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Promoting the Normativity of International Climate Change Law in China: An Interactional Account

Feiyue Li

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of Doctor of Philosophy

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Professor Vai Io Lo and Professor Michael Weir

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ABSTRACT

Climate change has become a major global concern that can only be resolved by the collective actions of all stakeholders influenced by climate change impacts. International law might play an important role in resolving the impacts of climate change by regulating legal relationships among individual countries. The role of China is critical for the success of the global response to climate change and the development of international climate change law. However, there is currently a lack of comprehensive research regarding China's interactions with the normative role of international climate change law based on its negotiation position, international commitments and domestic practices. This thesis aimed to investigate China's interactions with international climate change law by clarifying the normative role of international climate change law in China and the role of China in promoting the normativity of international climate change law. This thesis aimed to answer the following three interrelated questions: (a) What is the normativity of international law? (b) How does international climate change law exert its normative forces on individual countries? (c) What does China perceive the normativity of international climate change law, and how does China promote the normative qualities of international climate change law?

This thesis starts by making clear the conceptual foundation of the normativity of international law and setting out an analytical framework to delimit the basic parameters, components and processes through which the normativity of international law is generated and developed. The thesis then evaluates the status of the normativity of international climate change law in the United Nations' climate regime and explores China's perceptions and practices of the normative qualities of international climate change law based on its negotiation position and domestic actions on climate change. Finally, the thesis envisages the possible contributions of China to further promote the normative qualities of international climate change law.

KEY WORDS

China, climate change, international climate change law, normativity, fairness, determinacy, stringency, transparency, inclusiveness, coherence

DECLARATION BY AUTHOR

This thesis is submitted to Bond University in fulfilment of the requirements of the degree of Doctor of Philosophy.

This thesis represents my own original work towards this research degree and contains no material that has previously been submitted for a degree or diploma at this University or any other institution, except where due acknowledgement is made.

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ABBREVIATIONS

Ad Hoc Working Group on Further Commitments of Annex I Parties	AWG-KP
Ad Hoc Working Group on Long-Term Cooperative Action	AWG-LCA
Ad Hoc Working Group on the Durban Platform for Enhanced Action	ADP
Ad Hoc Working Group on the Paris Agreement	APA track
Alliance of Small Island States	AOSIS
assessment reports	AR
Belt and Road Initiative	BRI
Carbon Offsetting and Reduction Scheme for International Aviation	CORSIA
China Council for International Cooperation on Environment and Development	CCICED
China's National Climate Change Program	CNCCP
Clean Development Mechanism	CDM
Climate Action Tracker	CAT
Climate Change Performance Index	CCPI
Climate Technology Centre and Network	CTCN
common but differentiated responsibility	CBDR
Communist Party of China	CPC
Conference of the Parties Serving as the Meeting of the Parties to the Paris Agreement	CMA
Conference of the Parties Serving as the Meeting of the Parties to the Kyoto Protocol	CMP
Conferences of Parties	COPs
emission trading markets	ETMs
European Union	EU
Five-Year Plans	FYPs
Global Environment Facility	GEF
global market-based measures	GMBMs
Green Climate Fund	GCF
greenhouse gas	GHG
gross domestic product	GDP
Group 77	G77
ICAO 2020 Carbon Neutral Growth	CNG2020
intellectual property rights	IPR
intended nationally determined contribution	INDC
Intergovernmental Panel on Climate Change	IPCC
International Civil Aviation Organisation	ICAO
International Maritime Organization	IMO
least developed countries	LDCs
market-based measures	MBMs
measurement, reporting and verification	MRV
Ministry of Ecology and Environment	MEE

modalities, procedures and guidelines for the enhanced transparency framework of the Paris Agreement	MPGs
National Development and Reform Commission	NDRC
Nationally Appropriate Mitigation Actions	NAMAs
New Heaven School	NHS
People's Republic of China	PRC
Subsidiary Body for Scientific and the Technological Advice	SBSTA
Sustainable Development Mechanism	SDM
Technology Executive Committee	TEC
The United States of America	US
United Nations	UN
United Nations Development Programme	UNDP
United Nations Framework Convention on Climate Change	UNFCCC
World Trade Organisation	WTO

CHAPTER 1 INTRODUCTION

I RESEARCH QUESTIONS AND SIGNIFICANCE

The increase of greenhouse gas ('GHG')[1] emissions deeply affect the global physical, biological and human systems.[2] Climate change resulting from past and contemporary atmospheric GHG concentrations has become one of the biggest 'common concerns' of the international community,[3] imposing significant challenges to the health, livelihood, food security, water supply and economic prosperity of all nations.[4] To date, climate change has not only been widely recognised as an environmental issue, but also as an economic issue concerning the efficiency of climate change governance,[5] and a political issue regarding how to allocate responsibilities among different countries.[6] As an internationally shared 'public bad' problem, climate change can only be resolved with the collective actions of all countries worldwide.[7]

China[8] is expected to act as a leading player in international climate change governance.[9] In 2019, China's overall gross domestic product ('GDP') reached RMB 99.1 trillion, and remained

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[1] GHGs refer to 'those gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and re-emit infrared radiation': see *United Nations Framework Convention on Climate Change*, opened for signature 9 May 1992, GE.05-62220 (E) (entered into force 21 March 1994) art 1 ('*UNFCCC*').

[2] 'Impacts of Climate Change', *Sustainability for All* (Web Page) <https://www.activesustainability.com/climate-change/impacts-climate-change/>.

[3] Various international agreements have recognised climate change as a global common concern: see *Protection of Global Climate for Present and Future Generations of Mankind*, 70th plenary meeting, GA Res 43/53, UN Doc. A/RES/43/53 (6 December 1988); *UNFCCC* (n 1) para 1; *Paris Agreement*, opened for signature 22 April 2016 (entered into force 4 November 2016) preambular recital 11 ('*Paris Agreement*').

[4] On the impacts of climate change on these areas, see Valerie Masson-Delmotte et al, *Global Warming of 1.5 ℃. An IPCC Special Report on the Impacts of Global Warming of 1.5 ℃ above Pre-Industrial Levels and Related Global Greenhouse Gas Emission Pathways, in the Context of Strengthening the Global Response to the Threat of Climate Change, Sustainable Development, and Efforts to Eradicate Poverty* (IPCC, 6 October 2018) 9–10.

[5] Wagner and Weitzman have analysed climate change from an economic perspective: see generally Gernot Wagner and Martin L Weitzman, *Climate Shock: The Economic Consequences of a Hotter Planet* (Princeton University Press, 2015).

[6] 'Climate change is one of the major political and institutional, as well as ecological, challenges of our time': see Robert O Keohane, 'The Global Politics of Climate Change: Challenge for Political Science' (2015) 48(1) *Political Science & Politics* 19. See also 王学东 [Wang Xuedong], 《气候变化问题的国际博弈与各国政策研究》 [Global Negotiations, Domestic Politics: The Climate Change Politics across the World] (时事出版社 [Current Affairs Press], 2014) 2.

[7] Because it is publicly shared, the atmosphere is 'readily and freely available for unsustainable exploitation': see Lisa Schenck, 'Climate Change "Crisis" – Struggling for Worldwide Collective Action' (2008) 19(3) *Colorado Journal of International Law and Policy* 321.

[8] China, in this thesis, refers to the mainland of the People's Republic of China, excluding other regions of Hong Kong, Macau and Taiwan in Greater China.

[9] On media reports calling for a leading role of China: see 'Is China Challenging the United States for Global Leadership?', *The Economist* (Web Page, 1 April 2017) <https://www.economist.com/china/2017/04/01/is-china-

the second-largest economy worldwide.[10] China's GHG emissions have been increasing over the past four decades, as a side-effect of its rapid economic growth.[11] In 2017, the CO_2 emissions of China accounted for 27% of the global emissions, which was more than the combined emissions of the United States ('US') and the European Union ('EU').[12] The significant development of its economy and the increase in its GHG emissions have made the role of China in the international governance of climate change extremely important. Without the active engagement of China, the global efforts and actions on climate change cannot achieve a fruitful outcome.

To address the internationally shared problems caused by climate change, international law should play an important role in guiding formal and informal interactions of individual countries undertaken as part of their complex relationships in sharing international responsibilities on climate change.[13] However, the international world does not have a centralised legal system with well-institutionalised international legislature, executive and judicial departments.[14] In the decentralised international world, the normative role of international law is not shaped by a 'coercive sovereign' but formulated by various international actors based on their shared understandings and common practices.[15] International law has its internal attributes that serve to regulate or influence the behaviours of individual countries, demonstrating the legitimate foundations of international law. Meanwhile, individual countries' observation of the internal attributes of international law based on their domestic contexts is also important for the normative role of international law. Through continuous interactions,

challenging-the-united-states-for-global-leadership>; Isabel Hilton, 'China Emerges as Global Climate Leader in Wake of Trump's Triumph', *The Guardian* (Web Page, 23 November 2016) <https://www.theguardian.com/environment/2016/nov/22/donald-trump-success-helps-china-emerge-as-global-climate-leader>.

[10] 张静 [Zhang Jing] and 张宁 [Zhang Ning], 《国家统计局: 2019 年中国 GDP 占世界比重预计超 16%》 [National Bureau of Statistics: China's GDP Accounts for 16 per cent of the World in 2019], 澎湃新闻 [Pengpai News] (Web Page, 17 January 2020) <https://www.thepaper.cn/newsDetail_forward_5547111>.

[11] 'Data-CO_2 Emissions-China', *The World Bank* (Web Page) <https://data.worldbank.org/country/china?view=chart>.

[12] Corinne Le Quéré et al, *Global Carbon Budget 2018* (Earth System Science Data, 2018) 2167. The energy sector is by far the largest contributor to China's overall GHG emissions: see Climate Transparency, *Brown to Green: The G20 Transition to a Low-Carbon Economy 2018* (Climate Transparency, 2018) 3.

[13] International law plays an important role in building global consensus and setting commonly accepted legal norms to regulate the behaviours of individual countries: see Mehrdad Payandeh, 'The Concept of International Law in the Jurisprudence of HLA Hart' (2011) 21(4) *The European Journal of International Law* 994.

[14] Thomas M Franck, *The Power of Legitimacy among Nations* (Oxford University Press, 1990) 33 ('*The Power of Legitimacy among Nations'*).

[15] Katherine Vorderbruggen, 'A Rules-Based System? Compliance and Obligation in International Law' (Web Page, 9 October 2018) <https://www.e-ir.info/2018/10/09/a-rules-based-system-compliance-and-obligation-in-international-law/>. See also Part I of Chapter 2.

individual countries may build shared understandings and maintain common practices regarding certain international issues and voluntarily accept the normativity of international law.

Due to the importance of China and the relevance of the domestic contexts of individual countries in which the normative role of international law is formulated, this thesis aimed to explore China's interactions with international climate change law by determining what the normative role of international climate change law for China is, and what the role that China plays in the normativity of international climate change law is.[16] To this end, this thesis will address the following sub-questions in turn.

A *What is the Normativity of International Law?*

The normative role of international law in a decentralised international world is controversial, and various argument positions exist in international law and international relations by focusing on whether and how international law becomes normative.[17] Legal positivists in international law underestimate the normativity of international law by arguing that international law lacks formal legal features,[18] and realists in international relations also do not recognise the normative role of international law, but treat it as an instrument of individual countries to pursue their own policy objectives.[19] This thesis contended that critics of the value of international

[16] International climate change law refers to a large body of legal rules and principles in relation to climate change. International climate change law is not a 'self-contained regime' but a 'laboratory for the development of international law more generally': see Daniel Bodansky, Jutta Brunnée and Lavanya Rajamani, *International Climate Change Law* (Oxford University Press, 2017) 11.

[17] Legal positivists and natural law scholars take divergent viewpoints and methodologies on the nature of international law. Legal positivists account for international law based on state consent, legal reasoning and interpretation: see generally H L A Hart, *The Concept of Law* (Clarendon Press, 1961) 208–31; Hans Kelsen, *Principles of International Law* (The Lawbook Exchange Ltd., 2003). In contrast, natural law scholars support international law's close association with morality existed independent of state consent: see generally Lon L Fuller, *The Morality of Law* (Yale University Press, 1964). On the introduction of these two schools of thought, see Vai Io Lo, *Law and Society in China* (Edward Elgar Publishing Limited, 2020) 5–9.

[18] For instance, Austin maintains that international law is not law, but only 'positive morality': see John Austin, *The Province of Jurisprudence Determined* (The Universities Press, 1965) 9–32. Hart implies that international law seems like a primitive legal system: see Hart (n 17) 227–31. Franck argues that international law seems like the 'admirable aspiration and a filching of some word pictures from the gallery of national legal terminology': see Franck, *The Power of Legitimacy among Nations* (n 14) 39. See also Louis Henkin, *International Law: Politics and Values* (Martinus Nijhoff, 1995) 27 ('*International Law'*); Kelsen (n 17).

[19] Realists in the international relations view that international law only plays an epiphenomenal role or no role at all in international politics due to its inability to resolve international crises and regional conflicts effectively: see Gerry Simpson, 'The War in Iraq and International Law' (2005) 6(1) *Melbourne Journal of International Law* 167–88; David Wippman, 'Kosovo and the Limits of International Law' (2001) 25(1) *Fordham International Law Journal* 129–50; Başak Çalı, *The Authority of International Law: Obedience, Respect, and Rebuttal* (Oxford University Press, 2015) 5–8; Richard H Steinberg and Jonathan M Zasloff, 'Power and International Law' (2006) 100(1) *The American Journal of International Law* 64–87. Goldsmith and Posner view the concept of international legal obligation as 'theoretically unconvincing and practically irrelevant': see Jack Goldsmith and Eric Posner, *The Limits of International Law* (Oxford University Press, 2005) 15, 185–203.

law fail to acknowledge the normative role of international law properly.[20] International law does not have the luxury of compulsory and coercive powers obtained in domestic law,[21] but international law is essential to the work of global communities.[22] As asserted by Henkin in his monography *How Nations Behave*, 'almost all nations observe almost all principles of international law and almost all of their obligations almost all of the time'.[23] Wang also recognises the normative role of international law by arguing that the international world would enter into a jungle society in the absence of international law.[24] The core question involved in the debate over the normative role of international law is how to understand the normativity of international law in international communities.[25] This thesis aligns itself with the interactional theory of international law which recognises the obligatory forces of international law and highlights the interactional processes of how international law works in international communities. By so doing, this thesis builds the conceptual foundation and analytical framework for the examination of the interactions of international law and individual countries.

B *How is International Climate Change Law Normative?*

The normative role of international climate change law is controversial owing to the different understandings of how international climate change law works in the UN climate regime. The United Nations Framework Convention on Climate Change ('UNFCCC'),[26] the Protocol to the United Nations Framework Convention on Climate Change ('Kyoto Protocol')[27] and the Paris Agreement[28] are international treaties binding on all parties that have ratified them.[29] However,

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[20] The sceptics of international law may lead individual countries to justify their violation of international law 'when non-compliance is in their interest': see Payandeh (n 13) 978.

[21] International law is 'not of a legal order of obligation' paying tribute to the 'activities of courts, legislatures, executive departments and police forces': see Franck, *The Power of Legitimacy among Nations* (n 14) 33.

[22] It is argued that the 'governance without government' exists in the international community: see James N Rosenau and Ernst-Otto Czempiel, *Governance without Government: Order and Change in World Politics* (Cambridge University Press, 1992).

[23] As observed by Henkin, China accepted international law in principle even it was deemed as a 'revolutionary state' in the Mao's era: Louis Henkin, *How Nations Behave* (Columbia University Press, 2nd ed, 1979) 47, 110 ('*How Nations Behave*').

[24] 王江雨[Jiangyu Wang], 《权力转移、模式之争与基于规则的国际秩序：国际关系与国际法视角下的中美关系》[Power Transition, Battle of Models, and Rule-Based International Order: Sino-US Relations from the Perspectives of International Relations and International Law] (2018) 23(5) 中国法律评论 *China Law Review* 3–17.

[25] This thesis views 'normativity' as synonymous with 'obligation' and uses the terms 'normative' and 'obligatory' interchangeably.

[26] *UNFCCC* (n 1).

[27] *Protocol to the United Nations Framework Convention on Climate Change*, opened for signature 16 March 1998 (entered into force 16 February 2005) ('*Kyoto Protocol*').

[28] *Paris Agreement* (n 3).

[29] The UNFCCC, the Kyoto Protocol and the Paris Agreement fully satisfy the requirements of a treaty according to its final clauses regarding issues such as signature, ratification, entry into force and depositary functions: see *UNFCCC* (n 1) arts 20–5; *Kyoto Protocol* (n 27) arts 24–7; *Paris Agreement* (n 3) arts 20–9.

the legal bindingness of these treaties cannot be directly translated into a strong normativity exerted towards individual countries.[30] The Paris Agreement is, inter alia, criticised as being exerted only as a 'statement of good intentions' rather than establishing substantive rights and obligations for its party countries.[31] Some authors have criticised that the Paris Agreement has changed nothing but told a 'bizarrely unreal story'.[32] Many realist analysts do not accept that the legal bindingness of the Paris Agreement is meaningful in the absence of a centralised enforcement mechanism at the international level.[33] However, it has also been argued that the legal character of the Paris Agreement is relevant because it incurs a 'self-standing moral authority'[34] and its soft elements may encourage stable commitments and compliance in the long run.[35] The understandings of the normative role of international climate change law are different depending on the standards or perspectives that are used to evaluate its normativity.[36] Legal character, mainly in the form of legal bindingness, may signal stronger commitment; however, it only represents one of various aspects of the normative role of international climate change law.[37] In addition, enforcement mechanisms such as sanctions may potentially play important roles in promoting compliance, but they cannot simply lead to a strong sense of obligation in individual countries. If the enforcement measures are selectively or arbitrarily employed, they will undermine the normative role of international law. In this light, 'legal abstractions' is important to the normativity of international law, but it does not represent the totality of the normativity of international law. Instead of focusing on 'legal abstractions', the study of the normative role of international climate change law needs a correct understanding of the substantive contents and procedural rules of international climate change law, and the

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[30] As pointed out by Bodansky, legal character is only one of the factors that influence the normative role of the Paris Agreement, and transparency, accountability and precision also make a significant difference: see Daniel Bodansky, 'The Legal Character of the Paris Agreement' (2016) 25(2) *Review of European, Comparative & International Environmental Law* 142–50 ('The Legal Character of the Paris Agreement').

[31] Anne-Marie Slaughter, 'The Paris Approach to Global Governance', *Project-Syndicate* (Web Page, 28 December 2015) <https://www.project-syndicate.org/commentary/paris-agreement-model-for-global-governance-by-anne-marie-slaughter-2015-12?barrier=accesspaylog>; Richard Falk, 'Voluntary International Law and the Paris Agreement', *Global Justice in the 21st Century* (Web Page, 16 January 2016), <https://richardfalk.wordpress.com/2016/01/16/voluntary-international-law-and-the-paris-agreement/>.

[32] Clive L Spash, 'This Changes Nothing: The Paris Agreement to Ignore Reality' (2016) 13(6) *Globalizations* 931.

[33] Joost Pauwelyn and Lilliana Andonova, 'A "Legally Binding Treaty" or Not? The Wrong Question for Paris Climate Summit', *EJIL: Talk!* (Web Page, 4 December 2015) <https://www.ejiltalk.org/a-legally-binding-treaty-or-not-the-wrong-question-for-paris-climate-summit/>.

[34] Ibid.

[35] This approach is regarded as a 'treaty soft law' model: see Peter Lawrence and Daryl Wong, 'Soft Law in the Paris Climate Agreement: Strength or Weakness?' (2017) 26(3) *Review of European, Comparative & International Environmental Law* 279.

[36] See Part I of Chapter 2.

[37] Daniel Bodansky, 'Legally Binding Versus Non-Legally Binding Instruments' in Scott Barrett, Carlo Carraro and Jaime de Melo, *Towards a Workable and Effective Climate Regime* (CEPR Press and Ferdi, 2015) 155.

domestic buy-in of individual countries based on the realities of the UN climate regime.[38] This thesis aimed to provide a suitable approach for the understandings of the normative role of international climate change law, which not only examined why international climate change law is normative but also discovered how it is accepted by individual countries based on their domestic context.

C *How Does China Perceive and Promote the Normative Role of International Climate Change Law?*

The increased contemporary GHG emissions place great international pressure on China to shoulder more climate change responsibilities.[39] In response to the growing international pressure, China has been adjusting its negotiation position and international commitments. To date, China has pledged its international commitments to the global response to climate change by 2030,[40] and has ratified the Paris Agreement.[41] China's negotiation position and international commitments have attracted both admiration and criticism. Some media and observers view that China played a leading role in promoting international cooperation on climate change in the Paris Conference.[42] In contrast, others argue that China's international commitments are not ambitious enough to meet the long-term temperature goals in response to

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[38] It is argued that international climate change negotiations should focus on 'substantive commitments and credible follow-up procedures at the international level, and maximizing domestic buy-in at home': see Pauwelyn and Andonova (n 33).

[39] China has consistently been called upon to take more international responsibilities in response to climate change: see Jevans Nyabiage, 'China's Role "Critical" if World is to Meet Climate Change Targets', *South China Morning Post* (Web Page, 28 January 2020) <https://www.scmp.com/news/china/society/article/3047916/chinas-role-critical-if-world-meet-climate-change-targets>; Deborah Lehr, 'Is China Still the Global Leader on Climate Change? The World's Success in Bringing Down Global Greenhouse Gas Emissions is Dependent on the Actions of China, the World's Largest Carbon Emitter', *The Diplomat* (Web Page, 21 October 2019) <https://thediplomat.com/2019/10/is-china-still-the-global-leader-on-climate-change/>.

[40] China submitted its pre-2020 commitments to the UNFCCC Secretariat in 2010: see National Development and Reform Commission (NDRC), 'Cancun Pledge Pre-2020 Target' (28 January 2010). China submitted its pre-2030 commitments in its first intended nationally determined contribution (INDC) to the UNFCCC Secretariat in 2015: see NDRC, 'Enhanced Actions on Climate Change: China's Intended Nationally Determined Contribution' (30 June 2015) 5 ('Enhanced Actions on Climate Change').

[41] 'Status of Ratification', *UNFCCC* (Web Page) <https://unfccc.int/node/180417>.

[42] The leading role of China in the Paris Conference has been recognised by global mainstream media: see 'China and India Make Big Strides on Climate Change', *The New York Times* (Web Page, 22 May 2017) <https://www.nytimes.com/2017/05/22/opinion/paris-agreement-climate-china-india.html>; Hilton (n 9). A large number of observers also recognise China's active role in the Paris Conference: see Isabel Hilton and Oliver Kerr, 'The Paris Agreement: China's "New Normal" Role in International Climate Negotiations' (2017) 17(1) *Climate Policy* 48–58; Zhang Zhongxiang, 'Are China's Climate Commitments in a Post-Paris Agreement Sufficiently Ambitious?' (Working Paper No 1607, Australian National University, September 2016); Zhang Haibin et al, 'US Withdrawal from the Paris Agreement: Reasons, Impacts, and China's Response' (2017) 8(4) *Advances in Climate Change Research* 220–5; Avinash Godbole, 'Paris Accord and China's Climate Change Strategy: Drivers and Outcomes' (2016) 72(4) *India Quarterly* 361–74; Gao Yun, 'China's Response to Climate Change Issues after Paris Climate Change Conference' (2016) 7(4) *Advances in Climate Change Research* 235–40; He Jiankun, 'Global Low-Carbon Transition and China's Response Strategies' (2016) 7(4) *Advances in Climate Change Research* 204–12.

climate change established in the Paris Agreement.[43] Some analysts criticise China's international commitments as business-as-usual targets, with no meaningful compromises of its own interests.[44] Both the positive and negative observations of China's international practices are incomplete because they fail to comprehensively consider China's interactions with the normative requirements of international climate change law. Moreover, they have paid attention to the static status of China's negotiation position on climate change, but a comprehensive illustration of how China's negotiation position and domestic practices have evolved based on its domestic context is still absent. This thesis aimed to fill this gap by focusing on China's interactions with international law as reflected in the Paris Agreement and the relevant decisions of Conferences of Parties ('COPs'). Against the backdrop that China tends to hold different discourses on the normative role of international law based on its domestic contexts, this thesis helps identify the domestic rationales behind China's attitudes towards the normativity of international climate change law.[45]

In all, by answering the above-mentioned three sub-questions, this thesis aimed to provide a holistic picture of China's interactions with the normative role of international climate change law based on its own domestic context.

II LITERATURE REVIEW

China's interactions with international law have become a subject of great academic and practical interest. Many thought-provoking studies have paid attention to China's perceptions, engagement and application of international law in a broad range of fields.[46] China's

[43] The Climate Action Tracker (CAT) lists China's commitments as the category of 'highly insufficient': see 'Rating Countries', *CAT* (Web Page, 17 June 2019) <https://climateactiontracker.org/countries/china/fair-share/>. Another report also lists China's INDC targets as 'insufficient': see Robert Watson et al, 'The Truth Behind the Climate Pledges' (Research Report, The Universal Ecological Fund, November 2019) 18.

[44] For instance, Harris argues that China's INDC is only the 'codification of what would happen' in future: see Paul G Harris, 'China's Paris Pledge on Climate Change: Inadequate and Irresponsible' (2017) 7(1) *Journal of Environmental Studies and Sciences* 102–7.

[45] Cai has illustrated the different discourses of China and the US regarding the role of international law: see Cai Congyan, *The Rise of China and International Law: Taking Chinese Exceptionalism Seriously* (Oxford University Press, 2019) 5–8.

[46] China's interactions with general international law have attracted great scholarly attention: see Ann Kent, 'China's Changing Attitude to the Norms of International Law and its Global Impact' in Pauline Kerr, Stuart Harris and Qin Yaqing, *China's "New" Diplomacy: Tactical or Fundamental Change* (Palgrave Macmillan, 2008) 55–76 ('China's Changing Attitude'); Ann Kent, 'Compliance v Cooperation: China and International Law' (2006) (13) *Australian International Law Journal* 19–32 ('Compliance v Cooperation'); Ann Kent, *Beyond Compliance: China, International Organization, and Global Security* (Stanford University Press, 2007); Jia Bingbing, 'A Synthesis of the Notion of Sovereignty and the Ideal of the Rule of Law: Reflections on the Contemporary Chinese Approach to International Law' (2010) 53 *German Yearbook of International Law* 11–64; Gerald Chan, 'Globalisation Rules and China's Compliance' (2005) 41(1) *China Report* 59–67; Gørild Heggelund, 'China's Climate Change Policy: Domestic and International Developments' (2007) 31(2) *Asian Perspective* 155–191; Pitman B Potter, 'China and the International Legal System: Challenges of Participation' (2007) 191 *The China*

compliance with its international obligations established in international environmental law has also been investigated comprehensively.[47] In particular, Xue has expounded the contextual knowledge and legal techniques regarding China's perceptions and practices of international obligations.[48] Cai has studied China's interactions with the normative role of general international law from a political perspective.[49] Both Xue and Cai explain China's interactions with international law from a two-way interactive angle, providing useful insights for framing the methodologies and structures of this thesis.[50] In addition, He and his colleagues have moved further to propose a Chinese theory of international law, which features a realist viewpoint of China's interactions with international law.[51] For these proponents of Chinese theory of international law, the normative role of international law is recognised, but they attempt to embed China's perspectives in international lawmaking and interpretations.[52]

Regarding the normative role of international climate change law in China, there are two analytical strands, namely rationalist legal account and normative legal account, which have been formed in the relevant scholarly literature. The rationalist legal account interprets China's interactions with international climate change law from the perspective of self-interest.[53] For

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Quarterly 699–715; Xue Hanqin, 'China's Open Policy and International Law' (2005) 4(1) *Chinese Journal of International Law* 133–9 ('China's Open Policy and International Law'); Xue Hanqin, 'Chinese Observations on International Law' (2007) 6(1) *Chinese Journal of International Law* 83–93; Wang Zonglai and Bin Hu, 'China's Reform and Opening-Up and International Law' (2010) 9(1) *Chinese Journal of International Law* 193–203.

[47] On China's interactions with international environmental law, see Gerald Chan, *China's Compliance in Global Affairs: Trade, Arms Control, Environmental Protection, Human Rights* (World Scientific Publishing, 2006) 1 ('*China's Compliance in Global Affairs*'); Gerald Chan, 'China's Compliance in Global Environmental Affairs' (2004) 45(1) *Asia Pacific Viewpoint* 69–86; Gørild Heggelund and Ellen Bruzelius Backer, 'China and the UN Environmental Policy: Institutional Growth, Learning, and Implementation' (2007) 7(4) *International Environmental Agreements: Politics, Law and Economics* 415–38; Yu Hongyuan, 'International Institutions and Transformation of China's Decision Making on Climate Change' (2007) 1(4) *Chinese Journal of International Politics* 497–523; Gerald Chan, Pak K Lee and Lai-Ha Chan, 'China's Environmental Governance: The Domestic-International Nexus' (2008) 29(2) *Third World Quarterly* 291–314.

[48] Xue Hanqin, *Chinese Contemporary Perspectives on International Law: History, Culture and International Law* (BRILL, 2012) ('*Chinese Contemporary Perspectives on International Law'*).

[49] Cai (n 45).

[50] For instance, Xue studie China's attitudes towards international obligations based on its own contexts: see Xue, *Chinese Contemporary Perspectives on International Law* (n 48). Cai examines China's engagement with international regimes from perspectives of both 'norm compliance and norm entrepreneurship': see Cai (n 45) chapter 4.

[51] He Zhipeng and Sun Lu, *A Chinese Theory of International Law* (Springer Singapore, 2020).

[52] Ibid.

[53] Zhang argues that China's climate change policy has been driven by the following three principal forces: promoting the national interest, protecting the state sovereignty and enhancing the international image: see Zhang Zhihong, 'The Forces Behind China's Climate Change Policy: Interests, Sovereignty, and Prestige' in Paul G Harris (ed), *Global Warming and East Asia: The Domestic and International Politics of Climate Change* (Routledge, 2003) 66. On other works under the rationalist legal account, see Jonathan B Wiener, 'Climate Change Policy and Policy Change in China' (2008) 55(6) *UCLA Law Review* 1825; Joanna I Lewis, 'China's Strategic Priorities in International Climate Change Negotiations' (2007–08) 31(1) *Washington Quarterly* 155–74; Zhang Haibin, 'China and International Climate Change Negotiations', *Welt Trends Online-Dossier* (Web Page, 1 March 2013) <http://welttrends.de/res/uploads/Zhang_China-and-International-climate-change-negotiations.pdf>; Kent, 'Compliance v Cooperation' (n 46).

them, China is a self-serving actor that seeks to maximise its national interests when it chooses to accept or reject the normative role of international law.[54] Thus, international law tends to be used as an instrument by China to pursue its own national preferences.[55] Due to the diversity of its national interests,[56] as viewed by Potter, China has appeared to selectively adapt itself to the normative requirements of international law based on the compatibility of the international law with its national interests.[57] Therefore, it is argued that China will be more receptive to the normativity of international law because compliance with international law will enhance its international reputation and not lead to the detriment to its core interests in terms of territorial integrity and state sovereignty.[58] The rationalist legal account makes sense because it tells the fact that China, like many other countries,[59] is a rational international actor that accepts some treaties but rejects others mainly based on the calculation of national interests. However, this account ignores the role of morality in promoting China's progressive integration into the contemporary international order and its compliance with international law, and falls short of considering Chinese understandings of the legitimacy of international law based on its own philosophy and traditions.[60] Therefore, the rationalist legal account is incomplete for explaining China's interactions with the normative role of international climate change law.

The normative legal account concurs with the normative role of international law in regulating China's behaviours in the international arena. For the scholarship in this account, China's international identities and perceptions of its national interests are socially constructed and governed by international norms.[61] With the transformation of its international identities

[54] It is argued that China adopts a functionalist approach 'perceiving law primarily as a means to achieve concrete benefits': see Tim Rühlig, 'How China Approaches International Law: Implications for Europe' (Working paper, European Institute for Asian Studies, May 2018). See also generally Ryan James Mitchell, 'Realism in China's Reception and Contention of the Law of Nations' (PhD Thesis, Yale University, 2017).

[55] For realists Goldsmith and Posner, international law is 'largely a ceremonial usage designed to enable the speaker to assert policies and goals': see Goldsmith and Posner (n 19) 180.

[56] National interests include hard interests (such as economic benefits) and soft interests (such as state sovereignty and international reputation).

[57] The process of 'selective adaptation' involves the dynamics of perception, complementarity and legitimacy: see Potter (n 46) 699–715.

[58] Guzman views that the reputation mechanism can explain why rational states comply with international law: see Andrew T Guzman, 'A Compliance-Based Theory of International Law' (2002) 90(6) *California Law Review* 1823–87. International reputation is regarded as an important facilitator of China's compliance with international law: see Rühlig (n 54); Roda Mushkat, 'State Reputation and Compliance with International Law: Looking through a Chinese Lens' (2011) 10(4) *Chinese Journal of International Law* 703–37.

[59] For instance, the US have never shied away from its own national interests: see The White House, 'President Donald J Trump's Foreign Policy Puts America First' (Web Page, 30 January 2018) <https://www.whitehouse.gov/briefings-statements/president-donald-j-trumps-foreign-policy-puts-america-first/>.

[60] Pan Junwu 'Chinese Philosophy and International Law' (2011) 1(214) *Asian Journal of International Law* 233–48.

[61] Feng Xiao, 'China and Constructivism' (PhD Thesis, University of Miami, 2004) 239.

towards an important stakeholder of international governance, China will become a constructive participant in contemporary international lawmaking and implementation.[62] By recognising the normative role of international law, a variety of theoretical frameworks under this account has been further developed to explain why and how China accepts the normativity of international law.

Socialisation theory, which borrows the concept of socialisation from social sciences,[63] attempts to socialise China to accept the normativity of international law through 'acculturation', a mechanism 'by which actors adopt the beliefs and behavioural patterns of the surrounding culture'.[64] As argued by Pu, socialisation theory maintains a one-way interactional process, through which China can be socialised to know how to behave properly.[65] However, socialisation theory fails to consider China's own domestic context.[66] With the growth of the power status and global influences of China, many scholars assert that China has become not only a norm-taker but also a norm-maker or shaper in the development of international law.[67] The one-way socialisation appears not to comprehensively explain China's interactions with international climate change law. To criticise socialisation theory, Jinnah has traced China's normative contributions to the principle of common but differentiated responsibility ('CBDR') in international climate change negotiations and has concluded that China's interactions with international climate change law is a two-way reciprocal process.[68] Briefly, the two-way interactions between China and international law have shown that socialisation theory is no

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[62] Beverley Loke, 'Between Interest and Responsibility: Assessing China's Foreign Policy and Burgeoning Global Role' (2009) 5(3) *Asian Security* 201; Xue, 'China's Open Policy and International Law' (n 46); Wang and Hu (n 46) 193–203.

[63] On the introduction of socialisation in social sciences, see Peter L Berger and Thomas Luckmann, *The Social Construction of Reality* (Anchor Books, 1967) 130.

[64] Ryan Goodman and Derek Jinks, 'How to Influence States: Socialization and International Human Rights Law' (2004) 54(3) *Duke Law Journal* 626. See also Alastair Iain Johnston, *Social States: China in International Institutions, 1980–2000* (Princeton University Press, 2008) 1; Charlotte Epstein, 'Stop Telling Us How to Behave: Socialization or Infantilization?' (2012) 13(2) *International Studies Perspectives* 135–45.

[65] Pu Xiaoyu, 'Socialisation as a Two-Way Process: Emerging Powers and the Diffusion of International Norms' (2012) 5(4) *Chinese Journal of International Politics* 341–67.

[66] Wang determined the limits of socialisation theory in her research of China's attitudes towards multilateralism in the economic and security realms: see Wang Hongying, 'Multilateralism in Chinese Foreign Policy: The Limits of Socialization' (2000) 40(3) *Asian Survey* 475–91.

[67] Pu (n 65); Brian Job and Anastasia Shesterinina, 'China as a Global Norm Shaper: Institutionalization and Implementation in the Responsibility to Protect' in Alexander Betts and Phil Orchard (eds), *Implementation and World Politics* (Oxford University Press, 2014) 144–59; James Reilly, 'A Norm-Taker or a Norm-Maker? Chinese Aid in Southeast Asia' (2012) 21(73) *Journal of Contemporary China* 71–91; Henry Gao, 'China's Ascent in Global Trade Governance: From Rule Taker to Rule Shaker and Maybe Rules Maker?' in Carolyn Deere Birkbeck (ed), *Making Global Trade Governance Work for Development: Perspectives and Priorities from Developing Countries* (Cambridge University Press, 2011) 153–80.

[68] Sikina Jinnah, 'Makers, Takers, Shakers, Shapers: Emerging Economies and Normative Engagement in Climate Governance' (2017) 23(2) *Global Governance* 285–306.

longer capable of explaining China's perceptions and practices of the normativity of international climate change law.

New Heaven School ('NHS') contends that the normativity of international law comes from the process of communication, in which three coaxial messages (policy content, authority signal and control intention) are modulated to create and sustain expectations of authority and control in the target audience.[69] Yet, the NHS is essentially policy-oriented,[70] which may enable international law to be utilised to serve the policy purposes of powerful countries,[71] and undermine the fairness and objectivity of international law.[72] Hence, the NHS is not a persuasive analytical framework for understanding the interactions between China and international climate change law.

Legalisation theory is designed to legalise international relations with formal legal features or indicators. Abbott and his colleagues define legalisation as having a particular set of characteristics: obligation, precision and delegation,[73] and recognise that legalisation is a dynamic concept, containing a multi-dimensional continuum among hard legalisation, soft legalisation and non-legalisation, because none of the characteristics of legalisation can be fully operationalised.[74] Legalisation theory provides a working definition or a series of indicators to frame the understandings of China's international behaviours from a formal, legalised perspective, but it does not consider the substantive contents of international law or extend its normative indicators beyond the three narrowly defined elements.[75] Thus, legalisation theory is incomplete for describing the normative characteristics of international climate change law.

Transnational legal process theory, proposed by Harold Hongju Koh, acknowledges that the reception of the normativity of international law in individual countries is a dynamic process,

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[69] W Michael Reisman, 'International Law-Making: A Process of Communication' (1981) 75(April 23–25) *Proceedings of the Annual Meeting (American Society of International Law)* 119; Myres S McDougal and W Michael Reisman, 'The Prescribing Function in World Constitutive Process: How International Law is Made' (1980) 6(2) *Yale Studies in World Public Order* 249–84.

[70] Chen Lungchu, *An Introduction to Contemporary International Law: A Policy-Oriented Perspective* (Oxford University Press, 2015).

[71] Brunnée and Toope think that the NHS may be used to serve the spread of 'post-war American liberalism and idealism': see Jutta Brunnée and Stephen J Toope, 'International Law and Constructivism: Elements of an Interactional Theory of International Law' (2000) 39 *Columbia Journal of Transnational Law* 25 ('International Law and Constructivism').

[72] 刘志云[Liu Zhiyun],《纽黑文学派：冷战时期国际法学的一次理论创新》[New Heaven School: A Theoretical Revolution of International Law in Cold War Period] (2007) 94(5)甘肃政法学院学报 *Journal of Gansu Institute of Political Science and Law* 134–42.

[73] Kenneth W Abbott et al, 'The Concept of Legalization' (2000) 54(3) *International Organization* 401.

[74] Ibid 402; Nina Hall and Åsa Persson, 'Global Climate Adaptation Governance: Why is it not Legally Binding?' (2018) 24(3) *European Journal of International Relations* 544.

[75] Abbott et al (n 73) 402.

encompassing normative interaction, interpretation and internalisation, continuously promoted by 'transnational norm entrepreneurs, governmental norm sponsors, transnational issue networks, and interpretive communities'.[76] Thus, China may follow the normative prescription of international legal norms when the legal norms are internalised into China's domestic legal spheres through the continuous interactions of various domestic actors.[77]

Legitimacy theory emphasises that the 'compliance pull' of international law arises from its legitimacy, instead of coercion, powered by the normative qualities of international law and due processes of international lawmaking.[78] It correctly explains the interactions of individual countries in the anarchic international world based on the legitimacy of international law; however, the international/domestic interactions of individual countries are not sophisticatedly elaborated in legitimacy theory.[79]

The interactional theory of international law,[80] proposed by Brunnée and Toope, views that (a) the establishment of the normativity of international law is only possible within specific contexts where various actors have developed certain shared understandings about what they hope to achieve together; (b) the normativity of international law is mainly contributed by the 'criteria of legality' of international law; and (c) establishing and promoting the normativity of international law require sustained effort via a community of practices.[81] The interactional theory of international law highlights the reciprocity of international lawmaking and the

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[76] Harold Hongju Koh, 'Why Transnational Law Matters' (2006) 24 *Penn State International Law Review* 746. See also Harold Hongju Koh, 'Why Do Nations Obey International Law?' (1997) 106(8) *The Yale Law Journal* 2599–659 ('Why Do Nations Obey International Law?'); Harold Hongju Koh, '1998 Frankel Lecture: Bringing International Law Home' (1998) 35(3) *Houston Law Review* 623–81 ('1998 Frankel Lecture'); Harold Hongju Koh, 'The 1994 Roscoe Pound Lecture: Transnational Legal Process' (1996) 75(1) *Nebraska Law Review* 181–207.

[77] The normativity of international law may be accepted by individual countries through 'executive action, judicial interpretation, legislative action, or some combination of three': see Koh, 'Why Do Nations Obey International Law?' (n 76) 2657.

[78] Franck argues that the legitimacy of international law is 'a property of a rule or rule-making institution which itself exerts a pull towards compliance on those addressed normatively': see Franck, *The Power of Legitimacy among Nations* (n 14) 16–18.

[79] Ibid chapter 12.

[80] On the interactional theory of international law, see Jutta Brunnée and Stephen J Toope, 'Environmental Security and Freshwater Resources: Ecosystem Regime Building' (1997) 91(1) *American Journal of International Law* 26–59; Jutta Brunnée and Stephen J Toope, 'The Changing Nile Basin Regime: Does Law Matter?' (2002) 43(1) *Harvard International Law Journal* 105–59; Martha Finnemore and Stephen J Toope, 'Alternatives to "Legalization": Richer Views of Law and Politics' (2001) 55(3) *International Organization* 743–58; Brunnée and Toope, 'International Law and Constructivism' (n 71) 19–74; Jutta Brunnée and Stephen J Toope, 'Interactional International Law: An Introduction' (2011) 3(2) *International Theory* 307–18. Brunnée and Toope apply the interactional theory of international law to three case studies relating to climate change, torture and the use of force: see Jutta Brunnée and Stephen J Toope, *Legitimacy and Legality in International Law: An Interactional Account* (Cambridge University Press, 2010) ('*Legitimacy and Legality*').

[81] Brunnée and Toope, *Legitimacy and Legality* (n 80) chapter 1.

relevance of individual countries' understandings and practices to the normativity of international law.[82] Therefore, China's interaction with international law is a two-way process, including both a norm-taking process based on the legitimacy or legality of international law and a norm-making process based on China's domestic contexts. By bringing together the objective and subjective views of international law, the interactional theory of international law makes more sense to catch the nature of international law and aids in developing the jurisprudential account of international law.

The interactional theory of international law is a reliable analytical framework to understand China's interactions with international climate change law; however, the 'criteria of legality' are inadequate for accounting for the entire picture of the normative characteristics of international law, and should be strengthened by legalisation theory and legitimacy theory.[83] Meanwhile, the interactional theory of international law has gone into the domestic sphere of individual countries, but its explanation of how domestic factors of individual countries influence their attitudes towards the normative role of international law lacks sophistication.[84] Therefore, transnational legal process theory may help to enable an in-depth explanation regarding if, how and under what conditions the normativity of international law is generated and developed in China's domestic contexts.[85]

The evolution of China's negotiation position in different phases of international climate change negotiations has been studied by many scholars and analysts,[86] and China's domestic laws and policies regarding climate change have also been elaborated.[87] However, little has been done to comprehensively examine how China perceives and practices the normativity of international climate change law by using a suitable analytical framework. This thesis builds its analytical framework mainly based on the interactional theory of international law and combines the merits of legalisation theory, legitimacy theory and transnational legal process theory to

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[82] Ibid 124. Brunnée and Toope argue that '[I]f international norms remain contested at the domestic level, the result from the standpoint of international law may be non-compliance or, if the contestation is widespread and sustained, a shift in the norm itself.'

[83] See Part II(B) of Chapter 2.

[84] On Brunnée and Toope's explanation of the interplay between international law and domestic law, see Brunnée and Toope, *Legitimacy and Legality* (n 80) 114–21.

[85] Koh, 'Why Do Nations Obey International Law?' (n 76); Koh, '1998 Frankel Lecture' (n 76).

[86] Ann Kent, 'China and the Atmospheric Environment: The United Nations Environment Programme' in *Beyond Compliance: China, International Organizations, and Global Security* (Sandford University Press, 2007) 144–80; Yu Hongyuan, *Global Warming and China's Environmental Policy* (Nova Science Publisher, Inc., 2008); Yu Hongyuan, 'Rethinking the Influences of International Regimes on China: The UNFCCC and the Development of Policy Coordination in China' (PhD Thesis, Chinese University of Hong Kong, 2004) ('Rethinking the Influences of International Regimes on China').

[87] Alexander Zahar, Hao Zhang and Xiangbai He (eds), *Climate Change Law in China in Global Context* (Taylor & Francis Group 2020). See also Chen Gang, *China's Climate Policy* (Taylor & Francis Group, 2012) 21.

comprehensively investigate China's interactions with the normative role of international climate change law.

III METHODOLOGY AND OUTLINE OF THE THESIS

This thesis mainly analysed the texts of international climate change agreements and COP decisions adopted at various stages of international climate change negotiations to draw the normative contents and qualities of international climate change law. In addition, moving beyond the static identification and analysis of treaty texts, this thesis examined the processes of China's participation in international climate change negotiations, through which the evolution of China's perceptions and practices of the normative qualities of international climate change law are examined.

The relevant data and information were collected from a range of written primary and secondary sources. The primary sources included several official and semi-official documents such as international agreements, COP decisions, political statements, policy papers and databases, and the secondary sources covered books, academic articles, research reports, and so on. The official UN documents generated in international climate change negotiations were collected from the UNFCCC website; China's negotiation position was drawn from the chronological reports made by the Earth Negotiations Bulletin and the UNFCCC document portal; China's GHG emission information and climate change measures were obtained from the reports and statements made by the National Development and Reform Commission ('NDRC'), the National Bureau of Statistics and other government departments in China.

Chapter 2 lays the conceptual foundation and analytical framework for this thesis by addressing the questions of what the normativity of international law is and how it works in international communities. This chapter defines the normativity of international law as the authority or obligatory forces of international law exerted towards the behaviours of individual countries. This definition suggests that the normativity of international law is self-generated and developed by individual countries when there is an alignment between the legitimacy of international law and individual countries' receptions of the legitimacy of international law. In addition, this chapter creates a workable analytical framework for this thesis by arguing that the normativity of international law should be analysed from three perspectives: the status of shared understandings, the normative qualities of international law, and individual countries' receptions of the normative qualities of international law. Thus, this chapter provides a workable, operational mechanism to examine the normativity of international climate change

law and explore China's perceptions and practices of the normative qualities of international climate change law.

From Chapter 3, this thesis starts to employ the analytical framework for studying the normative role of international climate change law. The first section of this chapter examines the development of shared understandings regarding climate change problems and the ways of addressing these. Some shared and contested understandings between different groups of countries in the UN climate regime have been identified and analysed. Then, the second section investigates the normative qualities of international climate change law based on the texts of international climate change agreements and decisions of COPs concluded at various stages of international climate change negotiations. The investigation, inter alia, focuses on the development and shortcomings of the six normative qualities of the Paris Agreement and its Rulebook.

Chapter 4 turns to address the question of China's reception of the normative qualities of international climate change law based on its negotiation position. China's negotiation position has always been in a dynamically evolved process. This chapter examines the changed and unchanged negotiation position of China throughout different phases of international climate change negotiations, and discusses the dynamic factors that shape or transform its negotiation position on the six normative qualities of international climate change law. China's domestic understandings of climate change problems, and its perceptions of international identity, power status and national interests are comprehensively examined to understand how its negotiation position and these dynamic factors are interacted.

Chapter 5 examines China's domestic practices of the normative qualities of international climate change law. This chapter focuses on China's implementation of its pre-2020 commitment targets and obligations of reporting, the ambitions and determinacy of the contents of its pre-2030 commitments, and the legal status of international climate change law in its domestic legal systems. In doing so, this chapter aimed to ascertain whether China's domestic practices are coherent with the normative requirements of international climate change law, and what shortcomings still exist in China's domestic policies and legal system. Given the shortcomings in its domestic practices, this chapter also presents some practical recommendations for China to further promote the normative qualities of international climate change law.

Chapter 6 completes the investigations of China's interactions with international climate change

law by summarising the main findings of this project and outlining the general implications of the interactional account for the understandings of China's interactions with international law.

CHAPTER 2 THE CONCEPTUAL FOUNDATION AND ANALYTICAL FRAMEWORK OF THE NORMATIVITY OF INTERNATIONAL LAW

This chapter provides the conceptual foundation and analytical framework for this thesis by addressing two main questions: (a) what is the normativity of international law and (b) how does it work in international communities? The first section of this chapter addresses the conceptual foundation of this thesis by identifying the normativity of international law based on an interactional account of international law. It explains the normativity of international law as the authority or obligatory forces of international law exerted towards the behaviours of individual countries and presents an argument that the normativity of international law is self-generated and developed by individual countries, relying on the shared understandings of the legitimacy of international law achieved in a community.

The second section of this chapter creates an analytical framework to examine whether and how the normativity of international law is established and promoted in international communities. It maintains that the normativity of international law should be analysed from three perspectives: the status of shared understandings, the normative qualities of international law and the reception of the normative qualities of international law in individual countries. This analytical framework can be used to examine the development of the normativity of international law in the field of global climate change governance and China's perspectives of the normativity of international climate change law.

I CONCEPTUAL FOUNDATION: AN INTERACTIONAL ACCOUNT OF THE NORMATIVITY OF INTERNATIONAL LAW

Norms provide standards of appropriateness for guiding or regulating actors' behaviours in a community.[88] Actors, through norms, can understand what behaviours are appropriate or inappropriate when they interact with each other in the community.[89] Norms have a

[88] Steven Vago and Steven E Barkan, *Law and Society* (Routledge, 2017) 19.

[89] 'Collective expectations for the proper behaviour of actors' can be established in a community: see Peter J Katzenstein, 'Introduction: Alternative Perspectives on National Security' in Peter J Katzenstein (ed), *The Culture of National Security: Norms and Identity in World Politics* (Columbia University Press, 1996) 5.

prescriptive nature,[90] which is reflected as the quality of being 'outness'[91] or 'habitual obedience' to authorities.[92] The prescriptive nature of norms distinguishes itself from other types of social rules and makes itself normative in the interactions of actors.[93] Normativity is the quality of being normative. It describes a situation or process through which something becomes authoritative or obligatory.[94] In this light, normativity acts as the authority or obligatory forces of norms to give rational actors appropriate reasons to act.[95] By following the normativity of norms, certain behaviours of actors can be justified as appropriate or inappropriate.[96]

The international world does not have a centralised legal system with well-institutionalised international legislature, executive and judicial departments,[97] and state sovereignty remains the very centre of the authority of individual countries.[98] However, the decentralised international world is not a norm vacuum space.[99] Instead, individual countries behave in international communities by following certain legal norms to resolve collectively shared problems. International law per se is a collection of legal norms governing international relations.[100] It provides individual countries with socially supported legal norms when they define required conducts, outline the parameters of interactions and resolve international

[90] Daniel Bodansky, *The Art and Craft of International Environmental Law* (Harvard University Press, 2010) 87 ('*Art and Craft of International Environmental Law*').
[91] Martha Finnemore and Kathryn Sikkink, 'International Norm Dynamics and Political Change' (1998) 52(4) *International Organization* 891.
[92] The word 'obedience' is regarded by Hart as deference to authority: see Hart (n 17) 50.
[93] 'How to Distinguish Norms from Values in Phenomenology and Mind', *Davide Fassio* (Web Page) <file://datatwo/13344908$/Profile/Downloads/19577-39340-1-PB.pdf>.
[94] 'The Normativity of Law: What is the Problem?' Leslie Green (Web Page) <https://www.uvic.ca/victoria-colloquium/assets/docs/Green_Normativity.pdf>.
[95] Natural law theories view the normativity of law as the obligatory forces of law: see Mehmet Ruhi Demiray, 'Natural Law Theory, Legal Positivism, and the Normativity of Law' (2015) 20(8) *The European Legacy* 810.
[96] Millar conceptualises normativity as 'a reason for some agent or agents to do something': see Alan Millar, *Understanding People: Normativity and Rationalizing Explanation* (Clarendon Press, 2004) 92–3. Raz explains that normativity often amounts to a demand for the justification of reason: see Joseph Raz, 'Explaining Normativity: On Rationality and the Justification of Reason' (1999) 12(4) *Ratio* 354–5, 379.
[97] Franck, *The Power of Legitimacy among Nations* (n 14) 33.
[98] Ayten Bayram, 'How International Law Obligates: International Identity, Legal Obligation, and Compliance in World Politics' (PhD Thesis, Ohio State University, 2011) 2.
[99] Henkin, *How Nations Behave* (n 23) 47.
[100] This is Bentham's classic definition of international law: see Gunnar M Ekeløve-Slydal, 'Jeremy Bentham's Legacy: A Vision of an International Law for the Greatest Happiness of All Nations' in Morten Bergsmo and Emiliano J Buis (eds), *Philosophical Foundations of International Criminal Law: Correlating Thinkers* (Torkel Opsahl Academic EPublisher, 2018) 430.

disputes.[101] Thus, international law can be normative in the decentralised international world.[102]

To play a normative role, international law needs to manifest its authority or obligatory forces to individual countries, through which individual countries can have adequate 'reasons for action' in international communities.[103] This requires settling three major questions: the source of normativity, the degree of normativity and the process of promoting normativity. The source of normativity is about where the normativity of international law comes from, be it state consent, morality or power.[104] The degree of normativity, ranging from hard to soft obligation, involves the extent of obligatory forces that international law exerts towards individual countries.[105] The process of promoting normativity is a process-oriented perspective of the normativity of international law, focusing on the process of how the obligatory forces of international law are generated, interpreted or developed within a given community.[106]

There exist two accounts that explain how the normativity of international law is progressively generated and developed based on two different logics: the logic of consequence and the logic of appropriateness.[107] The account based on the logic of consequence maintains that individual countries accept or reject the normativity of international law pursuant to the consequences of following or breaking international law, such as stimulation with economic benefits or fears of

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[101] Dinara Ziganshina, *Promoting Transboundary Water Security in the Aral Sea Basin Through International Law* (BRILL, 2014) 18. Law per se is a normative concept, establishing legal norms to regulate human conduct: see Demiray (n 95) 807.

[102] It is argued, however, that the normative character of international law is not a necessary condition for international law: see Jean d'Aspremont, *Formalism and the Sources of International Law: A Theory of the Ascertainment of Legal Rules* (Oxford University Press, 2011) 30.

[103] Spaak argues that the normativity of law accounts for 'the nature of the legal ought or legal reasons for action': see Torben Spaak, 'Kelsen and Hart on the Normativity of Law' in Peter Wahlgren (ed), *Perspectives on Jurisprudence: Essays in Honour of Jes Bjarup* (Stockholm Institute for Scandinavian Law, 2005) 398.

[104] On the legal accounts of the source of international law, see Samantha Besson, 'The Authority of International Law - Lifting the State Veil' (2009) 31(3) *Sydney Law Review* 344; Samantha Besson and John Tasioulas, *The Philosophy of International Law* (Oxford University Press, 2010) chapter 7.

[105] The normativity with various degrees is regarded as 'relative normativity': see Ulrich Fastenrath, 'Relative Normativity in International Law' (1993) 4(3) *European Journal of International Law* 305–40; Tomasz H Widłak, 'Remarks on the Normativity of International Legal Rules and Global Constitutionalism' (2016) 29(4) *Ratio Juris* 506–18.

[106] The process-oriented normativity is regarded as 'relational normativity': see Matthias Vanhullebusch, *Global Governance, Conflict and China* (BRILL, 2018) 40.

[107] March and Olsen explain the rationales behind the behaviours of international actors based on the logics of consequence and appropriateness: see James G March and Johan P Olsen, 'The Institutional Dynamics of International Political Orders' (1998) 52(4) *International Organization* 943–69. Wiener proposes three logics of how norms work in society: the logics of appropriateness, arguing and contestedness: see Antje Wiener, 'The Dual Quality of Norms and Governance beyond the State: Sociological and Normative Approaches to "Interaction"' (2007) 10(1) *Critical Review of International Social and Political Philosophy* 47–69. See also Bodansky, *Art and Craft of International Environmental Law* (n 90) 92.

external sanctions.[108] Morality plays little part in influencing the attitudes of individual countries towards the normativity of international law.[109] In contrast, the account based on the logic of appropriateness regards the normativity of international law from a moral dimension.[110] According to this account, morality enables individual countries to internalise shared legitimate discourses, knowledge and values into their identities, and thus, leads to a sense of normativity.[111] The appropriateness-based account is overly dependent on the persuasiveness of morality in shaping the behaviours of individual countries and lacks explicating the varied circumstances of individual countries, whereas the account based on the logic of consequence disavows the moral dimension of international law, and thus may mislead the study of the normativity of international law to a narrow calculation of self-interests.[112]

Given the inadequacies of the two above-mentioned accounts, an interactional account is a suitable alternative with any prospect of success to explain why some countries accept the normativity of international law while others do not. The interactional theory of international law highlights both the 'criteria of legality' and the continuous interactions of individual countries to embed the 'criteria of legality' to their practices.[113] As argued by Brunnée and Toope, the normativity of international law 'rests in an approach that integrates norm properties and legal process through an interactional concept of obligation'.[114] The interactional theory of international law recognises 'norm properties' as the qualities of international law from a third-person point of view to manifest what international law ought to be.[115] Meanwhile, it also considers the legal process through which the normativity of international law is accepted by

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[108] This logic is mainly employed by realists in the international relations and positivists in the international law. Realists contend that international law plays an epiphenomenal role or no role at all in international politics. Morgenthau and Schwarzenberger subject the role of international law to the hard power of individual countries: see Hans J Morgenthau, 'Positivism, Functionalism, and International Law' (1940) 34(2) *The American Journal of International Law* 260 ('Positivism, Functionalism, and International Law'); Georg Schwarzenberger, *The Frontiers of International Law* (Stevens & Sons Limited, 1962); Kenneth N Waltz, *Theory of International Politics* (Waveland Press Inc., 2010). Legal positivists maintain a formal account of international law by focusing on state consent, legal reasoning and interpretation: see Henkin, *International Law* (n 18) 27; Hart (n 17) 208–31; Kelsen (n 17).

[109] As argued by Goldsmith and Posner, morality has little explanatory value and is not supported by international realities: see Goldsmith and Posner (n 19) 15.

[110] Natural law scholars purport that international law's normativity fundamentally relies on morality instead of state consent. See generally Fuller (n 17); John Finnis, *Natural Law and Natural Rights* (Clarendon Press, 1980) 81; John Finnis, 'Natural Law: The Classical Tradition' in J Coleman and S Shapiro (eds), *The Oxford Handbook of Jurisprudence and Philosophy of Law* (Oxford University Press, 2002) 37–8.

[111] Based on this approach, individual countries emphasise their perceived similarities among the group members of a community; see Moshe Hirsch, *Invitation to the Sociology of International Law* (Oxford University Press, 2015) 99.

[112] As argued by Bayram, the appropriateness-based account 'cannot fully explicate the variation politicians exhibit in the extent of felt obligation to international law': see Bayram (n 98) 31.

[113] Brunnée and Toope, *Legitimacy and Legality* (n 80) 124.

[114] Ibid 125.

[115] Ibid chapter 4.

individual countries from a first-person perspective.[116] In this light, domestic legal processes do not separate but feed into the creation and development of the normativity of international law, and continuous interactions give international legal norms considerable space or distinctive ability to be internalised within the identities of individual countries. In respect to its above-mentioned advantages, this chapter presents the interactional account based on the interactional theory of international law. The normativity of international law under the interactional account can be understood from three perspectives.

First, the normativity of international law is generated and developed from the internal perspective of individual countries, resting on their internal acceptance rather than external enforcement or sanction.[117] According to the interactional theory of international law, the power of international law is reflected as 'a felt sense of obligation'.[118] Bayram also maintains that legal obligation is 'an actor's acknowledgement of international law's governing authority' from a psychological perspective.[119] International law is not purely standards for appropriate behaviours, but is also processes that allow individual countries to 'pursue goals, share meanings, communicate with each other, criticize assertions, and justify action'.[120] Through continuous interactions, individual countries may shape their shared understandings of the appropriateness of behaviours, which also fundamentally influences the normative contents of international law and serves to establish or reinforce the normativity of international law.[121]

Second, international law is normative because it is legitimate at least.[122] Legitimacy is an inherent characteristic of international law.[123] As Raz said, 'all law must enjoy legitimate

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[116] Ibid.

[117] The normativity of international law does not rely on 'the cause of obedience in a hierarchically structured society': see Franck, *The Power of Legitimacy among Nations* (n 14) 40. As argued by Bodansky, 'what makes a norm hard is not that violations can be sanctioned' by external bodies. Instead, it is a matter of the 'state of mind of the actors that comprise the relevant community': see Bodansky, *Art and Craft of International Environmental Law* (n 90) 101–12.

[118] Brunnée and Toope, *Legitimacy and Legality* (n 80) 124.

[119] Bayram (n 98) 79.

[120] Friedrich Kratochwil, *Rules, Norms, and Decisions: on the Conditions of Practical and Legal Reasoning in International Relations and Domestic Affairs* (Cambridge University Press, 1991) 11.

[121] As argued by Brunnée and Toope, interactions shape norms: see Brunnée and Toope, *Legitimacy and Legality* (n 80) 118.

[122] The concept of legitimacy is generally used to justify the authority of a decision, argument, policy, legal rule or institution. Bodansky views that the concept of legitimacy is related to the justification and acceptance of political authority: see Daniel Bodansky, 'The Legitimacy of International Governance: A Coming Challenge for International Environmental Law?' (1999) 93(3) *The American Journal of International Law* 601. Buchanan and his colleagues conclude that the legitimacy of an institution is the right to rule or govern the institution: see Allen Buchanan, 'The Legitimacy of International Law' in Samantha Besson and John Tasioulas, *The Philosophy of International Law* (Oxford University Press, 2010) chapter 3.

[123] Brunnée and Toope argue that international law exists not because of formal state consent but because it meets certain legitimacy criteria: see Brunnée and Toope, 'International Law and Constructivism' (n 71) 19–74.

authority, or it fails in meeting its inherent claim to authority'.[124] The legitimacy of international law embodies the moral rightness of international law, which may enable individual countries to redefine their identities and perceptions of interests, and to internalise the normative role of international law into their own identities and interests.[125] When an international legal rule is perceived as legitimate to a high degree, the normative role of the legal rule will be more likely to be accepted and voluntarily complied with by individual countries.[126]

Last, the normativity of international law is not only concerned with the legitimacy of international law but also with how individual countries perceive and practise the legitimacy of international law within a community.[127] According to the interactional theory of international law, the legitimacy of international law only makes sense when it is observed by individual countries.[128] Otherwise, the legitimacy of international laws is likely to become a type of 'empty pledges'.[129] As correctly stated by Cai, international legal order must exist within a community where individual countries interact with each other to build some type of social and legal connections.[130] Through continuous connections and interactions of individual countries within the community, a normative community may be formed over time.[131] The normative community largely serves to foster the formation of shared understandings of the normative role of international law and to produce sustained legal relationships among individual countries.[132] When a community has achieved a solid social integration and shared understandings, the legitimacy of international law will be accepted by the community and the normativity of international law is, in turn, established and developed.[133] In contrast, when

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Finnemore also contends that the norm is viewed as binding due to its qualities of 'oughtness': see Martha Finnemore, 'Are legal norms distinctive?' (2000) 32(3) *Journal of International Law & Politics* 701–3.

[124] Joseph Raz, 'About Morality and the Nature of Law' (2003) 48(1) *The American Journal of Jurisprudence* 15.

[125] This assumes 'take-for-granted' qualities of international law: see Bodansky, *Art and Craft of International Environmental Law* (n 90) 91. It is argued that a rule is legitimate when it is internalised into individual countries: see Ian Hurd, 'Legitimacy and Authority in International Politics' (1999) 53(2) *International Organization* 381 ('Legitimacy and Authority in International Politics').

[126] Kumm refers to the legitimacy of international law as the moral forces of international law or the duty to obey international law: see Mattias Kumm, 'The Legitimacy of International Law: A Constitutionalist Framework of Analysis' (2004) 15(5) *European Journal of International Law* 908.

[127] International law itself is a social construct: see Carlo Focarelli, *International Law as Social Construct: The Struggle for Global Justice* (Oxford University Press, 2012) 9.

[128] Brunnée and Toope, *Legitimacy and Legality* (n 80) 52–4.

[129] Bodansky, *Art and Craft of International Environmental Law* (n 90) 252.

[130] Cai (n 45) 14–15.

[131] Brunnée and Toope, *Legitimacy and Legality* (n 80) 69. The concept of 'community of practice' is pioneered by social learning theorist Wenger: see generally Etienne Wenger, *Communities of Practice: Learning, Meaning, and Identity* (Cambridge University Press, 1998).

[132] Ziganshina (n 101) 36.

[133] It is argued that international law's authority is relatively stable when actors are in an 'integrated community': see McDougal and Reisman (n 69) 251.

there is an evident mismatch between the legitimacy of international law and the political realities of the community, the establishment of the normativity of international law would belong to a 'utopian discourse', which, as argued by Puppo, might distort the understanding of the normative role of international law.[134]

Therefore, the normativity of international law is the authority or obligatory forces of international law exerted towards the behaviours of individual countries. It is self-generated by individual countries, relying on their continuous interactions in which the legitimacy of international law is created, modulated and sustained within a community. International law is normative when there is an alignment between the legitimacy of international law and its acceptance by individual countries.

II ANALYTICAL FRAMEWORK: HOW THE NORMATIVITY OF INTERNATIONAL LAW IS ESTABLISHED

The normativity of international law is not only a static concept but also a working analytical framework that can be used to examine whether and how the normativity of international law is established and promoted within a community. The development of the normativity of international law can be analysed from three perspectives: the status of shared understandings, the normative qualities of international law and the reception of individual countries to the normative qualities.

A *Shared Understandings*

Shared understanding, as a core concept of the interactional theory of international law, may emerge gradually through continuous communications and interactions in international communities.[135] The normativity of international law is shaped based on the shared understandings of individual countries regarding their behavioural regularity within a community.[136] Whether international law can exert 'distinctive influences' depends on the status of shared understandings achieved in a community.[137] If there are no shared understandings, international law cannot play a normative role in a community. Therefore, international lawmaking should neither refuse to respond to internationally shared

[134] Alberto Puppo, 'Reasonable Stability vs. Radical Indeterminacy A Disanalogy between Domestic Rule of Law and Humanity-Based International Law' (2016) 30(1/2) revus 82.
[135] Brunnée and Toope, *Legitimacy and Legality* (n 80) 56.
[136] Jutta Brunnée, 'COPing with Consent: Law-Making under Multilateral Environmental Agreements' (2002) 15(1) *Leiden Journal of International Law* 1–52.
[137] Brunnée and Toope, *Legitimacy and Legality* (n 80) chapter 2.

understandings nor push too far beyond the shared understandings that occur in a community.[138] Shared understanding is a broad concept in its content.[139] Under the interactional account, the status of shared understandings can be evaluated from a broad range of issue areas, including the situations of international problems, social norms and the normative qualities of international law.[140]

First, shared understanding comes from the perceptions of individual countries of the general situations regarding certain international problems.[141] As argued by Habermas, the shared understandings of individual countries rely on a 'jointly negotiated understanding of the situation and interpret the relevant facts in the light of intersubjectively recognised validity claims.'[142] The situations understood by individual countries are influenced by many social, technical and political factors.[143] The study of shared understandings should consider various factors such as individual countries' perceptions of the scientific and technical aspects of international problems, their political willingness to resolve the problems, the level of domestic awareness of the problems and so forth. Limited shared understandings regarding the situations of international problems will fundamentally undermine the establishment and development of the normativity of international law.[144]

Second, the normativity of an international law will be largely enhanced if the international law is firmly supported by social norms that are reflected as the background knowledge, cultures, experiences and practices in a community.[145] Social norms reflect the collective expectations of a particular group 'based on a combination of tradition and consensus, and supported by

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[138] Ibid 119–20.

[139] Shared understanding reflects the 'joint perspective' or 'common interpretation of a concept of idea which may have multiple and varied meaning' in a given context: see 'What is Shared Understanding' *IGI Global* (Web Page) <https://www.igi-global.com/dictionary/shared-understanding/26788>.

[140] Brunnée and Toope draw shared understandings from international actors' social and legal understandings: see Brunnée and Toope, *Legitimacy and Legality* (n 80) 65–70.

[141] Situation is regarded by Habermas as 'a segment of lifeworld contexts of relevance' that is 'articulated through goals and plans of action': see Jürgen Habermas, *The Theory of Communicative Action: Volume 1 Reason and The Rationalization of Society*, tr Thomas McCarthy (Beacon Press, 1984) 122.

[142] Jürgen Habermas, *Between Facts and Norms: Contributions to a Discourse Theory of Law and Democracy*, tr Thomas McCarthy (MIT Press, 1998) 27.

[143] Sands and his colleagues argue that these factors such as the extent of scientific consensus about a problem, the level of public concern and the political perceptions as to the allocation of responsibilities influence the progress of international environmental law: see Philippe Sands et al, *Principles of International Environmental Law* (Cambridge University Press, 2018) 6.

[144] As noted by Brunnée and Toope, limited shared understandings restrict the possibilities of lawmaking: see Brunnée and Toope, *Legitimacy and Legality* (n 80) 56.

[145] The social norms may be shared definitions of public good or collective security: see Daniel Bodansky, 'What's in a Concept? Global Public Goods, International Law, and Legitimacy' (2012) 23(3) *European Journal of International Law* 651–68; Maurizio Carbone, 'Supporting or Resisting Global Public Goods? The Policy Dimension of a Contested Concept' (2007) 13(2) *Global Governance* 179–98.

social approbation and sanctions'.[146] The normativity of international law can exist and be sustained only when the actual legal practices of a community are congruent with existing social norms.[147]

Third, the shared understandings of the situations of international problems and social norms alone do not make international law normative. What essentially enable international law to be normative are the normative qualities reflected in both the content of international law and the processes by which international law is made and interpreted.[148] Normative quality, as a reflection of the legitimacy of international law, is central to the obligatory forces of international law.[149] Ziganshina maintains that the qualities of legal norms are of paramount importance for understanding how international law works.[150] Due to the critical role of the normative qualities of international law, the assessment of the normativity of international law should focus on the legal practices in which the criteria of normative qualities are embedded, as will be elaborated in detail in Section B.[151]

In addition, shared understanding is a relational concept and, hence, the normativity of international law can be either weak or strong depending on the layers of shared understandings. As Brunnée and Toope state, there are three layers of shared understandings:

> [T]he basic layer of shared understandings is the minimum required for a thin version of interactional law; the second layer involves the shared understandings of legality, but they can still be largely procedural in nature; the most solid layer of shared understandings will be reflected to a large degree in substantive rules.[152]

When shared understandings are relatively 'thin', the substantive legal rules of international law tend to be elastic and open-textured, and when shared understandings are deeply achieved, the normative role of international law would be ambitious and stronger.[153] In accordance with the interactional theory of international law, the 'thin' layers of shared understandings may be

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[146] Trischa Mann, 'Norms (Social)' *Oxford Reference* (Web Page, 2018) <http://www.oxfordreference.com/view/10.1093/acref/9780190304737.001.0001/acref-9780190304737-e-2687?rskey=l9wgcc&result=4>.

[147] Brunnée and Toope, *Legitimacy and Legality* (n 80) 96–7.

[148] The interactional theory of international law maintains that international law is rooted in social practices that generate shared understandings on the 'right ordering of society'. Ibid (n 80) 32.

[149] Brunnée and Toope contend that the internal qualities of international law are central to its power to promote compliance with international law: see Ibid 54. For constructivists, the operation of norms in international governance relies on the qualities of norms: see Wiener (n 107) 47–69.

[150] Ziganshina (n 101) 37.

[151] Brunnée and Toope believe that when a norm meets Fuller's eight criteria, it will generate a sense of commitment: see Brunnée and Toope, *Legitimacy and Legality* (n 80) 7.

[152] Ibid 69.

[153] Ibid 56, 119–20.

achieved without many hurdles; however, the 'deep' layers of shared understandings are the 'hard work' of international law, relying on the 'gradual building up' of individual countries' shared understandings within a community.[154] With the transformation of individual countries' perceptions of the normative qualities of international law, the normativity of international law may be established or promoted over time, as will be explained in Section C.

B *Normative Qualities of International Law*

The normative qualities of international law are critical for the development of the normative role of international law; however, the scope of normative qualities is still contested among various normative legal accounts. Legalisation theory maintains precision as one of the formal features of international law.[155] Yet, fairness, as a substantive element of international law, is excluded from its accounts of the normative qualities of international law. Ziganshina divides the normative qualities of international law into two clusters: 'norm properties' (stringency and determinacy) and 'process properties' (inclusiveness, transparency, discursiveness and coherence),[156] and Brunnée and Toope use Fuller's 'criteria of legality' to evaluate the normativity of international law.[157] However, they do not take into account the fairness of international law and many of Fuller's 'criteria of legality' are difficult to be applied in international practices.[158] For instance, the seventh and eighth 'criteria of legality' (law's requirements over citizens must remain relatively constant, and there should be alignment between what law declares and how officials enforce the law)[159] cannot be used to assess the status of the normativity of international law because international actors are mainly state actors and the officials that enforce international law do not exist in international communities. Legitimacy theory examines the legitimacy of international law with the indicators of fairness, determinacy, symbolic validation, coherence and adherence,[160] which adds fairness or justice

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[154] The interactional theory of international law presupposes only 'thin' shared understandings but allows for deepening shared understandings through continuous interactions. Ibid 81–2, 119–20.

[155] Abbott et al (n 73) 401–2.

[156] Ziganshina (n 101) 37.

[157] Fuller's eight 'criteria of legality' include generality, promulgation, non-retroactivity, clarity, non-contradiction, not asking the impossible, constancy and congruence between rules and official action: see Fuller (n 17) 39, 46–90. As argued by Brunnée and Toope, if a norm or rule does not meet these criteria, it is not law: see Brunnée and Toope, *Legitimacy and Legality* (n 80) 54.

[158] Krivenko views that many of Fuller's 'criteria of legality' are difficult to be applied 'within the framework of international law as the notion of *opinion juris'*: see Ey Krivenko, 'Book Review: Legitimacy and Legality in International Law. An Interactional Account' (2012) 23(3) *European Journal of International Law* 894.

[159] Fuller (n 17) 46–90.

[160] Franck concludes the four qualities of the legitimacy of international law as determinacy, symbolic validation, coherence and adherence: see Franck, *The Power of Legitimacy among Nations* (n 14) 49. In his other book, Franck refers to the legitimacy of international law as procedural fairness and right process: see Thomas M Franck,

to the normative qualities of international law.[161] However, some important aspects of the normative qualities of international law, such as stringency and transparency, are neglected by legitimacy theory.

This section, by bringing together the relevant accounts in relation to the normative qualities of international law, presents a framework of six interconnected normative qualities, including fairness, determinacy, stringency, transparency, inclusiveness and coherence.[162] The framework of the six normative qualities is drawn to attempt to cover all possible factors that influence the normative characteristics of international law. Among these six normative qualities, the quality of fairness underscores the substantive allocation of international responsibilities in the making and interpretation of international law, significantly reflecting the moral legitimacy and social justice of international law, while other normative qualities embody the procedural integrity and justice of international law.[163] The following sub-sections will discuss these in turn.

1 *Fairness*

The fairness of international law generally deals with the fair allocation of responsibilities in resolving collectively shared international problems among individual countries. When an international legal norm is perceived by individual countries as fair, the legal norm is more likely to be voluntarily complied with,[164] and is less likely to be manipulated by powerful countries.[165] Therefore, fairness plays an important role in promoting the normativity of international law in a decentralised international world.

The fairness of international law is a broad concept.[166] According to Franck's legitimacy theory, the fairness of international law has two aspects: procedural fairness and distributive justice.[167]

Fairness in International Law and Institutions (Oxford University Press, 1995) 7, 22–6 ('*Fairness in International Law and Institutions'*).

[161] Franck maintains the relevance of justice in the international legal system: see Thomas M Franck, 'Is Justice Relevant to the International Legal System?' (1989) 64 *Notre Dame Law Review* 945.

[162] As viewed by Ziganshina, the normative qualities are 'partly reinforcing and building on each other': see Ziganshina (n 101) 54.

[163] Fairness raises significant moral concerns: see Craig L Carr, *On Fairness* (Routledge, 2000) 1.

[164] The fairness of international law will 'command respect and pull towards voluntary compliance': see Franck, *Fairness in International Law and Institutions* (n 160) 13.

[165] Less powerful developing countries are more concerned with fairness than developed countries: seeVegard Tørstad and Håkon Sælen, 'Fairness in the Climate Negotiations: What Explains Variation in Parties' Expressed Conceptions?' (2018) 18(5) *Climate Policy* 649.

[166] The concept of fairness is hard to be defined because fairness is a deeply contested concept: see Friedrich Soltau, *Fairness in International Climate Change Law and Policy* (Cambridge University Press, 2009) 133.

[167] Fairness is closely related to the principles of equity and justice: see Franck, *Fairness in International Law and Institutions* (n 160) 7–9; Zeray Yihdego and Alistair Rieu-Clarke, 'An Exploration of Fairness in International Law Through the Blue Nile and GERD' (2016) 41(4) *Water International* 528.

Procedural fairness is concerned with 'proper process' through which international law is made, interpreted and applied to prevent 'corrupt, arbitrary, or idiosyncratic decision-making or decision-executing' from happening.[168] The procedural dimension of fairness requires wide participation, high transparency and visible compliance in the making and implementation of international law.[169] Distributive justice is the 'consequential effects' of the substantive allocational rules of international law.[170] To reflect or promote distributive justice in the allocation of responsibilities, there are a variety of principles that have been suggested.[171] The egalitarianism principle denotes that every person should have an equal share of benefits and burden, whereas the differentiation principle advocates equity between different actors for the sake of the least advanced.[172] Within the spectrum between strict egalitarianism and strict differentiation, various factors, such as historical responsibility, population, capability, gender or other material and ethical factors, have also been taken into account to give special considerations to disadvantaged members of a community.[173] In particular, the concept of corrective justice serves to correct the previous distorted distribution of responsibilities in legal systems and pays special attention to the conditions of the least advantaged members of a community.[174] The allocation of responsibilities based on corrective justice allows de facto inequality to maintain distributive justice in global governance.[175]

In addition, the fairness of international law, as a rational concept,[176] may be interpreted by different countries to serve their domestic preferences and self-interests in terms of responsibility allocation.[177] To establish or sustain a shared understanding of the fairness of international law within a community, a high degree of political consensus of responsibility

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168 Franck, *Fairness in International Law and Institutions* (n 160) 7–8.
169 Ibid 8.
170 Ibid.
171 For instance, Franck discusses the principles of no-trumping and max-min. Ibid 16–20.
172 'Distributive Justice', *Stanford Encyclopedia of Philosophy* (Web Page, 26 September 2017) <https://plato.stanford.edu/entries/justice-distributive/#Strict>.
173 Ibid.
174 Elbert L Robertson, 'A Corrective Justice Theory of Antitrust Regulation' (2000) 49(3) *Catholic University Law Review* 744. Rawls proposes two principles of justice: distributive justice and corrective justice: see John Rawls, *A Theory of Justice* (Oxford University Press, 1999) 52–72. Franck proposes three approaches to equitable allocation: corrective equity, broadly conceived equity and common heritage equity: see Franck, *Fairness in International Law and Institutions* (n 160) 76–9.
175 Highlighting corrective justice is helpful to 'increase participation in and the effectiveness of international agreements': see Christina Voigt and Felipe Ferreira, '"Dynamic Differentiation": The Principles of CBDR-RC, Progression and Highest Possible Ambition in the Paris Agreement' (2016) 5(2) *Transnational Environmental Law* 286.
176 Franck, *Fairness in International Law and Institutions* (n 160) 10.
177 Tørstad and Sælen (n 165) 645–6.

allocation among individual countries is important.[178] Therefore, the study of the fairness of international law will be fruitful if great attention is paid to the continuous interactions of individual countries regarding their perceptions of the fairness of responsibility allocation.

2 *Determinacy*

Determinacy refers to the degree of clarity, precision or settlement of international law.[179] According to legitimacy theory, the determinacy of international law is reflected either in its textual determinacy, through which the texts of international agreements can manifest precise meanings, or as 'a legitimate clarifying process' if there are no clear rules in treaty texts.[180] As a normative quality, determinacy enables individual countries to find clear or predictable answers on how they ought to behave.[181] If an international agreement has 'ascertainable normative content' and defined 'outer boundary of the rule's elasticity',[182] it will largely reduce the opportunities of misinterpretation or inadvertence from those individual countries that are predisposed to violate international law.[183] In contrast, if an international agreement has discretionary, qualifying or contextual texts, including 'as appropriate' or 'if necessary', it may expand the space for self-serving interpretation or 'creative evasion',[184] and therefore, exerts limited normative forces on international problem-solving.[185]

However, indeterminate or open-textured rules are not uncommon when designing the normative structure of international agreements.[186] As pointed out by Franck, 'indeterminacy is inherent in all rule-creating discourse'.[187] In many international agreements, vague and flexible treaty texts are deliberately adopted to ensure the wide participation of individual countries,[188] or to maintain the existence of a general cooperation framework if there are no

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[178] Duncan French, 'Global Justice and the (Ir)relevance of Indeterminacy' (2009) 8(3) *Chinese Journal of International Law* 595.

[179] Ziganshina (n 101) 38; Terence C Halliday and Gregory Shaffer, *Transnational Legal Orders* (Cambridge University Press, 2015).

[180] Franck, *The Power of Legitimacy among Nations* (n 14) 66.

[181] Prescriptive law can establish precisely how agents ought to behave: see Helen Beebee, 'The Non-Governing Conception of Laws of Nature' (2000) 61(3) *Philosophy and Phenomenological Research* 581.

[182] Franck, *The Power of Legitimacy among Nations* (n 14) 57; Abbott et al (n 73) 412–13.

[183] It is argued that a determinate international agreement will reduce the opportunities of 'self-serving exculpatory definitions of the rule': see Franck, *The Power of Legitimacy among Nations* (n 14) 57.

[184] Franck, *Fairness in International Law and Institutions* (n 160) 33.

[185] Gabrielle Kaufmann-Kohler, 'Soft Law in International Arbitration: Codification and Normativity' (2010) 1(2) *Journal of International Dispute Settlement* 2.

[186] For instance, the Convention on the Law of the Non-Navigational Uses of International Watercourses is criticised for being too vague: see Peter Beaumont, 'Water Institutions in the Middle East' in Chennat Gopalakrishnan, Asit K Biswas and Cecilia Tortajada (eds), *Water Institutions: Policies, Performance, and Prospects* (Springer, 2005) 131–53.

[187] Franck, *Fairness in International Law and Institutions* (n 160) 15.

[188] French notes that imprecision is sometimes 'not purely conceptually inherent but also very much intentional, to reflect politically divergent views': see French (n 178) 595.

solid shared understandings of how to lay out precise rules and procedures.[189] Thus, the determinacy of an international agreement is subject to a trade-off between the 'depth' of its determinacy and the 'breadth' of its inclusiveness, and behind this trade-off is the consideration of political necessities within a community.[190] The examination of the determinacy of international law will be fruitful if closer attention is paid to the development of political and factual contexts of the community.

3 *Stringency*

The stringency of international law refers to the degrees of normative forces or 'control intention' of a legal norm.[191] As argued by Rajamani, if an international agreement uses imperative verbs, such as 'shall, must and require', it generates stringent normative forces; if an international agreement uses subjunctive verbs, such as 'will or may', it only expresses a promise, wish or expectation, and exerts limited normative forces; and if an international agreement uses terms such as 'should, strive or encourage', it is recommendatory at large.[192]

Stringency largely contributes to the credibility and enforceability of international law.[193] Yet, the stringency of international agreements may affect the willingness of individual countries to participate in international negotiations due to the multiplicity of their concerns for state sovereignty and national circumstances.[194] Without enough participation from a wide range of individual countries, the validity and effectiveness of international law will be significantly undermined. Thus, similar to the determinacy of international law, the stringency of international law should be considered in a broad context, paying adequate attention to the compromise between a high degree of stringency and wide participation of individual countries in international lawmaking and implementation.

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[189] An indeterminate legal rule enables individual countries to enter a vague and overall regulation framework: see Franck, *The Power of Legitimacy among Nations* (n 14) 56.
[190] Hall and Persson (n 74) 546.
[191] Ziganshina (n 101) 41.
[192] Lavanya Rajamani, 'The 2015 Paris Agreement: Interplay between Hard, Soft and Non-Obligations' (2016) 28(2) *Journal of Environmental Law* 343 ('The 2015 Paris Agreement').
[193] Gregory C Shaffer and Mark A Pollack, 'Hard vs. Soft Law: Alternatives, Complements, and Antagonists in International Governance' (2010) 94(09-23) *Minnesota Law Review* 718; Kenneth W Abbott and Duncan Snidal, 'Hard and Soft Law in International Governance' (2000) 54(3) *International Organization* 432.
[194] On the disadvantages of hard law, see Abbott and Snidal (n 193) 421–56.

4 *Transparency*

Transparency, as an attribute of good governance, deals with the visibility and openness of the behaviours of individuals or groups.[195] As viewed by Ziganshina, transparency can be both textual transparency and substantive transparency.[196] Textual transparency is regarding the 'promulgation and clarity of what the law requires in the texts', whereas substantive transparency is concerned with the 'openness, accessibility and clarity' of international law making and the visible supervisory mechanisms of the implementation of international law.[197] The transparency of international law provides individual countries with accessible information regarding the 'rules, procedures and settings of international legal interactions', and significantly influences the attitudes of individual countries towards the normative role of international law.[198]

Transparency helps to generate greater clarity concerning the normative contents of international law.[199] However, transparency is a matter of degree, relying on the status of shared understandings of individual countries, and a high degree of transparency can only be achieved when 'all actors have the same information, and when they do in fact understand what is at stake and what others are concerned with'.[200] In this light, promoting the transparency of international law requires the consideration of the domestic conditions of individual countries (such as their capability of collecting information and their political willingness to share information) and the international context (such as peer pressure), and the study of the transparency of international law should take into account the political and factual contexts in which individual countries interact with each other.

5 *Inclusiveness*

The inclusiveness of international law deals with 'what actors are involved in international legal interactions, in what capacity, and how they relate to and connect with each other'.[201]

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[195] Wang Tian and Gao Xiang, 'Reflection and Operationalization of the Common but Differentiated Responsibilities and Respective Capabilities Principle in the Transparency Framework under the International Climate Change Regime' (2018) 9(4) *Advances in Climate Change Research* 255.
[196] Ziganshina (n 101) 47.
[197] Ibid.
[198] Ibid.
[199] Transparency has become a legitimate indicator for evaluating the normative features of contemporary international law: see Alan Boyle and Kasey McCall-Smith, 'Transparency in International Law-Making' in Andrea Bianchi and Anne Peters, *Transparency in International Law* (Cambridge University Press, 2013) 435; Andrea Bianchi, 'On Power and Illusion: The Concept of Transparency in International Law' in Andrea Bianchi and Anne Peters, *Transparency in International Law* (Cambridge University Press, 2013) 6.
[200] Jutta Brunnée and Ellen Hey, 'Transparency and International Environmental Institutions' in Andrea Bianchi and Anne Peters, *Transparency in International Law* (Cambridge University Press, 2013) 29.
[201] Ziganshina (n 101) 44.

Promoting the inclusiveness of international law requires open-ended participation of the widest possible international actors in international lawmaking, including both formal actors (such as state actors) and informal actors (such as individuals, epistemic communities or non-governmental organisations).[202] In addition, to promote the inclusiveness of international law, international actors should make meaningful contributions to the normative construction of international law.[203] Thus, all participants of international negotiations should work on the reflection of their interests or concerns in the outcomes of negotiations, and prepare to compromise their position or interests for the good of addressing collectively shared international problems.

However, inclusiveness tends to be achieved at the cost of the precision, stringency and transparency of international law. An international agreement with a high degree of precision, stringency and transparency may restrict individual countries from actively accepting the agreement because individual countries tend to enter into an agreement that contains 'softly worded or highly contingent' commitments.[204] It has been noted that ambiguity is a strength of an agreement that aims to be widely accepted by all countries.[205] Although negotiation strategies, such as withdrawal clauses, minimum requirements of negotiation participants or low thresholds for entering into force, may technically broaden participation or promote a quick adoption of international agreements, these strategies are likely to cause more 'coordination failures' or 'increase veto power for non-signatories'.[206] In the face of conflicted domestic preferences and political barriers among individual countries, negotiation strategy is not a reliable or determinant factor for the effectiveness of international agreements and the

[202] As argued by Reisman, the participation of international lawmaking should include not only 'formal law-making powers' but also informal actors: see W Michael Reisman, 'The View from the New Haven School of International Law' (1992) 86 *Proceeding of the Annual Meeting (American Society of International Law)* 122. It is, however, argued that abolishing the dichotomy between formal and informal types of international lawmaking would undermine the stability and predictability of international relations: see Eva Kassoti, 'Beyond State Consent? International Legal Scholarship and the Challenge of Informal International Law-Making' (2016) 63(2) *Netherland International Law Review* 104.

[203] On the role of international actors in norm evolution, development, interpretation and implementation, see Ulrich Fastenrath, 'A Political Theory of Law: Escaping the Aporia of the Debate on the Validity of Legal Argument in Public International Law' in Ulrich Fastenrath et al (eds), *From Bilateralism to Community Interest: Essays in Honour of Bruno Simma* (Oxford University Press, 2011) 69.

[204] Jake Werksman, 'Legal Symmetry and Legal Differentiation under a Future Deal on Climate Change' (2010) 10(6) *Climate Policy* 674.

[205] French (n 178) 596.

[206] Martin Kesternich, 'Minimum Participation Rules in International Environmental Agreements: Empirical Evidence from a Survey among Delegates in International Climate Negotiations' (2016) 48(12) *Applied Economics* 1048.

credibility of the commitments of individual countries,[207] and therefore, a comprehensive examination of the inclusiveness of international law should pay more attention to how different normative qualities of international law are balanced or traded off based on the political and factual contexts of a community.

6 *Coherence*

Coherence refers to the 'connectedness' of the elements of international law 'between different legal regimes, between national and international domains, or between doctrine, knowledge and practice'.[208] The coherence of international law can be understood from the horizontal and vertical perspectives. Horizontal coherence applies to the interactions of different departments of international law at the same levels,[209] such as the interactions of international trade law and international environmental law,[210] whereas vertical coherence applies to the interactions of international and domestic legal systems and processes, such as the compliant behaviours of individual countries at the national level.[211]

Contemporary international law has achieved significant diversification and expansion since the Second World War,[212] but it is still fragmented.[213] The fragmentation of international law has invoked normative conflicts among different sub-sections of international law, which undermines the effectiveness of international law in solving international problems.[214] Global efforts to enhance the coherence of international law can play an important role in integrating the scattered sub-systems of international law into a coordinated mechanism, thereby promoting the normativity of international law.[215]

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[207] John S Odell et al, 'Negotiating Agreements in International Relations' in Jane Mansbridge et al, *Negotiating Agreement in Politics Report of the Task Force on Negotiating Agreement in Politics* (American Political Science Association, December 2013) table 7.1.

[208] Ziganshina (n 101) 51.

[209] Ibid 52.

[210] On the horizontal coherence of the World Trade Organization (WTO) law, international environmental law and general international law, see generally Bradly J Condon, 'Trade, Environment and Sovereignty: Developing Coherence between WTO Law, International Environmental Law and General International Law' (PhD Thesis, Bond University, 2004).

[211] Ziganshina (n 101) 53–4.

[212] On the evolution of international law, see Milena Sterio, 'The Evolution of International Law' (2008) 31(2) *Boston College International and Comparative Law Review* 213–56.

[213] International law is far from a coherent legal system: see Mads Andenas et al, *General Principles and the Coherence of International Law* (BRILL, 2019) 9. The International Law Commission adopted a report to explain this trend in 2006: see Martti Koskenniemi, *Fragmentation of International Law: Difficulties arising from the Diversification and Expansion of International Law* (Report No A/CN.4/L.682, International Law Commission, 13 April 2006) ('*Fragmentation of International Law'*).

[214] Normative conflict refers to a situation where two rules or principles suggest different ways of resolving a problem: see Koskenniemi, *Fragmentation of International Law* (n 213).

[215] Coherence can promote the 'compliance pull' of international law: see Franck, *The Power of Legitimacy among Nations* (n 14) 175.

Legal reasoning and interpretation techniques, such as the principles of *lex specialis, lex prior* and *lex superior*, may help to resolve normative conflicts or justify a choice of applicable standards.[216] However, normative conflicts are not solely caused by technical mistakes.[217] If there are no strong political consensuses among individual countries on how to resolve international problems, technical reforms will be ineffective for addressing the conflicts of norms.[218] Because the incoherence of international law mainly arises from political reasons, the study of the coherence of international law should pay more attention to the political interactions of individual countries.[219]

In all, this section has identified and illustrated the core meaning and scope of the six normative qualities of international law. Although by no means exhaustive, the framework of these six normative qualities provides a broad picture of the normative characteristics of international law and clearly states why international law can be normative towards individual countries. However, the legal practices in a community may not always meet the normative qualities of international law owing to the complex circumstances of the community and the diversity of individual countries' perspectives. In some instances, a trade-off among these normative qualities based on the political contexts of a community is necessary. The next section will study the interactions of individual countries in shaping their shared understandings of the normative qualities of international law.

C *Reception of Individual Countries to the Normative Qualities of International Law*

As highlighted above, the reception of individual countries to the normative qualities of international law is of significance for the investigation of how the normativity of international law is generated and developed within a community.[220] The normative role of international law is continuously constructed through the 'hard work' of individual countries.[221] Individual

[216] *lex specialis* suggests that if a matter is regulated by a general rule and a more specific rule, then the latter should derogate the former; *lex posterior* refers to a situation that a later law overrides a prior law and *lex superior* refers to a hierarchy of rules that some rules supersede others: see generally Koskenniemi, *Fragmentation of International Law* (n 213).

[217] Hence, normative conflicts could not be solely resolved by legal reasoning or interpretation. Ibid 20.

[218] As Borgen stated, 'the conflict must result from the wish of States to negotiate issues of apparent conflict between themselves': see Christopher J Borgen, 'Resolving Treaty Conflicts' (2005) 37 *George Washington International Law Review* 605–6.

[219] Law and politics are intertwined to influence the behaviours of international actors: see Abbott et al (n 73) 419.

[220] See above Part I of this chapter. Hathaway views that international and domestic 'collateral consequences' influence state behaviours: see Oona A Hathaway, 'Between Power and Principle: An Integrated Theory of International Law' (2005) 72(2) *University of Chicago Law Review* 473, 503.

[221] Brunnée and Toope view that 'international law is made, upheld, and developed through the continuous, hard work of the participants' of a regime: see Brunnée and Toope, *Legitimacy and Legality* (n 80) 219.

countries are the facilitators, makers, interpreters and enforcers of international law, and therefore the domestic context of individual countries should be fully considered in the discussion of the normativity of international law. The perceptions and practices of individual countries are fundamentally influenced by various dynamic factors, including, but not limited to, international identity, power status and national interests of individual countries. The evolution of these factors may profoundly 'affect the structure and process of international law',[222] fostering or restricting the normative role of international law in a community. This section discusses how these factors influence the perceptions and practices of individual countries regarding the normative role of international law.

1 *International Identity*

Identity is the status and role of individual countries in a defined community.[223] In international communications, an individual country posits itself into 'the self and the other' groups based on its difference and similarity with other countries.[224] Identity is not pre-given but is socially constructed.[225] In the view of Wenger, the formation of identity is a dual process, comprising 'identification' and 'negotiability'.[226] This suggests that identity is not only self-declared but also observed by other countries in a community.[227] The identity of individual countries involves two configuration processes: how a country identifies itself and how the country reshapes or redetermines itself among its multiple identities perceived by other countries.[228] The identity of individual countries may be shaped or transformed through the continuous processes of self-identification and external identification.

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[222] Schachter emphasises the connection between international law and the socio-historical dimensions of the legal systems individual countries: see Oscar Schachter, 'International Law in Theory and Practice: General Course in Public International Law' (1982) 178 *Recueil des cours* 22–3.

[223] Bayram (n 98) 93.

[224] Qin Yaqing, 'International Factors and China's External Behaviour: Power, Interdependence, and Institutions' in Pauline Kerr, Stuart Harris and Qin Yaqing (eds), *China's New Diplomacy: Tactical or Fundamental Change?* (Palgrave Macmillan, 2016) 48.

[225] From the constructivist perspective, the identity of individual countries is a relationship that is not exogenously pre-given by nature but socially constructed via the interactions of individual countries in a community: see Feng (n 61) 78; Alexander Wendt, 'Collective Identity Formation and the International State' (1994) 88(2) *American Political Science Review* 385–6, 394; Alexander Wendt, *Social Theory of International Politics* (Cambridge University Press, 1999) 1; Brunnée and Toope, 'International Law and Constructivism' (n 71) 27.

[226] Wenger notes that 'identification' refers to 'building identities through an investment of the self', while 'negotiability' points towards the process that actors keep or develop their self-identification: see Wenger (n 131) 188, 210.

[227] Identity is a 'subjective and objective discourse of the self': see Sanna Kopra, 'Great Power Management and China's Responsibility in International Climate Politics' (2016) 4(1) *Journal of China and International Relations* 27.

[228] Suzuki argues that the identity of a country observed or recognised by others is more important for its international communication and interactions: see Shogo Suzuki, 'Journey to the West: China Debates its "Great Power" Identity' (2014) 42(3) *Millennium* 632–50.

International law is infused with the question of the identity of individual countries.[229] Individual countries appear to accept or reject the normativity of international law based on their identity in a community. Qin categorises the identifications of individual countries into positive, zero or negative identifications.[230] Positive identification leads to a 'we' feeling or a collective identity of individual countries in a community.[231] If an individual country identifies itself as a part of the collective identity of a community, it may internalise or encode the normative qualities of international law into its own identity and follow the normative requirements of international law in its behaviours.[232] By integrating itself into a collective identity, an individual country may strengthen its connections with other members of the community and upgrade its 'understandings of legitimate duties, corresponding rights, and authoritative institutions'.[233] During this process, the sense of the normativity of international law may be nurtured or sustained in the internal point of view of individual countries.

However, the collective identity of individual countries and the solidarity of a community cannot be formed or sustained without difficulty in a plural world where the national interests or domestic preferences of individual countries are often divergent or even contentious.[234] In the plural world formed by self-interested actors, it is argued that the number of members of a community tends to influence the degree of connections among the members of the community: the more inclusiveness of actors within a community, the less solidarity the community will have, and the broader the scope of interactive agendas or issues, the less likely the community will gain a 'thick' consensus on the agendas or issues.[235] Thus, the wide inclusiveness of participants or negotiation issues in international lawmaking might increase the likelihood of conflicts of interests or position among various groups of individual countries. The conflicts of position will consequently restrict different groups of countries from concluding an international agreement with a high degree of determinacy, stringency and transparency. Therefore, the perceptions of individual countries of the normativity of international law are

[229] Hirsch (n 111) 91.
[230] Qin (n 224) 48.
[231] Qin views that 'the more an actor is positively identified with international society, the more effectively international factors influence the actor in a constructive way'. Ibid 48.
[232] According to the transnational legal process theory, the normative contents of international law can be internalised into individual countries' domestic sphere through social, political and legal processes: see Koh, 'Why Do Nations Obey International Law?' (n 76) 2656–7; Koh, '1998 Frankel Lecture' (n 76) 642–3.
[233] Bayram (n 98) 6, 104.
[234] See generally Goldsmith and Posner (n 19).
[235] As correctly stated by Cai, 'the expansion of community perhaps is achieved at the expense of derogation of solidarity': see Cai (n 45) 15.

primarily shaped by their international identity; however, the formation or maintenance of the collective identity within a community has never been an easy task.

2 *Power Status*

Power, as noted by Nye, is about the 'ability to affect others to obtain the outcomes',[236] and includes both hard power and soft power.[237] Hard power is achieved through inducements or threats, such as military intervention, coercive diplomacy and economic sanctions,[238] whereas soft power is achieved through persuasion that is 'associated with intangible power resources such as culture, ideology, and institutions'.[239]

Power status influences the perceptions and practices of individual countries regarding the normative role of international law.[240] Powerful countries are usually in a good position to 'write, resist, and enforce rules as they wish' and have greater leverage to influence the making and implementation of international law.[241] If powerful countries attempt to institutionalise their self-interests by supporting a strong normative role of international law, they are more likely to reach an international agreement with a high degree of precision, stringency and transparency.[242] If an international agreement contradicts with their own interests, powerful countries may deliberately weaken the determinacy, stringency and transparency of international law, and thereby limit the normative forces of international law.[243] Under both circumstances, powerful countries have more advantages in making or interpreting the normative contents of international law to serve their own policy preferences, while leaving less powerful countries in an unfair and disadvantaged position.[244]

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[236] Joseph S Nye, 'Public Diplomacy and Soft Power' (2008) 616(1) *The Annals of the American Academy of Political and Social Science* 94.

[237] As viewed by Nye, the power of a state encompasses both hard power and soft power: see Joseph S Nye, *Understanding International Conflicts: An Introduction to Theory and History* (Pearson, 2009) 61–3 ('*Understanding International Conflicts*').

[238] E J Wilson, 'Hard Power, Soft Power, Smart Power' (2008) (616) *ANNALS of the American Academy of Political and Social Sciences* 114.

[239] Nye, *Understanding International Conflicts* (n 237).

[240] Gerry J Simpson, *Great Powers and Outlaw States: Unequal Sovereigns in the International Legal Order* (Cambridge University Press, 2004).

[241] Ian Hurd, 'The International Rule of Law and the Domestic Analogy' (2015) 4(3) *Global Constitutionalism* 390 ('International Rule of Law and Domestic Analogy').

[242] Miles Kahler, 'Conclusion: The Causes and Consequences of Legalization' (2000) 54(3) *International Organization* 665–6.

[243] Realists in international relations argue that international law is only 'paper tigers' when confronting powerful states: see Hans J Morgenthau, *Politics among Nations: The Struggle for Power and Peace* (Alfred A Knopf, 1948); Michael Byers, *Custom, Power and the Power of Rules* (Cambridge University Press, 1999); Edward Hallett Carr, *The Twenty Years Crisis, 1919–1939: An Introduction to the Study of International Relations* (Harper & Row, 1964); Morgenthau, 'Positivism, Functionalism, and International Law' (n 108) 260.

[244] A crucial concern for the less powerful states is the regular abuses and defiance of international law: see Cai (n 45) 23.

However, less powerful countries may, individually or collectively, voice their legal arguments and defend their national interests by promoting the inclusiveness of international law or setting out universal normative criteria of international law applicable to all countries.[245] Active and wide participation of less powerful countries and their like-minded partners may restrict powerful countries from unilaterally manipulating the processes of international lawmaking or unscrupulously determining the level of determinacy of international law.[246] Thus, the influences of powerful countries on the normative role of international law are not static or absolute, but are in a dynamic process. Although powerful countries might bypass the normative requirements of international law, they still need to use international law as a legal justification to increase the legitimacy of their decision-making.[247] Put simply, power status significantly influences the attitudes of individual countries towards the normativity of international law. Powerful countries utilise their power status to influence the making and implementation of international law, whereas they may also actively contribute to the normative construction of international law to justify their behaviours.

3 *National Interests*

Self-interest can explain the rationales behind the interactions of individual countries with international law.[248] In the view of rationalists, the attitudes of individual countries towards the normativity of international law rely on whether the normative requirements of international law are consistent with their national interests.[249] If a legal rule is compatible with the national interests of individual countries, they tend to fix or stabilise their interests through formal, determinate and stringent legal instruments, whereas if a legal rule conflicts with the interests of individual countries, they appear to deliberately make a 'grey zone' using vague and imprecise language and procedural arrangements in international agreements.[250]

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[245] Brunnée and Toope argue that powerful countries' claims 'have to be measured against the eight criteria of legality', and 'fit within shared understandings generated through inclusive participation of all social actors': see Brunnée and Toope, *Legitimacy and Legality* (n 80) 85.

[246] Cai (n 45) 25.

[247] Hurd argues that individual countries' attitudes towards international law rely on the degree that they 'get access to their legitimating power': see Hurd, 'International Rule of Law and Domestic Analogy' (n 241) 393. As noted by Steinberg and Zasloff, power is not material, but ideational, in the social milieu: see Steinberg and Zasloff (n 19) 82.

[248] Goldsmith and Posner view that the 'behavioural regularities' of individual countries arise from the maximisation of their self-interests: see Goldsmith and Posner (n 19) 42. Bodansky argues that an actor might believe that a norm serves its long-term interests by resolving a collective action problem, preventing from the collapse of norm, or promoting order and predictability: see Bodansky, *Art and Craft of International Environmental Law* (n 90) 90.

[249] Hurd, 'Legitimacy and Authority in International Politics' (n 125) 381.

[250] Hall and Persson (n 74) 546.

National interest is important to individual countries, but it is socially constructed and defined.[251] How individual countries define their national interests depends on the interactions of various dynamic factors, such as international identity, power status, knowledge, social values or the domestic political processes of individual countries.[252] International identity, inter alia, configures the perceptions of individual countries of their national interests and policy preferences.[253] As argued by Katzenstein, individual countries 'often cannot decide what their interests are until they know what they are representing'.[254] Fitting into a collective identity of a community may fundamentally drive individual countries to redefine their national interests from narrowly defined self-interests towards the collective interests of the entire community, and their perceptions of the normativity of international law may also be enhanced.

In summary, international law plays a normative role towards individual countries through its normative qualities. However, the normative qualities of international law in a decentralised and fragmented international world are not naturally given, but are largely dependent on how individual countries observe them based on the political realities within a community.[255] As argued by Koskenniemi, international law is not independent from its political realities.[256] Three major dynamic factors, including international identity, power status and national interests, significantly influence individual countries' understanding of the normative qualities of international law. With the transformation of their international identity, the enhancement of their power status, and the redefinition of their national interests, individual countries may reshape their perceptions and practices of the normative qualities of international law. The development of the perceptions and practices of individual countries regarding the normative qualities of international law based on these factors provides an interactive analytical framework for understanding how individual countries accept or promote the normative role of international law in their domestic sphere.

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[251] The interactions of various factors may construct individual countries' perceptions of their national interests: see Zhu Liqun, 'The Domestic Sources of China's Foreign Policy and Diplomacy' in Pauline Kerr, Stuart Harris and Qin Yaqing (eds), *China's New Diplomacy: Tactical or Fundamental Change?* (Palgrave Macmillan, 2016) 110. See also Brunnée and Toope, *Legitimacy and Legality* (n 80) 37.

[252] Bodansky, *Art and Craft of International Environmental Law* (n 90) 9.

[253] Feng (n 61) 78.

[254] Peter J Katzenstein, *The Culture of National Security: Norms and Identity in World Politics* (Columbia University Press, 1996) 60.

[255] Hathaway (n 220) 469–536.

[256] Martti Koskenniemi, 'International Law in Europe: Between Tradition and Renewal' (2005) 16(1) *European Journal of International Law* 113–24.

III A BRIEF SUMMARY

This chapter has laid the conceptual foundation and analytical framework for this thesis by addressing two rather broad and generic questions: what the normativity of international law is and how it is established and developed in international communities. The elaboration of the conceptual foundation and analytical framework is an essential preliminary to a more specific inquiry into the normative role of international climate change law and into China's interactions with the normativity of international climate change law.

To elucidate the conceptual foundation of the normativity of international law, this chapter defines the normativity of international law as the authority or obligatory forces of international law exerted towards individual countries. It proposes the interactional account to elaborate the normativity of international law from three perspectives: (a) the normativity of international law is self-generated based on the internal understandings of individual countries; (b) international law should be legitimate and (c) the normativity of international law is generated and developed when there is an alignment between the legitimacy of international law and its acceptance by individual countries.

By following the interactional account, this chapter maintains that the normativity of international law should be evaluated from the status of shared understandings, the normative qualities of international law and the reception by individual countries of the normative qualities. First, shared understandings can be assessed by focusing on the situations regarding international problems, social norms and the normative qualities of international law. If there are no shared understandings, it is difficult for international law to play a normative role in a community. Second, the normative qualities of international law reflect the legitimacy of international law and manifest why international law is normative. Six interrelated normative qualities, including fairness, determinacy, stringency, inclusiveness, transparency and coherence, were identified. Furthermore, the normative qualities can be translated into the normative forces of international law only when they are observed and practised by individual countries under the influences of various dynamic factors. International identity, power status and national interests are the major factors that influence the perceptions and practices of individual countries regarding the normative qualities of international law.

This chapter has provided an analytical framework for the evaluation of how an individual country accepts or promotes the normative role of international law based on its domestic contexts. In what follows, this analytical framework will be employed to examine the

development of the normative role of international climate change law and to explore China's perceptions and practices of the normative role of international climate change law.

CHAPTER 3 THE NORMATIVITY OF INTERNATIONAL CLIMATE CHANGE LAW

Having established the basic parameters of the analytical framework in Chapter 2, this chapter employs this analytical framework to study the normativity of international law in the global climate change governance. The normativity of international climate change law is mainly concerned with what the normative contents of international climate change law are, and whether and in what ways it exerts normative forces on individual countries. By following the analytical framework proposed in Chapter 2, this chapter aims to make clear the development of shared understandings in the UN climate regime regarding climate change problems and the normative qualities of international climate change law. To this end, this chapter adopts a doctrinal analytical method to investigate the texts of international agreements and decisions of COPs concluded in various phases of international climate change negotiations. The investigation, inter alia, focuses on the normative qualities of the Paris Agreement and its Rulebook, which represent the latest development of international climate change law.

I THE DEVELOPMENT OF SHARED UNDERSTANDINGS IN THE UN CLIMATE REGIME

The development of shared understandings is an important aspect for the evaluation of the normativity of international climate change law.[257] This section examines the status of shared understandings that have been established and the issues that are still contested among different groups of countries in the UN climate regime.

A *Consensus-based UN Climate Regime Has Been Established*

The term 'regime' is regarded as a broad concept encompassing 'sets of norms, decision-making procedures and organisations' created in certain fields of international governance.[258] The convergence of expectations of various actors to a degree which is 'dominated by particular modes of behaviour, assumption and biases'[259] is the foundation of a regime.[260] The existence and development of a regime rely on the development of actors' shared understandings of

[257] According to the interactional theory of international law, the establishment of the normativity of international law relies on individual countries' shared understandings of behavioural standards and sense of obligation in the UN climate regime: see Brunnée (n 136) 1–52.
[258] Margaret A Young, 'Introduction: The Productive Friction between Regimes' in Margaret A Young (ed), *Regime Interaction in International Law: Facing Fragmentation* (Cambridge University Press, 2012) 11.
[259] Ibid.
[260] Robert O Keohane, 'The Demand for International Regimes' (1982) 36(2) *International Organization* 325.

various fundamental issues in the regime.[261]

The UN climate regime consists of international agreements, decisions of COPs, governance bodies and coordination mechanisms created during international climate change negotiations.[262] International agreements determine the basic structure and principles of global climate change governance. Decisions of COPs and other soft instruments address the technical and operational issues determined by international agreements. Governance bodies and coordination mechanisms form the institutional framework and negotiation platforms for various international actors to undertake continuous interactions in the making and implementation of international climate change law.[263]

The UN climate regime is an inherently consensus-based multilateral mechanism, resting on a solid foundation of individual countries' shared understandings of climate change problems.[264] In the UN climate regime, individual countries regularly 'deliberate on scientific, policy and legal issues pertaining to climate change' through mutually acceptable language and 'working knowledge', and the shared understandings of climate change may be enhanced via continuous interactions of individual countries in the UN climate regime.[265] The UN climate regime, inter alia, provides a platform for influential international actors (state actors or non-state actors) to set political agendas on the global response to climate change, or to link climate change with other political issues.[266] Through the continuous interactions of various international actors in the UN climate regime, their shared understandings of the normative contents and qualities of international climate change law may emerge, develop or stabilise over time.

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[261] The formation of a regime is influenced by 'behavioural or epistemic practices' or 'processes of learning' in the regime: see Benjamin Meiches and Raymond Hopkins, 'Regime Theory', *Oxford Research Encyclopedia* (Web Page, January 2018) <https://oxfordre.com/internationalstudies/view/10.1093/acrefore/9780190846626.001.0001/acrefore-9780190846626-e-472>.

[262] The UN climate regime is regarded as the most suitable platform to mobilise international efforts to resolve climate change problems: see Brunnée and Toope, *Legitimacy and Legality* (n 80) 142. On the detailed introduction of the UN climate regime, see Daniel Bodansky and Lavanya Rajamani, 'The Evolution and Governance Architecture of the United Nations Climate Change Regime' in Urs Luterbacher and Detlef F Sprinz (eds), *Global Climate Policy: Actors, Concepts, and Enduring Challenges* (MIT Press, 2018) 13–65.

[263] On the governance bodies of the UNFCCC, see Neier Henrik, Neyer Judith and Radunsky Klaus, 'International Climate Negotiations: Issues at Stake in View of the COP 24 UN Climate Change Conference in Katowice and Beyond' (Study Report PE 626.092, Study for the Committee on Environment, Public Health and Food Safety, European Parliament, Policy Department for Economic, Scientific and Quality of Life Policies, November 2018).

[264] Consensus breaking is relatively rare in the UN climate regime: see Bodansky, Brunnée and Rajamani (n 16) 75.

[265] Brunnée and Toope, *Legitimacy and Legality* (n 80) 144.

[266] Non-state actors such as media and civil societies have also played an important role in international climate change negotiations: see Benoit Mayer, 'Construing International Climate Change Law as a Compliance Regime' (2018) 7(1) *Transnational Environmental Law* 135–6 ('Construing International Climate Change Law as a Compliance Regime').

The UN climate regime has witnessed 25 yearly organised COPs under the UN platform, and a large body of legal and non-legal instruments have been generated during various phases of international climate change negotiations, as shown in Table 1. The UNFCCC is widely regarded as a framework convention, charter or constitution of the UN climate regime.[267] It enunciated the long-term objectives and guiding principles of the UN climate regime, and established the forum and parameters of the discourses of international climate change negotiations.[268] The Kyoto Protocol added the contour of the UNFCCC by establishing hard and quantitative mitigation targets and timetable to Annex B countries during the initial commitment period from 2008 to 2012.[269] The subsequent Doha Amendment to the Kyoto Protocol ('Doha Amendment') adopted in 2012 established the commitments of developed countries for the second commitment period from 2013 to 2020.[270] In addition, a new round of international negotiations was launched in 2011 based on the Durban Platform to negotiate international commitments after 2020.[271]

The Paris Agreement was considered a historic and significant climate change deal, representing a revolution for the UN climate regime, because it has established a common responsibility system for all countries from 2020 onwards.[272] However, the Paris Agreement

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[267] Wang Xi regards the UNFCCC as a 'framework convention': see 王曦 [Wang Xi], 《国际环境法》 [International Environmental Law] (法律出版社 [Law Press], 2005) 158. Cao Mingde regards the UNFCCC as a charter of the international climate change governance: see 曹明德 [Cao Mingde], 《中国参与国际气候治理的法律立场和策略: 以气候正义为视角》 [China's Positions and Strategies in the International Climate Change Negotiations: From the Perspective of Climate Justice] (2016) (1) 中国法学 *Jurisprudence of China* 29. The UNFCCC is also known as the constitution of the UN climate regime: see Bodansky and Rajamani (n 262) 13.

[268] The UNFCCC has established 'a legal and institutional framework for future work through regular meetings of the parties and the possible adoption of more substantive protocols': see Bodansky and Rajamani (n 262) 21. Wu maintains that the UNFCCC 'provides a fundamental framework for countries to coordinate their policies to address climate change by setting some basic rules, definitions and principles that guide relevant issues': see Fuzuo Wu, 'Sino–Indian Climate Cooperation: Implications for the International Climate Change Regime' (2012) 21(77) *Journal of Contemporary China* 829 ('Sino–Indian Climate Cooperation').

[269] The Kyoto Protocol required Annex I parties to reduce their overall emissions of six GHGs 'by at least 5 per cent below 1990 levels in the commitment period 2008 to 2012', as well as the pledges of quantitative reduction targets promised by different parties: see *Kyoto Protocol* (n 27) art 3(1), Annexes A and B. Annex B parties under the Kyoto Protocol include 38 industrialised countries and countries in transition as well as the European Community. Annex I parties under the UNFCCC include Annex B parties, Turkey and Belarus. In this thesis, Annex I parties and developed countries are used simultaneously.

[270] *Amendment to the Kyoto Protocol Pursuant to its Article 3, Paragraph 9 (the Doha Amendment)*, Decision 1/CMP.8, FCCC/KP/CMP/2012/13/Add.1 (28 February 2013) annex I ('*Amendment to the Kyoto Protocol*').

[271] *Outcome of the Work of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol at its sixteenth session*, Decision 1/CMP.7, FCCC/KP/CMP/2011/10/Add.1 (15 March 2012).

[272] On the positive evaluation of the role of the Paris Agreement, see 'Historic Climate Deal in Paris: EU Leads Global Efforts', *European Commission* (Web Page, 12 December 2015) <http://ec.europa.eu/clima/news/articles/news_2015121201_en.htm>; 'Statement by the President on the Paris Climate Agreement', *The White House* (Web Page, 12 December 2015) <https://www.whitehouse.gov/the-press-office/2015/12/12/statement-president-paris-climate-agreement>; Joby Warrick and Chris Mooney, '196 Countries Approve Historic Climate Agreement', *The Washington Post* (Web Page, 12 December 2015) <https://www.washingtonpost.com/news/energy-environment/wp/2015/12/12/proposed-historicclimate-pact-

only provides the objectives, principles and basic mechanisms of international cooperation on climate change. The detailed technical rules, guidelines and procedures of the basic mechanisms established in the Paris Agreement depend on the further preparation and negotiations of the Conference of the Parties Serving as the Meeting of the Parties to the Paris Agreement ('CMA') and its subsidiary bodies after its adoption.

It was not until COP24 that the Paris Rulebook, known as the Katowice Climate Package, was adopted to expand the guidelines, procedures and modalities for the operation of the core issues that the Paris Agreement required.[273] Through the Paris Rulebook, the obligations of the party countries under the Paris Agreement are generally elaborated, the principles and mechanisms of the Paris Agreement are largely 'sketched out'[274] and the Paris Agreement is finally brought to life.[275]

Table 1 Milestones of the Development of the UN Climate Regime[276]

Conferences	Instruments	Contributions to the UN Climate Regime
1992 Earth Summit	UNFCCC	The UNFCCC laid the foundation and framework for the UN climate regime.
1995 COP1	Berlin Mandate	The Berlin Mandate established a process for the negotiations of commitments for Annex I parties.
1997 COP3	Kyoto Protocol	The Kyoto Protocol was the first treaty that set legally binding GHG emissions targets for developed countries.
1998 COP4	Buenos Aires Plan of Action	The program of work on issues under the Kyoto Protocol was set out.
2001 COP6	Bonn Agreement	A political package on the operational rulebook of the Kyoto Protocol was reached.
2001 COP7	Marrakesh Accords	The operational rules of the Kyoto Protocol regarding technology, finance and compliance procedures were set out.

nears-final-vote/>; Radoslav S Dimitrov, 'The Paris Agreement on Climate Change: Behind Closed Doors' (2016) 16(3) *Global Environmental Politics* 1.

[273] These issues include the technical and procedural issues regarding further guidance on the features of INDCs, adaptation communication, transparency framework for action and support, global stocktake and the implementation of the Paris Agreement: see UNFCCC, 'Decisions Adopted at the Climate Change Conference in Katowice, Poland, 2–14 December 2018' (Web Page, 14 December 2018) <https://unfccc.int/decisions_katowice> ('Decision Adopted at the Climate Change Conference').

[274] Lavanya Rajamani and Daniel Bodansky, 'The Paris Rulebook: Balancing International Prescriptiveness with National Discretion' (2019) 68(4) *International and Comparative Law Quarterly* 1026.

[275] However, the Paris Rulebook has not made a significant breakthrough on rules concerning market-based approaches, as reflected in art 6 of the Paris Agreement: see World Resources Institute, 'Navigating the Paris Agreement Rulebook' (Web Page) <https://www.wri.org/paris-rulebook>.

[276] Bodansky and Rajamani divide the development of the UN climate regime into six periods: the foundational phase, the agenda-setting phase, the pre-negotiation period, the constitutional period, the regulatory phase and the second constitutional phase from 2001 until now: see Bodansky and Rajamani (n 262) 16. Zhang sets out three milestones for the evolution of the UN climate regime: the 1997 Kyoto phase, the 2009 Copenhagen phase and the 2015 Paris phase: see Zhang Zhongxiang (n 42) 3.

2005 COP11 (CMP1)	Decision establishing the AWG-KP and Dialogue	Two separate tracks were initiated regarding how to structure negotiations after the first commitment period.
2006 COP12 (CMP2)	Nairobi Work Programme on Impacts, Vulnerability and Adaptation	The Subsidiary Body for Scientific and Technological Advice ('SBSTA') was mandated to undertake a programme to address the impacts, vulnerability and adaptation regarding climate change.
2007 COP13 (CMP3)	Bali Road Map	The Bali Action Plan, under the Bali Road Map, initiated a new round of negotiations under the UNFCCC and identified four building blocks of international climate change negotiations: mitigation, adaptation, finance and technology.
2008 COP14 (CMP4)		The Adaptation Fund under the Kyoto Protocol and the Poznan Strategic Programme on Technology Transfer were initiated.
2009 COP15 (CMP5)	Copenhagen Accord	The Copenhagen Accord failed to conclude a legally binding mitigation obligation. A new architecture of GHG emissions mitigation based on pledges and transparency was initiated.
2010 COP16 (CMP6)	Cancun Agreements	The Cancun Agreements included the elements of the Copenhagen Accord, called for the 2℃ targets, and established the Green Climate Fund, the Technology Mechanism and the Cancun Adaptation Framework.
2011 COP17 (CMP7)		The Durban Conference set the second commitment period between 2013 and 2020, launched a new round of negotiations by establishing the Ad Hoc Working Group on the Durban Platform for Enhanced Action and reaffirmed the 2℃ targets.
2012 COP18 (CMP8)	Doha Amendment	The Amendment extended the Kyoto Protocol for a second commitment period.
2013 COP19 (CMP9)		The Warsaw Conference invited parties to prepare and submit their voluntary commitments in 2015.
2014 COP20 (CMP10)	Lima Call for Climate Action	The Lima Conference developed a framework for post-2020 climate actions based on INDCs.
2015 COP21 (CMP11)	Paris Agreement	The Paris Agreement brought all countries into a common framework of responsibilities and set forth a hybrid architecture for addressing climate change from 2020 onward.
2016 COP22 (CMP12, CMA1)		The Marrakech Conference launched the Marrakech Partnership for Climate Action.
2017 COP23 (CMP13, CMA1-2)		The Bonn Conference further negotiated the implementation of the Paris Agreement regarding the progression of 'take stock' and further worked on the Paris Rulebook.
2018 COP24 (CMP14, CMA1-3)	Paris Rulebook	The Katowice Conference adopted the Paris Rulebook.
2019 COP25 (CMP 15, CMA2)	Chile Madrid Time for Action	Chile Madrid Time for Action stressed the urgency of enhanced ambition to ensure the highest possible mitigation and adaptation efforts by all parties.

Source: Data retrieved from the introduction of COPs on the UNFCCC website.[277]
Notes: COP represents the Conference of the Parties on Climate Change; CMP represents the Conference of the Parties Serving as the Meeting of the Parties to the Kyoto Protocol; CMA represents the Conference of the Parties serving as the Meeting of the Parties to the Paris Agreement; AWG-KP represents the Ad Hoc Working Group on Further Commitments of Annex I Parties.

[277] UNFCCC, '25 Years of Effort and Achievement Key Milestones in the Evolution of International Climate Policy' (Web Page) <https://unfccc.int/timeline/>.

B *Scientific Certainty of Anthropogenic Climate Change Has Been Widely Accepted*

The legal response to the climate change problems will be more effective if it is firmly undertaken based on substantial scientific certainty.[278] In the UN climate regime, there is almost no doubt that the scientific consensus regarding the existence and severity of anthropogenic climate change has been achieved through the efforts of the Intergovernmental Panel on Climate Change ('IPCC') and mainstream climate scientists.

The IPCC is the most influential international organisation to promote scientific clarity on anthropogenic climate change through its assessment reports since 1988.[279] According to the five assessment reports of the IPCC, as shown in Table 2, anthropogenic climate change has become a conviction in scientific communities. Its fifth synthesis assessment report has strongly emphasised the unequivocal global warming and the extreme likelihood of human influences on the climate system.[280]

Although the credibility of the IPCC and its reports has been challenged by many climate denialists in many ways,[281] the IPCC reports are still the most reliable scientific assessments of climate change due to the merits of the reports in terms of both assessment processes and contents. In terms of assessment processes, the open and transparent review procedures of the

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[278] Ding Ding et al, 'Support for Climate Policy and Societal Action are Linked to Perceptions about Scientific Agreement' (2011) 1(9) *Nature Climate Change* 462–5; Stephan Lewandowsky, Gilles E Gignac and Samuel Vaughan, 'The Pivotal Role of Perceived Scientific Consensus in Acceptance of Science' (2012) 3(4) *Nature Climate Change* 399–404.

[279] The IPCC was established in 1988 by the World Meteorological Organization and the United Nations Environment Programme to provide scientific climate change information: see IPCC, 'About the IPCC' (Web Page) <https://www.ipcc.ch/about/>. The IPCC has provided five synthesis reports to assess the impacts of climate change in 1990, 1996, 2001, 2007 and 2013: see IPCC, 'Reports' (Web Page) <https://www.ipcc.ch/reports/>.

[280] The fifth synthesis assessment report concludes that a 95% certainty regarding the relationship between human activities and climate change has been established: see Core Writing Team, Rajendra K Pachauri and L A Meyer, *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (IPCC, 2015) 2. See also Eric Niiler, 'Global Warming: Why Only 95 Percent Certainty?', *Seeker* (Web Page, 27 September 2013) <https://www.seeker.com/global-warming-why-only-95-percent-certainty-1767874334.html>.

[281] The frequently cited criticisms encompass: (a) the IPCC is formed by a group of people with certain agendas. For instance, the IPCC is criticised as not a scientific research organisation, but an organisation with strong political will and agenda: see 江晓原 [Jiang Xiaoyuan], 《科学与政治: "全球变暖"争议及其复杂性》 [Science and Politics: Controversy on Global Warming and its Complexities] (2013) 3(2) 科学与社会 *Science and Society* 38-45. (b) certain countries' national interests may be vested to influence the process of report-making, and environmental and business lobby groups may influence the integrity of lead authors and delegations: see Ellen Hey and Andria Naudé Fourie, 'Participation in Climate Change Governance and its Implications for International Law' in Rosemary Rayfuse and Shirley V Scott, *International Law in the Era of Climate Change* (Edward Elgar Publishing, 2012) 38. (c) the IPCC reports are not scientifically supported, and many different views are not considered: see John W Zillman, 'Some Observations on the IPCC Assessment Process 1988–2007' (2007) 18(7) *Energy & Environment* 869–91.

IPCC ensure that its assessment reports represent the state of climate science rather than political or economic agendas.[282] Regarding assessment contents, the IPCC itself does not conduct any original research. Instead, the assessment reports of the IPCC are the summaries of published climate literature that are the most thoroughly peer-reviewed and carefully written articles, books and reports.[283] Therefore, the reports of the IPCC largely reflect the collective wisdom and expertise of climate experts and represent the broadest possible scientific opinions of scientific communities, and thus the assessment processes and contents of the IPCC reports are overall successful and trustworthy.[284]

In addition, the scientific certainty of anthropogenic climate change is firmly supported by mainstream climate scientists.[285] A considerable body of research has concluded that the globe is becoming warmer and humans are primarily responsible for this global warming.[286] For instance, Stenhouse et al concluded that 93% of climate scientists are convinced that human activities have contributed to global warming.[287] According to a survey conducted by the Pew Research Centre in 2015, 87% of 3,748 members of the American Association for the Advancement of Science agreed that the earth is becoming warm mostly due to human activities.[288] Another report conducted based on the published studies in 2016 showed that 97.1 % of the studies in climate science recognise anthropogenic global warming, and there

[282] The review processes of the IPCC make deliberate biases of its lead authors unlikely: see Zillman (n 281) 884.
[283] A Barrie Pittock, *Climate Change: The Science, Impacts and Solutions* (Criso Publishing, 2009) 309; Dana Nuccitelli, 'Global Warming: Why is IPCC Report so Certain about the Influence of Humans?', *The Guardian* (Web Page, 27 September 2013) <https://www.theguardian.com/environment/climate-consensus-97-per-cent/2013/sep/27/global-warming-ipcc-report-humans>.
[284] There were some minor errors in the fourth IPCC assessment report. The most notable errors include the statement that the Himalayan glaciers would disappear by 2035 and an incorrect number for the percentage of land in the Netherlands that is below sea level: see Simon Buckle and Paul Fennell, 'Are There Errors in the IPCC Reports?', *The Guardian* (Web Page, 6 June 2012) <https://www.theguardian.com/environment/2012/jun/06/ipcc-errors-climate-science>. These errors gave climate sceptics opportunities to challenge the credibility of climate data, and the ways of information collection and analysis of the IPCC reports: see Richard Black, 'UN Climate Body Admits 'Mistake' on Himalayan Glaciers', *BBC News* (Web Page, 19 January 2010) <http://news.bbc.co.uk/2/hi/science/nature/8468358.stm>; Netherlands Environmental Assessment Agency, 'Assessing an IPCC Assessment: An Analysis of Statements on Projected Regional Impacts in the 2007 Report' (Netherlands Environmental Assessment Agency, 2010) 43.
[285] John Cook et al, 'Quantifying the Consensus on Anthropogenic Global Warming in the Scientific Literature' (2013) 8(2) *Environmental Research Letters* 1–7.
[286] According to a survey conducted by Verheggen et al in 2014, 85% of the respondents agreed that anthropogenic GHGs are the dominant drivers of recent global warming: see Bart Verheggen et al, 'Scientists' Views about Attribution of Global Warming Environ' (2014) 48(16) *Environmental Science & Technology* 8963–71.
[287] Neil Stenhouse et al, '"Meteorologists" Views about Global Warming: A Survey of American Meteorological Society Professional Members' (2014) 95(7) *Bulletin of American Meteorological Society* 1029–40.
[288] Pew Research Centre, 'An Elaboration of AAAS Scientists' Views' (Web Page, 23 July 2015) <https://www.pewresearch.org/science/2015/07/23/an-elaboration-of-aaas-scientists-views/>.

was only a 'vanishing small proportion' rejecting this.[289] In short, the scientific consensus on the profound and irrevocable anthropogenic climate change has been firmly established in scientific communities.

Table 2 State of Scientific Certainty in the IPCC Assessment Reports

Assessment Reports (AR)	Degree of Certainty		
	Existence of Global Warming	**Human Influences**	**Likelihood Scale (%)**
AR 1	The greenhouse effect keeps the earth warmer than it would otherwise be.	The atmospheric concentrations of GHGs have substantially increased due to the emissions resulting from human activities.	66–100
AR 2	GHG concentrations have continued to increase.	There are discernible human influences on the global climate.	66–100
AR 3	Most of the observed warming over the last 50 years is likely to have been due to the increase in GHG concentrations.	There is new and stronger evidence that most of the warming observed over the last 50 years is attributable to human activities.	66–100
AR 4	Global warming is unequivocal.	Most of the observed increase in global average temperatures since the mid-20th century is very likely due to anthropogenic GHG concentrations.	90–100
AR 5	Global warming is unequivocal.	More than half of the observed increase in global average surface temperatures from 1951 to 2010 was likely caused by anthropogenic GHG concentrations.	95–100

Source: Data retrieved from the five assessment reports of the IPCC[290] and the Guidance Note.[291]

C *Core Subject Matters of International Climate Change Law Have Been Generally Formed*

There has been an evolution of international climate change negotiations over time. Negotiation issues such as the long-term temperature goal, mitigation and adaptation actions, supports and implementation and compliance processes have become the core subject matters of international climate change law. The normative contents of international climate change law have been institutionalised by focusing on these core subject matters, although the normative

[289] John et al examined 11,944 abstracts that have the topics of 'global climate change' or 'global warming' between 1991 and 2011: see John Cook et al, 'Consensus on Consensus: A Synthesis of Consensus Estimates on Human-Caused Global Warming' (2016) 11(4) *Environmental Research Letters* 1.

[290] J T Houghton, G J Jenkins and J J Ephraums (eds), *Climate Change 1990: The IPCC Scientific Assessment* (IPCC, 1990); J T Houghton et al (eds), *Climate Change 1995: The Science of Climate Change* (IPCC, 1996); James J McCarthy et al (eds), *Climate Change 2001: Impacts, Adaptation, and Vulnerability* (IPCC, 2001) 21; Susan Solomon et al (eds), *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (IPCC, 2007); Core Writing Team, Pachauri and Meyer (eds) (n 280).

[291] Michael D Mastrandrea et al, *Guidance Note for Lead Authors of the IPCC Fifth Assessment Report on Consistent Treatment of Uncertainties: IPCC Cross-Working Group Meeting on Consistent Treatment of Uncertainties Jasper Ridge, CA, USA* (Guidance Note, IPCC, 6–7 July 2010).

forces of international climate change law among them vary to some extent.

1 *Long-Term Temperature Goal*

The long-term temperature goal is a substantive issue regarding the obligations of individual countries under international climate change law. The UNFCCC sets an objective to stabilise GHG concentrations 'in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system' and allows ecosystems to adapt to climate change naturally and 'enable sustainable economic development'.[292] Thus, the UNFCCC is not intended to stop individual countries from emitting GHGs, but aims to stabilise the trajectory or rate of change of GHG emissions by setting collective long-term temperature goals.[293] The Copenhagen Accord for the first time specified this objective to a 2 ℃ long-term temperature goal, which will 'hold the increase in global temperature below 2 degrees Celsius'.[294] The Cancun Agreement confirmed this goal and recognised the need to reconsider this 2 ℃ goal in association with a goal of 1.5 ℃ based on 'the best available scientific knowledge'.[295] The Paris Agreement has formally recognised the long-term temperature goals of 2 ℃ and 1.5 ℃,[296] and has set aims to peak GHG emissions as soon as possible and achieve net zero emissions during the second half of the century.[297]

2 *Mitigation*

Mitigation is regarded as the 'preferred approach' to resolve climate change problems.[298] It relies on the quantitative reduction of GHG emissions and other measures to preserve or enhance emission sinks, such as market mechanisms or taxes.[299] Emission reduction targets can be either an absolute emission cap for a period of time or a variable target on the condition of the development levels of GDP.[300] Emission sink measures are various, including policies and measures concerning land use, land-use change, and forestry, and measures related to

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[292] *UNFCCC* (n 1) art 2. This objective has also been recognised, invoked or developed in the Kyoto Protocol, the Copenhagen Accord and the Paris Agreement: see *Kyoto Protocol* (n 27) preamble; *Copenhagen Accord*, Decision 2/CP.15, FCCC/CP/2009/11/Add.1 (30 March 2010) paras 1 and 2; *Paris Agreement* (n 3) art 2.

[293] Bodansky and Rajamani (n 262) 34–5.

[294] *Copenhagen Accord* (n 292) art 2.

[295] *The Cancun Agreements: Outcome of the Work of the Ad Hoc Working Group on Long-Term Cooperative Action under the Convention*, Decision 1/CP.16, FCCC/CP/2010/7/Add.1 (15 March 2011) para 4 ('The Cancun Agreements').

[296] The parties to the Paris Agreement agreed to hold the increase of the global average temperature to 'well below 2 ℃ above pre-industrial levels' and to pursue efforts towards 1.5°C above pre-industrial levels: see *Paris Agreement* (n 3) art 2(1)(a).

[297] Ibid art 4(1).

[298] Bodansky and Rajamani (n 262) 40.

[299] Pam M Berry et al, 'Cross-Sectoral Interactions of Adaptation and Mitigation Measures' (2015) 128 *Climatic Change* 382.

[300] Bodansky and Rajamani (n 262) 40.

reducing emissions from deforestation and forest degradation.[301]

Mitigation targets in different commitment periods have always been the focus of international climate change negotiations. The UNFCCC established a collective target for developed countries to return their GHG emissions to 1990 levels by 2000;[302] the Kyoto Protocol set quantitative mitigation targets for individual countries listed in its Annex B for the first commitment period from 2008 to 2012;[303] the Doha Amendment further set a target to reduce GHG emissions by at least 18% below 1990 levels for the second commitment period from 2013 to 2020;[304] and the Paris Agreement adopted a voluntary approach, through which individual countries can determine their national contributions to the global response to climate change for the post-2020 period.[305]

3 *Adaptation*

Adaptation is an active response to the adverse impacts of climate change by restoring ecosystem resilience or circumventing damages caused by climate change.[306] According to the fourth synthesis report of the IPCC, adaptation action refers to 'initiatives and measures to reduce the vulnerability of natural and human systems against actual or expected climate change effects'.[307] Because it is difficult to define and track the efforts and actions of individual countries on adaptation, adaptation was viewed as a domestic issue instead of a global issue,[308] and the development of international law on adaptation lagged behind mitigation in the UN climate regime.[309] For instance, the UNFCCC merely provides general and vague requirements on adaptation,[310] which shows that adaptation was not highlighted as being as important as mitigation during the early stages of international negotiations.

The Bali Action Plan, for the first time, sought to enhance action on adaptation to address the growing adverse impacts of climate change.[311] The Cancun Adaptation Framework formally

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[301] Bodansky, Brunnée and Rajamani (n 16) 12.
[302] *UNFCCC* (n 1) art 4(2).
[303] *Kyoto Protocol* (n 27) annex B.
[304] *Amendment to the Kyoto Protocol* (n 270) annex I.
[305] *Paris Agreement* (n 3) art 3.
[306] Martin Parry et al (eds), *Climate Change 2007: Impacts, Adaptation and Vulnerability* (Cambridge University Press, 2007) 809.
[307] Core Writing Team, Rajendra K Pachauri and Andy Reisinger (eds), *Climate Change 2007: Synthesis Report* (IPCC, 2007) 76.
[308] Berry et al (n 299) 382; Bodansky, Brunnée and Rajamani (n 16) 14.
[309] Alexandra Lesnikowski et al, 'What Does the Paris Agreement Mean for Adaptation?' (2017) 17(7) *Climate Policy* 826; Alexandre K Magnan and Teresa Ribera, 'Global Adaptation after Paris: Climate Mitigation and Adaptation Cannot be Uncoupled' (2016) 352(6291) *Science* 1280–82.
[310] *UNFCCC* (n 1) art 4(4).
[311] *Bali Action Plan*, Decision 1/CP.13, FCCC/CP/2007/6/Add.1 (14 March 2008) para 1(c).

gives the same priority to adaptation as mitigation and initiates 'appropriate institutional arrangements to enhance adaptation action and support'.[312] The Paris Agreement has further scaled up international ambitions on the enhancement of adaptive capacity and has recognised adaptation as a critical component of global responses to climate change.[313] In addition, the Paris Agreement has also strengthened the procedural arrangements on adaptation, such as the introduction of adaptation communications and global stocktake procedures.[314] In short, through the continuous efforts of individual countries, adaptation has become an essential pillar of international climate change negotiations.[315]

4 *Financial Support*

The UN climate regime recognises that developing countries do not have sufficient financial capacity to effectively address climate change problems alone.[316] Therefore, financial support is needed for the mitigation and adaptation actions of developing countries.[317] The provision of financial support has become one of the core subject matters of international climate change law since the UNFCCC required developed countries to provide financial support to developing countries.[318] After the UNFCCC, the UN climate regime established the Global Environment Facility ('GEF') and the Green Climate Fund ('GCF') to serve as the operating entities of financial support.[319] Subsequently, the Adaptation Fund was established in 2001 to support the adaptation projects of developing countries under the Kyoto Protocol,[320] and developed countries agreed to provide USD30 billion from 2010 to 2012 and mobilise USD100 billion per year by 2020 to meet the financial needs of developing countries.[321] The Paris Agreement continues to strengthen the obligations of developed countries to provide financial support to

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312 *The Cancun Agreements* (n 295) para 2(b).
313 *Paris Agreement* (n 3) art 7.
314 Ibid arts 7(10), 7(14), 13 and 14.
315 Adaptation has become one of the pillars of the UN climate regime since the Bali Action Plan: see Bodansky and Rajamani (n 262) 49.
316 On the rationales for the commitment to financial support, see Alexander Zahar, *Climate Change Finance and International Law* (Routledge, 2017) 11, 23 ('Climate Change Finance'). Zahar defines 'climate finance' as consisting of 'state finance' and 'state-leveraged finance', both of which must have state involvements.
317 UNFCCC, 'Introduction to Climate Finance' (Web Page) <https://unfccc.int/topics/climate-finance/the-big-picture/introduction-to-climate-finance>.
318 *UNFCCC* (n 1) arts 4(3) and 11.
319 Ibid art 21(3). The GCF was incorporated into the UNFCCC process through the Cancun Agreements: see *The Cancun Agreements* (n 295) para 102. In addition, the Special Climate Change Fund and the Least Developed Countries Fund have been established and managed by the GEF: see UNFCCC, 'Introduction to Climate Finance' (Web Page) <https://unfccc.int/topics/climate-finance/the-big-picture/introduction-to-climate-finance>.
320 *Marrakesh Accords: Funding under the Kyoto Protocol*, Decision -/CP.7 (2001) para 1. The Katowice Conference agreed that the Adaptation Fund would serve the Paris Agreement: see *Matters Relating to the Adaptation Fund*, Decision 13/CMA.1, FCCC/PA/CMA/2018/3/Add.2 (19 March 2019) para 1.
321 *Copenhagen Accord* (n 292) para 8.

developing countries.[322] The COP decision accompanying the Paris Agreement extends developed countries' existing USD100 billion mobilisation goal through 2025 and sets a new collective quantified goal by using USD100 billion per year as a floor from 2025.[323]

5 *Technology Support*

Climate technologies, such as renewable energies, drought-resistant crops, early warning systems and sea walls, are essential for developing countries to reduce GHG emissions or to adapt to the negative impacts of climate change.[324] The UNFCCC requires developed countries to provide climate technologies to developing countries,[325] and stresses that the extent to which developing countries implement their commitments will rely on how effectively developed countries implement their commitments in terms of technology support.[326] However, the operational mechanism of technology support was shaped until the Cancun Agreements, which created a Technology Mechanism, consisting of two complementary bodies: the Technology Executive Committee ('TEC') and the Climate Technology Centre and Network ('CTCN'), to implement the relevant articles of the UNFCCC relating to technological support.[327] The Paris Agreement further requires developed countries to provide developing countries with technology support,[328] and creates a Technology Framework to provide overarching guidance to the Technology Mechanism.[329]

6 *Implementation and Compliance*

Implementation and compliance, as two important procedural subject matters, are critical for the operation of international climate change law. Due to the consensus-based nature of the UN climate regime, classic enforcement tools, such as adjudication and sanctions, are not

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[322] *Paris Agreement* (n 3) art 9.

[323] *Adoption of the Paris Agreement*, Decision 1/CP.21, FCCC/CP/2015/10/Add.1 (29 January 2016) para 53; *Setting a New Collective Quantified Goal on Finance in Accordance with Decision 1/CP.21, para 53*, Decision 14/CMA.1, FCCC/PA/CMA/2018/3/Add.2 (19 March 2019). However, the pledges are insufficient to fulfil the goals set by the Paris Conference: see Joe Thwaites and Niranjali Manel Amerasinghe, 'INSIDER: Finance Deal at COP24 Includes Important Breakthroughs, but Delivery Will Be Crucial', *World Resources Institute* (Web Page, 19 December 2018) <https://www.wri.org/blog/2018/12/insider-finance-deal-cop-24-includes-important-breakthroughs-delivery-will-be-crucial>.

[324] UNFCCC, 'What is Technology Development and Transfer?' (Web Page) <https://unfccc.int/topics/climate-technology/the-big-picture/what-is-technology-development-and-transfer>.

[325] *UNFCCC* (n 1) art 4(5).

[326] Ibid art 4(7).

[327] *The Cancun Agreements* (n 295) para 113.

[328] *Paris Agreement* (n 3) art 10(6).

[329] Ibid art 10(4). The Technology Framework contains five areas, including innovation, implementation, enabling environment and capacity-building, collaboration and stakeholder engagement, and support: see *Technology Framework under Article 10, Paragraph 4, of the Paris Agreement*, Decision 15/CMA.1, FCCC/PA/CMA/2018/3/Add.2 (19 March 2019) annex part III ('*Technology Framework under Article 10*').

practically successful.[330] To promote individual countries to effectively implement their commitments, the UN climate regime has developed procedural arrangements, such as reporting and review processes and compliance mechanisms.

In terms of the reporting process, individual countries are required to submit national GHG inventories, national communications and biennial (update) reports, which report information relating to GHG emissions and the measures and policies on climate change.[331] GHG inventories report the basic data and information regarding the sources and sinks of GHG emissions and serve as a baseline for the evaluation of individual countries' implementation and compliance with their commitments.[332] National communications and biennial reports are transparency reports through which individual countries periodically provide the information of national GHG inventories and the measures and actions on climate change.[333]

Regarding the review processes, the UN climate regime has developed facilitative international review mechanisms. Under the Kyoto Protocol, the review processes of individual countries' reports include an in-depth expert review of national communications and synthesis reports.[334] The Cancun Agreements enrich the review processes by adding a process of international assessment and review for developed countries, and a process of international consultation and analysis for developing countries.[335] The enhanced transparency framework of the Paris Agreement has further built on the review processes by developing a technical expert review process and a 'facilitative, multilateral consideration of progress' on the implementation of individual countries' commitments.[336]

In terms of compliance mechanism, the UN climate regime has developed a facilitative rather than robust compliance mechanism. Although the UNFCCC provides a set of classical tools for dispute resolution, these tools have not been applied.[337] With a different approach, the Paris Agreement establishes a 'transparent, non-adversarial and non-punitive' compliance

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330 Mayer, 'Construing International Climate Change Law as a Compliance Regime' (n 266) 117.
331 *UNFCCC* (n 1) art 12; *Kyoto Protocol* (n 27) art 7; *The Cancun Agreements* (n 295) paras 40 and 60; *Paris Agreement* (n 3) art 13(4).
332 Bodansky and Rajamani (n 262) 50.
333 On the requirements on national communications and biennial reports made by COPs, see UNFCCC, 'National Communications and Biennial Reports – Decisions and Reports' (Web Page) <https://unfccc.int/process-and-meetings/transparency-and-reporting/reporting-and-review-under-the-convention/national-communications-and-biennial-reports-annex-i-parties/preparation-of-ncs-and-brs/national-communications-and-biennial-reports-decisions-and-reports>.
334 Kyoto *Protocol* (n 27) art 8.
335 *The Cancun Agreements* (n 295) paras 44 and 63.
336 *Paris Agreement* (n 3) arts 13(11)–(12).
337 *UNFCCC* (n 1) art 14.

mechanism to facilitate rather than mandate compliance.[338] In the decentralised international world where individual countries do not have political confidence to accept a compulsory compliance system, the facilitative nature of the compliance mechanism in the Paris Agreement may gradually raise the awareness of individual countries and 'build momentum towards state compliance'.[339]

D *Responsibility Allocation is Still Contested*

According to the fifth synthesis report of the IPCC, the impacts caused by climate change are 'unevenly distributed and are generally greater for disadvantaged people and communities',[340] while the economic activities causing GHG emissions disproportionately benefit developed countries.[341] The uneven distribution of losses and benefits caused by climate change makes the fairness of responsibility allocation between developed and developing countries especially relevant.[342] However, the formula of a fair allocation of responsibilities is still far from being widely accepted in the UN climate regime, and there still exist multiple factors that influence individual countries' perceptions of the fairness of responsibility allocation.

1 *Multiple Factors Influencing the Fairness of Responsibility Allocation*

Various factors determine the fairness of responsibility allocation.[343] Central to the fairness of responsibility allocation are three major dynamic factors: historically accumulated emissions, per capita emissions and capability.

(a) Historically Accumulated Emissions

The factor of historically accumulated emissions embodies the degree of responsibility of those

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338 *Paris Agreement* (n 3) art 15(2).
339 Mayer, 'Construing International Climate Change Law as a Compliance Regime' (n 266) 135.
340 Core Writing Team, Pachauri and Meyer (n 280) 13.
341 Mayer, 'Construing International Climate Change Law as a Compliance Regime' (n 266) 116.
342 Tseng views responsibility allocation in the UN climate regime as an ideological strife among different groups of countries: see Yi-tsui Tseng, 'A Discursive Perspective on China's Global Politics of Climate Change, 1992-2013' (PhD Thesis, University of Denver, 2015) 2.
343 Ashton and Wang summarise five dimensions of the equity approach, including responsibility, equal entitlement, capacity, basic needs and comparability of efforts: see John Ashton and Xueman Wang, 'Equity and Climate in Principle and Practice' in Joseph E Aldy et al (eds), *Beyond Kyoto: Advancing the International Effort against Climate Change* (Pew Centre on Global Climate Change, 2003) 61–84. Northrop and Waskow summarise key factors that can be used to evaluate the fairness of responsibility allocation, including (a) historical, current and projected emissions, and the level and type of actions given its emission responsibility and profile, (b) capability and development needs, (c) vulnerability and capacity to adapt, and (d) potential and opportunities for action: see Eliza Northrop and David Waskow, 'A Framework for Describing Fairness and Ambition in Intended Nationally Determined Contributions' (Working Paper, World Resources Institute, August 2015) 4.

who have done wrongful acts in causing climate change.[344] Developed countries have contributed to the accumulated GHG emission stock much more than developing countries during the industrialisation process,[345] and the GHGs emitted by developed countries throughout history remain in the atmosphere for an extended period.[346] To reflect the corrective justice and historical responsibility, it is fair to require developed countries to shoulder the lion's share of costs to address climate change problems. However, many controversies exist in the determination of historically accumulated emissions. The starting year, the scope of GHGs and other dynamic factors that should be considered in the calculation of historically accumulated emissions are still under intensive academic debate.[347] For instance, some analysts and organisations maintain that historical emissions should be traced starting from 1990 when international climate change negotiations formally started,[348] while others argue that the starting year should be much earlier than 1990,[349] because more than two-thirds of CO_2 emissions remain in the atmosphere for several decades and approximately 15–40% remain in the atmosphere for more than 1,000 years.[350]

(b) Per Capita Emissions

The factor of per capita emissions is considered from an egalitarian perspective, which suggests that each person should have equal rights to emit the same amount of GHGs.[351] It recognises the equal share of each country's responsibility and takes into account all the historical, current and future contributions of each country to the concentrations of GHG emissions.[352] As noted by a report conducted by Oxfam, the poorest half of the global population are responsible for

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[344] Tilton proposes the historic polluter pays principle to 'contend that developed countries should pay for all or most of the costs of reducing greenhouse gas emissions': see John E Tilton, 'Global Climate Policy and the Polluter Pays Principle: A Different Perspective' (2016) 50 *Resources Policy* 118.

[345] According to AR5 of the IPCC, per capita GHG emissions contributed by developed countries are 2.5 times more than those from developing countries: see Ottmar Edenhofer et al (eds), *Climate Change 2014: Mitigation of Climate Change, Working Group III Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (IPCC, 2014) 113.

[346] Thomas F Stocker et al (eds), *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press, 2013) 472.

[347] 林洁[Lin Jie] et al, 《公平实现<巴黎协定>目标的碳减排贡献分担研究综述》[A Review on the Studies of Equitable Sharing in National Mitigation Contributions to Achieve the Paris Agreement Ambitions] (2018) 14(5) 气候变化研究进展 *Climate Change Research* 529–39.

[348] Eric A Posner and Cass R Sunstein, 'Climate Change Justice' (2008) 96 *Georgetown Law Journal* 1598. The CAT traces individual countries' historically accumulated emissions started in 1990: see CAT (n 43).

[349] 林洁[Lin Jie] et al (n 347) 531.

[350] Stocker et al (n 346) 472.

[351] Egalitarianism is reflected in this approach: see Mi Zhifu, 'Assessment of Equity Principles for International Climate Policy Based on an Integrated Assessment Model' (2019) 95(1) *Natural Hazards* 314; Edenhofer et al (n 345) 283–350.

[352] Hans Opschoor, 'Sustainable Development and a Dwindling Carbon Space' (2010) 45(1) *Environmental and Resource Economics* 3.

only around 10% of global GHG emissions, whereas the richest 10% of people worldwide are responsible for around half of the global GHG emissions.[353] Based on the factor of per capita emissions, countries with high per capita emissions should reduce their GHG emissions, whereas countries with low per capita emissions should have more space to emit. Therefore, the factor of per capita emissions can be employed by late developers, most of which are developing countries with a large population, to justify their position in claiming for the same level of GHG emissions as those that developed countries have already emitted.[354]

To enable responsibility allocation based on per capita emissions, many analysts and organisations have designed various allocation methods under the factor of per capita emissions. The contraction and convergence proposed by the Global Commons Institute involves emissions from developed countries reducing (contracting) and emissions from all countries converging to a certain level, which can meet the stabilisation of GHG concentrations in the atmosphere, and each person's emissions are equalised through contraction and convergence over time.[355] Another method is the carbon budget proposal, which sets an absolute constraint of the global carbon emissions, and allocates the overall carbon budget to 'all members of the global village on a per capita basis'.[356]

(c) Capability

Capability is an important factor that deserves equal attention in the fair allocation of responsibilities. Some countries do not have historical wrongdoings, but their responsibilities are still justified by virtue of their capability.[357] Capability cannot be simply interpreted as the growth of a country's GDP. A narrow focus on the GDP index will overlook the overall capability of a country.[358] A more comprehensive manifestation of a country's capability extends to its overall financial and technological capabilities, including economic power, technological innovations, governance capacity, information collection and processing experiences, and so on.[359] Based on the capability factor, countries that have strong

[353] Timothy Gore et al, 'Extreme Carbon Inequality: Why the Paris Climate Deal Must Put the Poorest, Lowest Emitting and Most Vulnerable People First' (Oxfam Media Briefing, 2 December 2015) 1.
[354] Tørstad and Sælen (n 165) 645; Pan Jiahua and Chen Ying, 'Carbon Budget Proposal: A Framework for an Equitable and Sustainable International Climate Regime' (2010) 31(1) *Social Sciences in China* part IV.
[355] Aubrey Meyer, 'Contraction and Convergence: The Global Solution to Climate Change' (Schumacher Briefing No 5, Global Commons Institute, November 2000).
[356] Pan and Chen (n 354) 5–34.
[357] Steve Vanderheiden, 'Climate Change and Collective Responsibility' in Nicole A Vincent, Ibo van de Poel and Jeroen van den Hoven (eds), *Moral Responsibility: Beyond Free Will and Determinism* (Springer, 2011) 203.
[358] Harald Winkler, Thapelo Letete and Andrew Marquard, 'Equitable Access to Sustainable Development: Operationalizing Key Criteria' (2013) 13(4) *Climate Policy* 413. See also Arild Underdal and Taoyuan Wei, 'Distributive Fairness: A Mutual Recognition Approach' (2015) 51 *Environmental Science & Policy* 38.
[359] Underdal and Wei (n 358) 38; Tørstad and Sælen (n 165) 645; Wang and Gao (n 195) 257–9.

technological, financial and human capabilities are required to contribute more than countries that do not have similar capabilities.[360] Meanwhile, capability is a dynamic concept, and so is the justification of a country's share of responsibilities based on the capability factor.[361] Thus, with the growth of the capability of developing countries, they should be ready to adjust their position in international climate change negotiations and to take more responsibilities based on their increased capability.

These factors may be selectively used by different groups of countries to serve their national interests or to strengthen their bargaining power in international climate change negotiations. To serve their national interests and domestic agendas, individual countries interpret the fairness of responsibility allocation in a divergent fashion.[362] Developing countries generally seek to create an identity-based differentiation between developing and developed countries based on historically accumulated GHG emissions or per capita GHG emissions,[363] whereas developed countries tend to interpret the fairness of responsibility allocation in a more nuanced and flexible way based on changed emission realities and national circumstances.[364] For instance, some developing countries have attempted to use the historical justice narrative to require developed countries to bear primary responsibilities on climate change,[365] or to compensate for their 'ecological debt' for an ethical reason.[366] In contrast, the US has never taken a position to formally accept the differentiation between developed and developing

[360] Hey and Fourie (n 281) 161.
[361] Tørstad and Sælen (n 165) 646.
[362] Fairness has been used by negotiators to serve their own interests: see Andreas Lange et al, 'On the Self-Interested Use of Equity in International Climate Negotiations' (2010) 54(3) *European Economic Review* 359–75; Underdal and Wei (n 358) 35–44.
[363] On the attitudes of developing countries, such as Brazil and India, towards the principle of CBDR, see UNFCCC, 'Views of Brazil on the Elements of the New Agreement under the Convention Applicable to All Parties' (Web Page, 6 November 2014) <http://www4.unfccc.int/submissions> 3; UNFCCC, 'Submission by India on the Work of the Ad-Hoc Working Group on the Durban Platform for Enhanced Action: Workstream I' (Web Page, 13 September 2013) <https://unfccc.int/files/documentation/submissions> 2.
[364] As Bodansky and Rajamani put it, 'many developing countries argue that developed countries should bear the burden of dealing with climate change, since they account for the majority of cumulative CO_2 emissions'. However, 'developed countries argue that developing countries cannot be exempt from taking action, since total emissions from developing countries have overtaken those from industrialized countries, and emissions from large developing countries are projected to continue to rise sharply': see Bodansky and Rajamani (n 262) 14. See also Raymond Clémençon, 'The Two Sides of the Paris Climate Agreement: Dismal Failure or Historic Breakthrough?' (2016) 25(1) *Journal of Environment & Development* 5.
[365] Permanent Mission of South Africa to the United Nations, 'Statement by Ambassador Nozipho Mxakato-Diseko from South Africa on Behalf of the Group of 77 and China, at the Opening Plenary of the 12th Part of the 2nd Session of the Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP 2-12)' (Web Page, 29 November 2015) <http://www4.unfccc.int/Submissions>.
[366] Peter Neill, 'Ecological Debt and the Global Footprint Network', *The Huffington Post* (Web Page, 4 January 2015) <https://www.huffingtonpost.com/peter-neill/ecological-debt--the-glob_b_6101200.html>.

countries based on a mandatory recognition of historical emissions,[367] and the EU has also maintained that contemporary global actions on climate change should focus on the current situation instead of being 'bound by history'.[368] Due to the diversity of national interests behind responsibility allocation, it is hard to define a precise formula of fair allocation of responsibility that is widely accepted by all the members of the UN climate regime. Instead, the self-serving interpretations of the fairness of responsibility allocation somewhat lead international climate change negotiations to become a 'finger-pointing game' through which different groups of countries blame each other for the irresponsibility of their behaviours.[369]

2 *Multiple Understandings of the Principle of CBDR*

The principle of CBDR has been widely accepted as one of the cornerstone principles in relation to the allocation of responsibility in the UN climate regime.[370] It requires all countries to take responsibility to address the anthropogenic climate change problems and allows the differentiation of responsibility in response to the special concerns of developing countries. However, the bases and extents of differentiation are still contested among different groups of countries owing to the high degree of indeterminacy in the normative contents of the principle of CBDR.[371] To support their arguments in international climate change negotiations, different countries interpret the legal nature of the principle of CBDR and the consequences of violating this principle based on their national interests and domestic preferences.[372]

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[367] For instance, the US argued that the post-2020 regime should consider the commonality of all countries' responsibilities based on their 'economic development and emission realities': see UNFCCC, 'Advancing the Work of the ADP' (Web Page, 27 July 2012) <http://unfccc.int/files/documentation/submissions>.

[368] Yu Hongyuan, 'The Paris Climate Agreement and China's Role in Global Climate Governance' (2016) 2(2) *China Quarterly of International Strategic Studies* 189 ('The Paris Climate Agreement and China's Role'). As recorded by Hjerpe et al, the EU and the Umbrella Group were less supportive of the factor of historically accumulated emissions in the Copenhagen Conference: see Mattias Hjerpe et al, 'Common Ground for Effort Sharing? Preferred Principles for Distributing Climate Mitigation Efforts' (Working Paper No 491, University of Gothenburg, 2011) 18.

[369] The self-serving interpretations of the fairness of responsibility allocation have been verified by the position of various groups of countries in international climate change negotiations: see Tørstad and Sælen (n 165) 645–6. See also Chen (n 87) 21; Yu, 'The Paris Climate Agreement and China's Role' (n 368) 187–8.

[370] The principle of CBDR has been endorsed by many international instruments in the UN climate regime: see *UNFCCC* (n 1) art 3(1) and 4; *Kyoto Protocol* (n 27) arts 2(1)(a) and 10. It has also been reflected in many international environmental instruments: see *The Rio Declaration on Environment and Development*, A/CONF.151/26 (Vol I) (12 August 1992) principles 6 and 7; *Agenda 21* (14 June 1992) para 39.3(d); *Montreal Protocol on Substances that Deplete the Ozone Layer*, open for signature 16 September 1987 (entered into force 1 January 1989) arts 2A(1), 2A(4) and 5.

[371] French categorises this sort of principle as a meta-principle: see French (n 178) 594.

[372] For instance, the countries in the Organisation for Economic Cooperation and Development (OECD) (major developed countries), BASIC group (major developing countries) and the Alliance of Small Island States (AOSIS) Group have different understandings of the core contents and nature of the principle of CBDR: see Pieter Pauw et al, 'Different Perspectives on Differentiated Responsibilities: A State-of-the-Art Review of the Notion of Common but Differentiated Responsibilities in International Negotiations' (Discussion Paper, Deutsches Institut für Entwicklungspolitik, 2014) 21–9 ('Different Perspectives on Differentiated Responsibilities').

Regarding its legal nature, most developing countries shape a compelling nature of the principle of CBDR using formal wording in international negotiations, or pushing for the institutionalisation of the principle of CBDR in practices, whereas developed countries have consistently sought to counter the attempts of developing countries.[373] Developed countries often treat the principle of CBDR as an ad hoc arrangement of international cooperation, which only suggests a temporary cooperative mechanism to solve a given issue in relation to climate change, whereas developing countries are more eager to give the principle of CBDR a formal status as part of customary international law that sets legal rights and liabilities on individual countries.[374]

Due to their different understandings of the legal nature of the principle of CBDR, the consequences of breaking this principle is also contested between developed and developing countries. Developed countries generally regard their responsibilities in providing financial and technological support as a matter of pragmatism or benevolence, whereas developing countries attempt to push developed countries to accept their responsibility based on the principle of CBDR as an outgrowth of legal liability.[375]

II DEVELOPMENT OF THE NORMATIVE QUALITIES OF INTERNATIONAL CLIMATE CHANGE LAW

International climate change law exerts normative forces to individual countries through its normative qualities. This section examines the development of the six interrelated normative qualities at different stages of international climate change negotiations, including the fairness of responsibility allocation among individual countries, the degree of determinacy and stringency of legal norms, the level of participation from individual countries, and the coherence of legal norms within and outside the UN climate regime.

[373] Thomas Deleuil, 'The Common but Differentiated Responsibilities Principle: Changes in Continuity after the Durban Conference of the Parties' (2012) 21(3) *Review of European Community & International Environmental Law* 275.

[374] Tuula Honkonen, 'The Development of the Principle of Common but Differentiated Responsibilities and its Place in International Environmental Regime' in Tuomas Kuokkanen et al, *International Environmental Law-Making and Diplomacy* (Routledge, 2016) 179; Brunnée and Toope, *Legitimacy and Legality* (n 80) 160.

[375] Jekwu Ikeme, 'Equity, Environmental Justice and Sustainability: Incomplete Approaches in Climate Change Policies' (2003) 13(3) *Global Environmental Politics* 202–3.

A *Fairness: Shifting from a Bifurcated Differentiation Approach to a Self-Differentiation Approach*

The fairness of responsibility allocation largely shapes the perceptions of individual countries of the rightness of international climate change law in addressing climate change problems, and influences their reception of the normative role of international climate change law. The principle of CBDR is expected to respond to the 'voices demanding fairer rules' in the global response to climate change by differentiating responsibilities among individual countries based on various factors.[376] However, the differentiation of responsibilities has always been disputed among different groups of countries,[377] and the parameters of differentiation have always been in an evolved process throughout the different stages of international climate change negotiations.

The UNFCCC recognises 'the largest share of historical and current emissions' of developed countries and the low per capita emissions of developing countries in its preamble.[378] Given their different contributions to the global GHG concentrations, the UNFCCC establishes a bifurcated differentiation of responsibilities between Annex I countries and non-Annex I countries,[379] and requires Annex I countries to take the lead in climate change actions and support.[380] The Kyoto Protocol adopts a stricter differentiation approach that only sets quantified country-specific mitigation obligations for the parties listed in its Annex B,[381] which is favourable for developing countries.[382] Many Annex B parties were strongly opposed to continuing the strict differentiation approach in the negotiations of their commitments for the second commitment period by arguing that the strict and static allocation of responsibility does not reflect the increased capability of some developing countries.[383]

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[376] The principle of CBDR is 'an answer to the voices demanding fairer rules to international environmental cooperation': see Honkonen (n 374) 69; Pauw et al, 'Different Perspectives on Differentiated Responsibilities' (n 372) 6.

[377] See above Part I(D)(1) of this chapter.

[378] *UNFCCC* (n 1) preambular recital 3.

[379] Annex I countries are the OECD countries or the countries in the process of transition to a market economy. The countries that are not Annex I countries are considered as non-Annex I countries. Ibid Annex I.

[380] Ibid arts 3, 4(2), 4(3), 4(7) and 12.

[381] *Kyoto Protocol* (n 27) art 3 and annex B.

[382] A strict and enforceable regime can effectively bind the most powerful countries: see Shyam Saran, 'Irresistible Forces and Immovable Objects: A Debate on Contemporary Climate Politics' (2010) 10(6) *Climate Policy* 681.

[383] 'Canada Pulls out of Kyoto Protocol', *The Guardian* (Web Page, 13 December 2011) <https://www.theguardian.com/environment/2011/dec/13/canada-pulls-out-kyoto-protocol>; 'Russia Supports Canada's Withdrawal from Kyoto Protocol – Russia's Foreign Ministry Has Reaffirmed That it Will Not Take on New Commitments', *The Guardian* (Web Page, 16 December 2011) <https://www.theguardian.com/environment/2011/dec/16/russia-canada-kyoto-protocol>. The Kyoto Protocol is even criticised as a failure, 'no longer an appropriate basis for moving forward in the longer term': see Kayla Clark,

The parameters of the principle of CBDR have achieved a significant evolution in the Paris Agreement, which shifts the strict differentiation approach to a context-based self-differentiation approach, bringing all its party countries into a voluntary but universal responsibility system, no matter whether they are developed or developing countries. The principle of CBDR in the Paris Agreement adds a new qualification 'in the light of different national circumstances',[384] which endows the principle of CBDR a contextual element, and enables a comprehensive analysis of the fairness of responsibility allocation based on a wide range of factors in a broad context.[385]

The Paris Agreement has put both developed and developing countries on equal footing by defining the responsibilities of individual countries through an 'intended nationally determined contribution' ('INDC').[386] INDC is essentially a contribution rather than a commitment, which is commonly used in an international treaty.[387] Thus, the principle of CBDR in the Paris Agreement establishes a self-differentiation approach that grants developed countries considerable freedom to determine the contents of their INDCs, and gives developed countries excessive space to interpret their obligations. Although the Paris Agreement creatively establishes a global stocktake mechanism to promote its parties to enhance their actions and ambition over time,[388] it still considers the implementation of INDCs from a facilitative and nationally determined perspective.[389] The self-differentiation approach is an obvious win for developed countries;[390] however, it may be considered unfair for developing countries that expect developed countries to take the lead in the global response to climate change.[391] When developed countries deliberately level down their actions and ambitions on climate change, the

'The Paris Agreement: Its Role in International Law and American Jurisprudence' (2018) 8(2) *Notre Dame Journal of International & Comparative Law* 109.

[384] *Paris Agreement* (n 3) art 2(2). This qualification arises from a compromise between the US and China: see 'US-China Joint Announcement on Climate Change', *The White House* (Web Page, 12 November 2014) <https://obamawhitehouse.archives.gov/the-press-office/2014/11/11/us-china-joint-announcement-climate-change> para 2.

[385] This is regarded as a 'contextualising fairness': see Nicholas Chan, 'Climate Contributions and the Paris Agreement: Fairness and Equity in a Bottom-Up Architecture' (2016) 30(3) *Ethics & International Affairs* 297.

[386] *Paris Agreement* (n 3) art 3.

[387] Lavanya Rajamani, 'Negotiating the 2015 Climate Agreement: Issues Relating to Legal Form and Nature' (Research Paper No 28, Mitigation Action Plans & Scenarios, 2015) 26.

[388] The parties to the Paris Agreement are required to conduct the first global stocktake in 2023, and every five years thereafter: see *Paris Agreement* (n 3) art 14.

[389] Ibid art 14 (3).

[390] Dimitrov argues that the Paris Agreement is a complete victory for the US: see Dimitrov (n 272) 7–8; Tørstad and Sælen (n 165) 652.

[391] Okereke argues that this reflects a 'common but shifted responsibility' instead of a 'common but differentiated responsibility': see Chukwumerije Okereke, 'The Road to Paris—Can we Navigate the Potholes to a Global Deal in December?!', *Walker Institute Blog* (Web Page, 19 June 2015) <https://blogs.reading.ac.uk/walker-institute-climate-news/2015/06/19/the-road-to-paris-can-we-navigate-the-pot-holesto-a-global-deal-in-december/>.

long-term temperature goals established in the Paris Agreement will be at risk.[392] It is reported that the existing collective international commitments on mitigation have shown limited ambitions.[393] If the long-term temperature goals are not met, the poorest countries will suffer the worst impacts of climate change.[394]

In summary, international climate change negotiations have seen a transformation of the principle of CBDR from a strictly bifurcated differentiation approach established in the Kyoto Protocol to a context-based self-differentiation approach adopted in the Paris Agreement. The context-based differentiation approach considers a wide array of contextual criteria applicable to all countries rather than a narrow set of quantified standards only applicable to certain developed countries. This weakens the normative requirements of the principle of CBDR to developed countries that should be responsible for their historical emissions, and decreases the weight of the factors of historically accumulated emissions and per capita emissions in the fairness of responsibility allocation. The self-differentiation approach allows developed countries to discretionally determine the ambitions of their commitments as they deem appropriate, which will consequently undermine the ambitions of the global response to climate change, and will leave the most vulnerable and least developed countries ('LDCs') in an unfair position. Thus, with the evolution of international climate change negotiations, the fairness quality of international climate change law as reflected in the Paris Agreement has not been developed accordingly.

B *Determinacy and Stringency: Shifting from the Top-down Approach to the Bottom-up Approach*

Determinacy and stringency, as important normative qualities of international climate change law, are fundamentally influenced by the legal architecture of international agreements in designing responsibility allocation.[395] The Kyoto Protocol adopts the top-down approach to set quantified mitigation targets and timetable for the parties listed in its Annex B,[396] exerting determinate and stringent normative forces towards these parties. However, it comes at the cost

[392] According to a study conducted by Pauw et al, the existing INDCs of developed countries are inconsistent with their obligations of support: see Pieter Pauw, Kennedy Mbeva and Harro van Asselt, 'Subtle Differentiation of Countries' Responsibilities under the Paris Agreement' (2019) 5(86) *Palgrave Communications* 5.
[393] Joeri Rogelj et al, *'The Emissions Gap' in Emissions Gap Report 2019* (UN Environment Program, November 2019) 27.
[394] Andrew D King and Luke J Harrington, 'The Inequality of Climate Change from 1.5 to 2°C of Global Warming' (2018) 45(10) *Geophysical Research Letters* 5030–33.
[395] William Hare et al, 'The Architecture of the Global Climate Regime: A Top-Down Perspective' (2010) 10(6) *Climate Policy* 600.
[396] *Kyoto Protocol* (n 27) art 3(1) and annex B.

of wide participation of the countries that appear to be dissatisfied with the responsibility allocation established in the Kyoto Protocol.[397]

To promote a wider participation, the Paris Agreement adopts the bottom-up approach, which allows individual countries to decide the contents of their INDCs.[398] According to the Paris Agreement, each party 'shall prepare, communicate and maintain' its INDCs,[399] and each party's successive INDCs 'will' reflect the 'highest possible ambition' over time.[400] This seemingly suggests that the submission and communication of INDCs is a precise and stringent obligation for each party. However, the contents of INDCs, such as the type, timing and coverage of commitments, are still subject to the voluntary contributions of individual countries.[401] The implementation of INDCs, according to the Paris Agreement, is an 'obligation of conduct' rather than an 'obligation of result'.[402] Therefore, individual countries still have ample space or 'margin of sovereign discretion' to determine the contents of INDCs,[403] and the INDC system of the Paris Agreement is substantially voluntarist.[404]

By adopting the bottom-up approach, the Paris Agreement has successfully achieved almost universal participation from individual countries.[405] However, the determinacy and stringency of responsibility allocation in the Paris Agreement are largely compromised during this

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[397] The US has always been one of the major opponents of the top-down approach: see Hare et al (n 395) 609; Steinar Andresen, 'International Climate Negotiations: Top-Down, Bottom-Up or a Combination?' (2015) 50(1) *The International Spectator: Italian Journal of International Affairs* 20.

[398] The bottom-up approach enables individual countries to 'account for differences in domestic circumstances', and thereby attracts wide participation from individual countries: see Brilé Anderson, Thomas Bernauer and Stefano Balietti, 'Effects of Fairness Principles on Willingness to Pay for Climate Change Mitigation' (2017) 142(3) *Climatic Change* 448; Sharaban Tahura Zaman, 'The "Bottom-Up Pledge and Review" Approach of Nationally Determined Contributions (NDCs) in the Paris Agreement: A Historical Breakthrough or a Setback in New Climate Governance?' (2018) 5(2) *IALS Student Law Review* 3.

[399] *Paris Agreement* (n 3) art 4(2).

[400] Ibid art 4(3). The auxiliary word 'will' signals a strong expectation that each party will undertake ambitious actions over time: see Lavanya Rajamani, 'Ambition and Differentiation in the 2015 Paris Agreement: Interpretive Possibilities and Underlying Politics' (2016) 65(2) *International and Comparative Law Quarterly* 498 ('Ambition and Differentiation in the 2015 Paris Agreement').

[401] Daniel Bodansky, 'The Paris Climate Agreement: A New Hope?' (2016) 110(2) *American Journal of International Law* 304.

[402] The obligation of individual countries in relation to INDCs is not an 'obligation of result', which requires an 'endeavour' towards a specified result that has been committed, but an 'obligation of conduct', which only requires a specified performance conducted in good faith: see Rajamani and Bodansky (n 274) 1034; Benoit Mayer, 'International Law Obligations Arising in Relation to Nationally Determined Contributions' (2018) 7(2) *Transnational Environmental Law* 259 ('International Law Obligations').

[403] Christina Voigt, 'The Paris Agreement: What is the Standard of Conduct for Parties?' (2016) (26) *Questions of International Law* 19.

[404] Zahar, *Climate Change Finance* (n 316) 120.

[405] There were 189 parties that had ratified the Paris Agreement when this thesis was written: see UNFCCC, 'Paris Agreement—Status of Ratification' (Web Page) <https://unfccc.int/process/the-paris-agreement/status-of-ratification>.

process.[406] Many provisions of the Paris Agreement have no precise subject targets, although they are phrased in mandatory terms,[407] and many vague and aspirational words such as 'aim to', 'pursuing efforts', 'would' and 'as soon as possible' are used in the relevant provisions.[408] This lack of specific subject targets and the abundance of vague language make the provisions of the Paris Agreement less determinate and less stringent.[409]

The limited level of determinacy and stringency in the Paris Agreement is mainly because it is a framework treaty,[410] which only lays out the general objectives and principles of international climate change law, and leaves the technical and operational rules of the Paris Agreement to the following rounds of international climate change negotiations. The Paris Rulebook adopted at COP24 responds to many important operational issues, which the Paris Agreement provides little clarification of information.[411] For instance, the Paris Rulebook provides the guidelines and procedures of the preparation, reporting and review of the progress of the implementation of INDCs, and significantly moves forward other issues relating to INDCs, including operation and use of public registry,[412] common time frames,[413] and forums on the impacts of the implementation of response measures.[414] However, the accounting rules on INDCs provided in the Paris Rulebook are still not comprehensive and clarified enough to prevent multiple interpretations.[415] The Paris Rulebook only decides whether and when common time frames should be applied, but the length of the common time frames remains unclear.[416] There is no comparability between INDCs due to the shortage of a standardised start and end date of time

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[406] The Paris Agreement has no imperative language, substantive provisions, prescriptive legal rules and effective implementation mechanisms: see Sandra Cassotta, 'The Paris Agreement in Logic of Multi-Regulatory Governance: A Step Forward to a New Concept of "Global Progressive Adaptive-Mitigation"?' (2016) 25(6) *European Energy and Environmental Law Review* 196; Mayer, 'International Law Obligations' (n 402) 251–75.

[407] *Paris Agreement* (n 3) arts 4(5), 4(12), 6(3), 6(5), 7(12), 7(13).

[408] Ibid arts 2, 4(1).

[409] If a treaty provision has specific subjects, such as 'each Party', rather than collective subjects, such as 'all Parties', 'developed countries' or 'developing countries', the provision will leave less space for multiple interpretations: see Bodansky, 'The Legal Character of the Paris Agreement' (n 30) 147.

[410] UNFCCC, 'The Paris Agreement' (Web Page) <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>.

[411] David Waskow et al, 'COP24 Climate Change Package Brings Paris Agreement to Life', *World Resources Institute* (Web Page, 21 December 2018) <https://www.wri.org/blog/2018/12/cop24-climate-change-package-brings-paris-agreement-life>.

[412] *Modalities and Procedures for the Operation and Use of a Public Registry Referred to in Article 4, Paragraph 12, of the Paris Agreement*, Decision 5/CMA.1, FCCC/PA/CMA/2018/3/Add.1 (19 March 2019).

[413] *Common Time Frames for Nationally Determined Contributions Referred to in Article 4, Paragraph 10, of the Paris Agreement*, Decision 6/CMA.1, FCCC/PA/CMA/2018/3/Add.1 (19 March 2019).

[414] *Modalities, Work Programme and Functions under the Paris Agreement of the Forum on the Impact of the Implementation of Response Measures*, Decision 7/CMA.1, FCCC/PA/CMA/2018/3/Add.1 (19 March 2019).

[415] Waskow et al (n 411).

[416] Its parties agreed to apply common time frames to their INDCs from 2031 onwards: see *Common Time Frames for Nationally Determined Contributions Referred to in Article 4, Paragraph 10, of the Paris Agreement* (n 413) para 2.

frames.[417] Therefore, the adoption of the Paris Rulebook has significantly promoted the determinacy and stringency of international climate change law. However, it has not changed the facilitative and nationally determined nature of INDCs established in the Paris Agreement. As correctly concluded by Rajamani and Bodansky, there is still a deliberate balance between the autonomy of individual countries and the determinacy of the Paris Rulebook in sharing responsibility.[418]

The Paris Agreement establishes a committee to facilitate the implementation of its provisions.[419] Yet, the committee is 'expert-based and facilitative in nature and function in a manner that is transparent, non-adversarial and non-punitive'.[420] The Paris Rulebook further highlights that the committee neither functions as an enforcement or dispute settlement mechanism nor imposes penalties or sanctions.[421] The appropriate measures that the committee shall take do not contain any punitive or forcible measures.[422] Therefore, the implementation and compliance mechanism under the Paris Agreement and its Rulebook only plays a facilitative role in the promotion of cooperation and trust building among its party countries.[423] Considering that the implementation and compliance procedures can only be initiated under a limited number of circumstances, the normative forces of the implementation and compliance mechanism established in the Paris Agreement and its Rulebook are largely restricted, and individual countries still have large discretion to implement or comply with the provisions of the Paris Agreement.[424]

In summary, the legal architecture of international climate change law has witnessed a transition from the top-down approach established in the Kyoto Protocol to the bottom-up approach adopted in the Paris Agreement, and the determinacy and stringency of international climate

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[417] Therefore, an INDC submitted in 2025 would have an end date in 2035 or 2040: see World Resources Institute, 'Navigating the Paris Agreement Rulebook' (Web Page) <https://www.wri.org/paris-rulebook>.
[418] Rajamani and Bodansky (n 274) 1024–5, 1027.
[419] *Paris Agreement* (n 3) art 15(1).
[420] Ibid art 15(2).
[421] *Modalities and Procedures for the Effective Operation of the Committee Referred to in Article 15, Paragraph 2, of the Paris Agreement*, Decision 20/CMA.1, FCCC/PA/CMA/2018/3/Add.2, (19 March 2019) annex para 4 ('*Modalities and Procedures for the Effective Operation of the Committee'*).
[422] Ibid annex para 30. These measures include engagement in dialogue, assisting party countries to identify possible challenges and solutions, making recommendations or issuing findings of facts.
[423] Eliza Northrop and Sebastian Oberthür, 'The Mechanism to Facilitate Implementation and Promote Compliance with the Paris Agreement: Design Options' (Working Paper, World Resources Institute, April 2018); Harro van Asselt, Romain Weikmans and J Timmons Roberts, 'Pocket Guide to Transparency under the UNFCCC' (Research Report, European Capacity Building Initiative, June 2019) 43.
[424] In accordance with the Paris Rulebook, the implementation and compliance procedures can only be initiated under three limited circumstances: (a) a country requests assistance from the committee, (b) a country fails to submit a required document under the Paris Agreement, or (c) a country does not participate in processes established by the transparency framework of the Paris Agreement: see *Modalities and Procedures for the Effective Operation of the Committee* (n 421) annex para 22 (a).

change law in allocating responsibility are largely weakened during this process. The Paris Rulebook has significantly enhanced the determinacy and stringency of international climate change law by formulating the guidelines, procedures and modalities of the principles and mechanisms of the Paris Agreement. However, the facilitative nature of INDCs is still maintained and there are still many notable gaps that limit international climate change law from playing a determinate normative role in the UN climate regime. International climate change law without adequate determinacy and stringency may not only give some countries leeway to bypass their commitments, but also restricts the enhancement of ambitions to achieve the long-term temperature goals in response to climate change.

C *Transparency: Shifting from a Strict Differentiation Approach to a Nuanced Differentiation Approach*

The transparency framework serves to report and review the implementation of commitments by individual countries and to examine whether individual countries are on track to meet the long-term temperature goals established in international agreements. A lack of transparency may lead to the information and data provided by individual countries being incomplete or incomparable,[425] and limits the effectiveness of the transparency requirements of international climate change law.[426] In contrast, a well-established transparency framework builds the confidence of individual countries towards the credibility of international climate change law.[427] The transparency of international climate change law has experienced a transformation from a strict differentiation approach, which sets bifurcated transparency requirements for developed and developing countries, to a nuanced differentiation approach, which establishes common transparency requirements for all countries and allows flexibility for certain developing countries with capability restraint.

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[425] Asselt, Weikmans and Roberts (n 423) 43; W P Pauw et al, 'Beyond Headline Mitigation Numbers: We Need More Transparent and Comparable NDCs to Achieve the Paris Agreement on Climate Change' (2018) 147(1–2) *Climatic Change* 23–9 ('Beyond Headline Mitigation Numbers').

[426] Asselt, Weikmans and Roberts (n 423) 44.

[427] On the role of transparency in influencing the behaviours of individual countries, see Brunnée and Hey (n 200) 39; Gregory Briner and Sara Moarif, 'Enhancing Transparency of Climate Change Mitigation under the Paris Agreement: Lessons from Experience' (Group Paper No 2016(4), OECD, October 2016) 26; Harald Winkler, Brian Mantlana and Thapelo Letete, 'Transparency of Action and Support in the Paris Agreement' (2017) 17(7) *Climate Policy* 853–72. Transparency improves mutual trust among individual countries: see Alexander Zahar, 'Monitoring, Reporting, and Verification of Greenhouse Gas Emissions in China' in Alexander Zahar, Hao Zhang and Xiangbai He (eds), Climate Change Law in China in Global Context (Taylor & Francis Group 2020) 121 ('Monitoring, Reporting, and Verification').

1 *The Bifurcated Transparency Requirements in the UNFCCC and Kyoto Protocol*

There was a 'hard separation' between Annex I and non-Annex I parties regarding transparency requirements.[428] The transparency frameworks of the UNFCCC and Kyoto Protocol make different requirements for Annex I and non-Annex I parties in terms of both national communications and GHG inventories: (a) the national communications submitted by Annex I parties are subjected to regular in-depth reviews, whereas the national communications submitted by non-Annex I parties are not subjected to any review.[429] (b) Annex I parties are required to submit GHG inventory reports on an annual basis and are encouraged to follow the IPCC's 2006 Guidelines for National Greenhouse Gas Inventories (2006 IPCC Guidelines) when preparing their national inventories, whereas non-Annex I parties do not need to do so.[430] Thus, the transparency frameworks of the UNFCCC and Kyoto Protocol acknowledge the substantial differentiation of transparency requirements between Annex I and non-Annex I parties.[431]

The identity-based transparency framework started to change in the Cancun Agreements in which developed countries agreed to enhance the reporting of their actions on support and capacity-building with common formats and, in return, developing countries agreed to strengthen the reporting on their mitigation actions.[432] In accordance with the Cancun Agreements, both developed and developing countries are symmetrically required to report national communications, GHG inventories and biennial update reports.[433] This marks a gradual convergence of transparency requirements for both developed and developing countries, which have finally broken the 'firewall' between developed and developing countries in applying transparency requirements.[434]

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[428] Zahar, 'Monitoring, Reporting, and Verification' (n 427) 126.
[429] *UNFCCC* (n 1) art 12; *Kyoto Protocol* (n 27) arts 7–8.
[430] See generally Asselt, Weikmans and Roberts (n 423) 3–6.
[431] On the different transparency requirements applicable to Annex I parties and non-Annex I parties, see *Guidelines for the Preparation of National Communications by Parties Included in Annex I to the Convention, Part I: UNFCCC Reporting Guidelines on Annual Inventories,* Decision 3/CP.5, FCCC/CP/1999/6/Add.1 (17 January 2000); *Guidelines for the Preparation of National Communications by Parties Included in Annex I to the Convention, Part II: UNFCCC Reporting Guidelines on National Communications*, Decision 4/CP.5, FCCC/CP/1999/6/Add.1 (17 January 2000); *Guidelines for the Preparation of National Communications by Parties not included in Annex I to the Convention,* Decision 17/CP.8, FCCC/CP/2002/7/Add.2 (1 November 2002).
[432] *The Cancun Agreements* (n 295) paras 40–2.
[433] Ibid para 60.
[434] Daniel Bodansky, 'The Copenhagen Climate Change Conference: A Postmortem' (2010) 104(2) *American Journal of International Law* 240.

2 *Common Transparency Requirements with a Nuanced Differentiation in the Paris Agreement*

(a) Common Transparency Requirements

The Paris Agreement sets out an enhanced transparency framework that substantially increases transparency requirements over both developed and developing countries.[435] Pursuant to the Paris Agreement, each party, regardless of whether it is a developed or developing country, shall provide GHG inventory reports biennially or annually,[436] and must regularly provide necessary information to track the progress of the implementation of its INDCs;[437] the information submitted by both developed and developing countries shall undergo a technical expert review process;[438] and developed countries shall report information on support that they have provided to developing countries, and developing countries should report information on support that they need and have received.[439]

Because INDC is essentially voluntary, the enhanced transparency framework of the Paris Agreement, to a large extent, helps clarify INDCs and makes them transparent and understandable. All countries are held accountable by adding mandatory components.[440] Thus, the enhanced transparency framework of the Paris Agreement contains the majority of 'hard obligations' of the Paris Agreement, representing a new height of the development of the transparency of international climate change law.[441]

The Paris Rulebook, formulating the modalities, procedures and guidelines for the enhanced transparency framework of the Paris Agreement ('MPGs'),[442] has further strengthened the

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[435] According to Article 4(2) of the Paris Agreement, developing countries are required to prepare, communicate and maintain successive INDCs, and to pursue domestic mitigation measures to achieve their INDCs: see *Paris Agreement* (n 3) art 4(2). Meanwhile, the Paris Agreement enhances the transparency requirements over developed countries' actions on adaptation, support and capacity-building: see *Paris Agreement* (n 3) arts 9(5), 13(9), 13(10).

[436] According to the accompanying decision of COP21, all countries are required to provide GHG inventories annually, while least developed and small island states shall submit GHG inventories biennially: see *Adoption of the Paris Agreement* (n 323) para 90.

[437] *Paris Agreement* (n 3) art 13(7). On the information to be provided by countries, see *Identification of the Information to be provided by Parties in Accordance with Article 9, Paragraph 5, of the Paris Agreement*, Decision 12/CMA.1, FCCC/PA/CMA/2018/3/Add.1 (19 March 2019) annex ('*Identification of the Information to be provided')*; *Modalities, Procedures and Guidelines for the Transparency Framework for Action and Support Referred to in Article 13 of the Paris Agreement*, Decision 18/CMA.1, FCCC/PA/CMA/2018/3/Add.2 (19 March 2019) paras 118–29 (*'Modalities, Procedures and Guidelines for the Transparency Framework')*.

[438] *Paris Agreement* (n 3) arts 13(11)–(13).

[439] Ibid arts 13(9)–(10).

[440] Winkler, Mantlana and Letete (n 427) 853–72; Rajamani and Bodansky (n 274) 1029.

[441] Rajamani, 'The 2015 Paris Agreement' (n 192) 352; Jennifer Allan et al, 'From Bali to Marrakech: A Decade of International Climate Negotiations, As told by the Earth Negotiations Bulletin' (Research Report, International Institute for Sustainable Development, October 2017) 84.

[442] Modalities, procedures and guidelines for the transparency framework for action and support referred to in Article 13 of the Paris Agreement (Decision 18 of CMA1.3), known as the MPGs, account for the majority of the

common transparency requirements for the reporting processes of both developing and developed countries.[443] The Paris Rulebook unifies the reporting format of national GHG inventories and information necessary to track the progress of implementing and achieving INDCs for both developed and developing countries.[444] In addition, the Paris Rulebook requires all party countries to use the 2006 IPCC Guidelines to prepare national GHG inventories,[445] and to use the same metrics to report aggregate emissions and removals of GHGs.[446] Furthermore, the Paris Rulebook strengthens the methodologies of information reporting of financial support through three separate channels (i.e. bilateral channel, multilateral channel and public intervention), and by adopting new concepts and methods, such as grant-equivalent value, to avoid double counting.[447] The unification of the methodologies in GHG inventories and metrics is helpful for party countries, technical experts and the UNFCCC Secretariat to undertake information reporting and review without unnecessary workload and double counting.[448]

(b) Nuanced Differentiation with Limited Flexibility

The enhanced transparency framework of the Paris Agreement and its Rulebook only give the developing countries 'that need it in the light of their capacities' flexibility to deviate from the common transparency requirements.[449] Although it is up to individual countries themselves to self-determine whether they need flexibility or not, and when to apply such flexibility, the countries choosing to do so need to justify why they require flexibility and provide self-determined 'time frames to improvements in relation to those capacity constraints'.[450] This is

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Paris Rulebook. The MPGs will be followed by 31 December 2024 in the biennial transparency reports and national inventory reports of the party countries of the Paris Rulebook: see *Modalities, Procedures and Guidelines for the Transparency Framework* (n 437) para 3. The MPGs will supersede the reporting arrangements of the Cancun Agreements but coexists with the reporting requirements of the UNFCCC: see *Adoption of the Paris Agreement* (n 323) para 98; *Preparations for the Implementation of the Paris Agreement and the First Session of the Conference of the Parties Serving as the Meeting of the Parties to the Paris Agreement*, Decision 1/CP.24, FCCC/CP/2018/10/Add.1 (19 March 2019) paras 39–46.

[443] An exception applies to the LDCs and SIDSs, which may submit the information at their discretion: see *Modalities, Procedures and Guidelines for the Transparency Framework* (n 437) paras 10–11.

[444] Ibid.

[445] Ibid para 20. All parties are required to use the 2006 IPCC Guidelines for National Greenhouse Gas Inventories and are encouraged to use the 2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands.

[446] Ibid para 37.

[447] Ibid paras 123–5.

[448] 王田 [Wang Tian], 董亮 [Dong Liang] and 高翔 [Gao Xiang], 《<巴黎协定>强化透明度体系的建立与实施展望》[Establishment and Implementation Prospects of the Enhanced Transparency System under the Paris Agreement] (2019) 15(6) 气候变化研究进展 *Climate Change Research* 689.

[449] *Paris Agreement* (n 3) arts 13(2)–(3). The Paris Agreement uses the term 'enhanced' to establish a middle ground between the 'common' and 'differentiated' nature of the transparency framework of the Paris Agreement: see Winkler, Mantlana and Letete (n 427) 853–72; Wang and Gao (n 195) 254.

[450] *Modalities, Procedures and Guidelines for the Transparency Framework* (n 437) para 6.

different from the UNFCCC and Kyoto Protocol that assume that all developing countries have capacity constraints and overlook the development of some developing countries' national circumstances and capacity-building.[451]

In addition, flexibility can only be applied in a limited number of circumstances with restricted extent: (a) In terms of GHG inventory gases, developed countries are required to report all seven gases, whereas those developing countries that need flexibility are required to report at least three gases (CO_2, CH_4 and N_2O), and to report any of the other four gases on certain conditions.[452] (b) Regarding time series, all party countries are required to report consistently starting from 1990, whereas those developing countries that need flexibility do not need to report information that is collected in such an early and extensive period.[453] (c) In regard to reported information on policies and measures, developed countries are required to provide the 'estimates of expected and achieved GHG emission reductions' because of their actions, policies and measures, whereas developing countries that need flexibility are encouraged to report such information in the light of their capacities.[454] (d) With regard to support, developed countries are mandatorily required to submit information on support, whereas developing countries are required to provide information on support that are needed and received on a non-mandatory basis.[455]

The application of the Paris Rulebook may result in a regression of transparency requirements applicable to developed countries, compared with the transparency arrangements of the UNFCCC and Cancun Agreements. As argued by Mayer, the transparency requirements of the Paris Rulebook that are applicable to developed countries have not been enhanced due to the reduced transparency arrangements in reporting on long-term trends in GHG emission reduction, the available justifications for using rudimentary methods to estimate GHG sources and removals in key categories, and the facilitative and less stringent processes of technical review.[456] In addition, according to the Paris Rulebook, the status of the developing countries

[451] As argued by Rajamani and Bodansky, 'as national circumstances change and capacity constraints are addressed, flexibilities are no longer needed': see Rajamani and Bodansky (n 274) 1036.
[452] It is on the conditions that other gases are included in the country's INDC, covered by an activity under voluntary cooperation, or previously reported: see *Modalities, Procedures and Guidelines for the Transparency Framework* (n 437) para 48.
[453] Ibid para 57. The developing countries that need flexibility in the light of their capacities need to 'report data covering, at a minimum, the reference year/period for its NDC under Article 4 of the Paris Agreement and, in addition, a consistent annual time series from at least 2020 onwards'.
[454] Ibid annex para 85.
[455] Ibid annex para 10(d)–(e).
[456] Benoit Mayer, 'Transparency under the Paris Rulebook: Is the Transparency Framework Truly Enhanced?' (2019) 9(1–2) *Climate Law* 40–64.

that need flexibility in the light of their capacities is self-determined,[457] and the self-determination of the status of developing countries is exempted from any external evaluation.[458] This lack of objective criteria or external evaluations may lead the status of those developing countries that need flexibility in the light of their capacities to be misused by some individual countries to evade their responsibilities of reporting and review.

Overall, the Paris Agreement and its Rulebook have abandoned the bifurcated transparency requirements set for developed and developing countries separately, but have adopted common reporting requirements for all countries, while allowing flexibility for developing countries with capacity constraints. The enhanced transparency framework of the Paris Agreement and its Rulebook have primarily promoted the transparency of international climate change law by increasing transparency requirements over some developing countries, while exempting certain developing countries with capacity constraints from the common transparency requirements to aggrandise the fairness of responsibility allocation. However, the Paris Rulebook has to some extent reduced the transparency requirements for developed countries, and the self-determination of the status of the developing countries that need flexibility in the light of their capacities may cause loopholes for some countries to evade their responsibilities. In brief, development and inadequacy coexist in the transparency framework of the Paris Agreement and its Rulebook: while generally levelling up transparency requirements over some developing countries, large interpretation space or discretion is left to individual countries to decide what and how to report the relevant information, actions and measures on climate change.

D *Inclusiveness: Moving Towards a Universal Participation with a Restricted Degree of Determinacy and Stringency*

Inclusiveness reflects the democratic aspect of international climate change governance, and any limitation of participation in international climate change negotiations will significantly

[457] There are no established criteria to distinguish between developing and developed countries in the UN climate regime, and whether a country is a developing country or not is subject to the declaration of the country itself: see UN Statistics Division, 'Developing Regions' (Web Page) <https://unstats.un.org/unsd/methodology/m49/>. The World Bank has considered the two-category distinction of developing and developed countries as outdated, and no longer made this distinction in its data analysis: see Neil Fantom, Tariq Khokhar and Edie Purdie, 'The 2016 Edition of World Development Indicators is out: Three Features you Won't Want to Miss', *World Bank Blog* (Web Page, 15 April 2016) <http://blogs.worldbank.org/opendata/2016-edition-world-development-indicators-out-three-features-you-won-t-want-miss>. Likewise, the WTO also does not make clear the definitions of developed and developing countries. It is subject to its members themselves to announce whether they are developed or developing countries: see World Trade Organization, 'Who are the Developing Countries in the WTO?' (Web Page) <https://www.wto.org/english/tratop_e/devel_e/d1who_e.htm>.

[458] *Modalities, Procedures and Guidelines for the Transparency Framework* (n 437) para 6.

undermine the legitimacy of negotiation outcomes and processes.[459] The enhancement of the inclusiveness of international climate change law will prevent hegemonic powers from dominating international lawmaking, and thereby add more legitimate weight to its normativity.[460] As suggested by Ziganshina, the inclusiveness of international law relates to the scope of actors that participate in and meaningfully influence international lawmaking and the scope of issues under negotiation.[461] Thus, the inclusiveness of international climate change law is concerned with which actors are actively involved in international climate change negotiations, whether they interact with each other in a meaningful fashion and the scope of issues dealt with in the negotiations.

1 *An Uneasy Road Towards a Universal Participation*

As mentioned above, the Kyoto Protocol establishes a categorised differentiation approach that imposes quantified mitigation tasks and a timetable for the parties listed in its Annex B, while excluding non-Annex B parties from taking mitigation responsibilities.[462] Although it has a high level of determinacy and stringency in allocating mitigation obligations to Annex B parties, this approach received strong oppositions from some Annex B parties due to the shortage of participation from non-Annex B parties in responsibility sharing.[463]

After the Kyoto Protocol entered into force in 2005, to avoid a commitment gap between the first and second commitment periods,[464] COP11 established the AWG-KP to negotiate the commitments of Annex I countries in the second commitment period ('Kyoto track').[465] Meanwhile, to re-engage the US and promote the participation of developing countries, the Bali Action Plan further set out a new negotiation track ('Bali track') to undertake negotiations under

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[459] Transparency and inclusiveness are significant for the success of international climate change negotiations: see Kai Monheim, *Conducting Global Climate Change Negotiations: Harnessing the Power of Process* (Policy Brief No 2, Centre for International Governance Innovation, May 2015).

[460] Christian Guillermet Fernández and David Fernández Puyana, 'The Principles of Transparency and Inclusiveness as Pillars of Global Governance: The BRICS Approach to the United Nations' (2015) II(2) *BRICS Law Journal* 7–24.

[461] Ziganshina (n 101) 44.

[462] *Kyoto Protocol* (n 27) art 3(1), annexes A and B.

[463] For instance, the US rejected the Kyoto Protocol in 2001 because the Bush regime viewed that it did not embrace major developing countries, such as China and India, into the responsibility framework of the Kyoto Protocol. In the view of the US, the Kyoto Protocol exempted '80 per cent of the world, including major population centres such as China and India, from compliance': see 'Text of a Letter from the President to Senators Hagel, Helms, Craig, and Roberts', *The White Houses, Office of the Press Secretary* (Web Page, 13 March 2001) <https://georgewbush-whitehouse.archives.gov/news/releases/2001/03/20010314.html>.

[464] *Kyoto Protocol* (n 27) art 3(9).

[465] *Consideration of Commitments for Subsequent Periods for Parties Included in Annex I to the Convention under Article 3, Paragraph 9, of the Kyoto Protocol*, Decision 1/CMP.1, FCCC/KP/CMP/2005/8/Add.1 (30 March 2006).

the UNFCCC for non-parties to the Kyoto Protocol.[466] This is a significant breakthrough in the development of the inclusiveness of international climate change law by changing the categorised paradigm of Annex I and non-Annex I countries in the allocation of responsibilities.[467]

However, both the Bali track and Kyoto track met significant difficulties in the Durban Conference due to opposition from developed countries to proceed with negotiations for the second commitment period.[468] Some developed countries, such as the US, Japan, Russia and Canada, led the Durban Conference to adopt the Durban Platform, under which a new negotiation track ('Durban track') led by the Ad Hoc Working Group on the Durban Platform for Enhanced Action ('ADP') was created.[469] The Durban track laid the foundations for a universal responsibility framework applicable to both developed and developing countries, and it ultimately overshadowed the Bali track and Kyoto track.[470]

The Doha Conference finally closed the Bali and Kyoto tracks by terminating the work of the AWG-KP and Ad Hoc Working Group on Long-Term Cooperative Action ('AWG-LCA'), and started the operation of the ADP negotiation track ('ADP track').[471] Under the ADP track, the 'firewall' between developed and developing countries regarding GHG emission mitigation tasks was dismantled, a 'firm timetable to adopt a universal climate agreement by 2015' was established, and a path to raise pre-2020 ambition for the second commitment period to the Kyoto Protocol was determined.[472] Nevertheless, the pre-2020 commitments of developed countries have been slow to emerge due to the lack of political willingness from developed countries.[473] Since the Doha Amendment has not yet entered into force owing to an insufficient number of ratifications, the pre-2020 emission reduction targets of developed countries are still

[466] The Ad Hoc Working Group on Long-Term Cooperative Action (AWG-LCA) was established to negotiate the mitigation tasks undertaken by both developing and developed countries: see *Bali Action Plan* (n 311) para 2.
[467] The decision of the AWG-LCA started to use the terms of developed and developing countries, rather than Annex I and non-Annex I parties: see *Bali Action Plan* (n 311). See also Allan et al (n 441) 10.
[468] United Nations Development Programme (UNDP), *The Bali Road Map: Key Issues under Negotiation* (UNDP Environment & Energy Group, 2008) 29; Scott L Kastner, Margaret M Pearson and Chad Rector, *China's Strategic Multilateralism: Investing in Global Governance* (Cambridge University Press, 2018) 205–6.
[469] *Establishment of an Ad Hoc Working Group on the Durban Platform for Enhanced Action*, Decision 1/CP.17, FCCC/CP/2011/9/Add.1 (15 March 2012).
[470] The Durban Platform called for the negotiations of an instrument 'applicable to all Parties' no matter whether they are developing or developed countries *Establishment of an Ad Hoc Working Group on the Durban Platform for Enhanced Action* (n 457) para 2. See also Kastner, Pearson and Rector (n 468) 205–6; Bodansky, Brunnée and Rajamani (n 16) 219.
[471] Allan et al (n 441) 53.
[472] Ibid 52.
[473] Bodansky and Rajamani (n 262) 43.

not formally binding on them.[474]

The ADP track gained a fruitful outcome in the Paris Conference by concluding the Paris Agreement, which is designed to promote the broad participation of individual countries with the 'very general nature' or a 'low level of commitment'.[475] The Paris Agreement has finally brought almost all countries into a common responsibility framework;[476] however, this has been achieved at the cost of the determinacy and stringency of international climate change law. After COP21, international climate change negotiations were undertaken under the negotiation track of the Ad Hoc Working Group on the Paris Agreement ('APA track') to make clear the extensive issues of the Paris Agreement for its operationalisation in 2020.[477] With the adoption of the Paris Rulebook, the technical and procedural rules of the Paris Agreement have been generally laid out,[478] which significantly promotes the determinacy, stringency and transparency of international climate change law. However, the facilitative and nationally determined nature of INDCs is still maintained, and many important issues regarding the operational rules of the Paris Agreement are still unresolved. Therefore, the achievement of the inclusiveness of international climate change law is an uneasy road, depending on the continuous, meaningful participation of various groups of self-serving countries.

2 *Enlarged Scope of Negotiation Issues with Varied Priority and Progress*

The Paris Agreement has dealt with a broad scope of negotiation issues in principle,[479] and the negotiations of the operational rules of the core subject matters of the Paris Agreement made significant breakthroughs at COP24 and COP25.[480] However, priorities have been given to different negotiation issues due to varied capabilities and efforts of negotiation groups that advocate for these negotiation issues.[481] Many important negotiation issues are currently still

[474] As of 16 June 2020, 140 Parties have deposited their instrument of acceptance, and there are still four more ratifications needed: see UNFCCC, 'The Doha Amendment' (Web Page) <https://unfccc.int/process/the-kyoto-protocol/the-doha-amendment>.
[475] Bodansky, Brunnée and Rajamani (n 16) 61.
[476] UNFCCC (n 395).
[477] The APA was established to prepare for the entry into force of the Paris Agreement and for the convening of the first session of the CMA: see *Adoption of the Paris Agreement* (n 323) para 8.
[478] *Modalities, Procedures and Guidelines for the Transparency Framework* (n 437).
[479] *Paris Agreement* (n 3).
[480] Waskow et al (n 411); Jocelyn Timperley, 'Cop25: What was Achieved and where to Next?', *Climate Home News* (Web Page, 16 December 2019) <https://www.climatechangenews.com/2019/12/16/cop25-achieved-next/>.
[481] Henrik et al have introduced various negotiation groups and their negotiation priorities: see Henrik, Judith and Klaus (n 263) table 3; Simon Evans and Josh Gabbatiss, 'COP25: Key Outcomes Agreed at the UN Climate Talks in Madrid', *Carbon Brief* (Web Page, 15 December 2019) <https://www.carbonbrief.org/cop25-key-outcomes-agreed-at-the-un-climate-talks-in-madrid>.

unresolved. For instance, the operational rules of art 6 of the Paris Agreement,[482] as the last remaining piece or 'glaring gap' of the Paris Rulebook,[483] are still not resolved owing to the lack of a solid consensus on many technical issues among different groups of countries.[484] In addition, adaptation has been consistently deemphasised in international climate change negotiations owing to the persistence of developed countries in rejecting the relevance of adaptation at the international level. For instance, at COP24, many developing countries demanded the inclusion of adaptation in INDCs, whereas some developed countries argued that INDCs should focus on mitigation.[485] At COP25, many developed countries sought to interpret their obligations narrowly focusing on mitigation for the post-2020 period, which is in stark contrast to the broader interpretation of developing countries covering mitigation, adaptation and capacity-building for the periods both before and after 2020.[486]

The Paris Agreement generally establishes an adaptation communication mechanism,[487] and incorporates it into the global stocktake, through which its party countries' adaptation actions are periodically reviewed.[488] The Paris Rulebook strengthens the procedural arrangements for adaptation communication by identifying a non-binding list of elements of adaptation communication.[489] Yet, according to the Paris Rulebook, adaptation communication is 'country-driven and flexible', the 'choice of communication or document' is discretionary, and the submission of communications is neither used for country comparisons nor subject to any review.[490] This leaves adaptation communication under the discretion of individual countries and restricts the effects of international climate change law regarding adaptation

[482] Article 6 of the Paris Agreement relates to international carbon market mechanisms. It provides two international carbon markets: (a) cooperative approaches (CAs), which allow individual countries to make bilateral agreements to trade carbon units, and (b) sustainable development mechanism (SDM), which creates a centralised governance system for individual countries and private sectors to trade emission reduction: see *Paris Agreement* (n 3) arts 6(2) and (4).

[483] Dario Brescia, 'Transition Pathways for the Clean Development Mechanism under Article 6 of the Paris Agreement. Options and Implications for International Negotiators' (Research Report, Perspectives Climate Group, 14 June 2019) 35.

[484] Waskow et al (n 411); Evans and Gabbatiss (n 481).

[485] Wolfgang Obergassel et al, 'Paris Agreement: Ships Moves out of the Drydock - An Assessment of COP24 in Katowice' (Research Report, Wuppertal Institut, February 2019) 10.

[486] Evans and Gabbatiss (n 481).

[487] Adaptation communication serves to provide information on adaptation actions and plans: see Obergassel et al (n 485) 10.

[488] *Paris Agreement* (n 3) arts 7(10)–(14).

[489] *Further Guidance in Relation to the Adaptation Communication, including, Inter Alia, as a Component of Nationally Determined Contributions, Referred to in Article 7, Paragraphs 10 and 11, of the Paris Agreement*, Decision 9/CMA.1, FCCC/PA/CMA/2018/3/Add.1 (19 March 2019) annex ('*Further Guidance')*.

[490] Ibid para 2.

communication.[491]

3 *Limited Role of Non-State Actors in the Formal Negotiation Processes*

Non-state actors[492] play an active role in enhancing public awareness, setting technical standards, advocating state actors to upgrade their ambitions, and monitoring the implementation of commitments.[493] The Paris Agreement recognises the active role of various non-state actors in promoting 'public awareness, public participation, and public access to information and cooperation' on climate change,[494] and its accompanying COP decision further elaborates the role of 'non-Party stakeholders' in technical examination processes of mitigation.[495] However, the role of non-state actors is still limited during the negotiation and implementation of the Paris Agreement.[496] Non-state actors can only participate in international climate change negotiations by acting as observers of COPs,[497] and international agreements are usually negotiated and adopted by state actors on a one-country-one-vote basis.[498] Thus, non-state actors have little leverage to directly influence the negotiations of the Paris Agreement. In the implementation of the Paris Agreement, the role of non-state actors is also limited due to the lack of specific and clear procedural rules for them to engage in the implementation processes.[499] The Paris Rulebook elaborates the ways of enhancing the implementation of public participation and public access to information by calling for the consideration of the key roles that a broad range of non-state actors can play.[500] However, the role of non-state actors remains limited in the formal processes of international climate change

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[491] It is up to every country to decide how to report on progress achieved and the gaps remaining: see Obergassel et al (n 485) 11.

[492] Non-state actors include environmental non-government organisations, activist groups, intergovernmental organisations, city networks, consultancy and legal firms, indigenous communities, trade unions, women's groups, youth organisations, religious communities, and so on: see Karin Bäckstrand et al, 'Non-State Actors in Global Climate Governance: From Copenhagen to Paris and Beyond' (2017) 26(4) *Environmental Politics* 564.

[493] Bodansky, Brunnée and Rajamani (n 16) 59; Hey and Fourie (n 281) 255; Harro van Asselt, 'The Role of Non-State Actors in Reviewing Ambition, Implementation, and Compliance under the Paris Agreement' (2016) 6(1-2) *Climate Law* 93.

[494] *Paris Agreement* (n 3) preambular recital 14–15.

[495] *Adoption of the Paris Agreement* (n 323) para 109.

[496] Asselt (n 493) 107.

[497] *UNFCCC* (n 1) art 7(6). Until COP23 in 2017, the UNFCCC had admitted 2,259 observer organisations: see UNFCCC, 'Statistics on Admission' (Web Page) <https://unfccc.int/process-and-meetings/parties-non-party-stakeholders/non-party-stakeholders/statistics-on-non-party-stakeholders/statistics-on-admission>.

[498] Yves Petit, 'COP21: What it is and Why it Matters', *The Conversation* (Web Page, 5 November 2015) <https://theconversation.com/cop21-what-it-is-and-why-it-matters-50104>.

[499] Non-state actors only act as 'technical experts' in the review and stocktake assessment process: see Asselt (n 493) 91–108.

[500] *Ways of Enhancing the Implementation of Education, Training, Public Awareness, Public Participation and Public Access to Information so as to Enhance Actions under the Paris Agreement*, Decision 17/CMA.1, FCCC/CP/2018/L.23 (14 December 2018).

negotiations.[501]

To conclude, inclusiveness is critical for the normative role of international climate change law. The inclusiveness of international climate change law was greatly enhanced by the Paris Agreement, which brings a broad range of state actors and non-state actors together to negotiate a wide range of issues regarding international climate change cooperation. However, the Paris Agreement fails to simultaneously obtain a high level of inclusiveness and other normative qualities, and non-state actors are restricted from participating in the formal processes of international lawmaking and implementation. Although the Paris Rulebook further clarifies many operational rules of the Paris Agreement, numerous negotiation issues are still unresolved, which limits the Paris Agreement from playing a stronger normative role in the allocation of responsibilities among individual countries. Therefore, the inclusiveness of international climate change law is currently still at a low level, without generating deepening commitments for the wide participants of the Paris Agreement.

E *Coherence: Inter-regime Interactions Remain at a Low Level*

According to the categorisation of coherence proposed by Ziganshina, the coherence of international law can be understood from both horizontal and vertical perspectives.[502] For the international climate change governance, horizontal coherence is concerned with the interactions of various international regimes regarding climate change, whereas vertical coherence relates to the domestic/international interactions of the normative role of international climate change law. This section focuses on the horizontal perspective of the coherence of international climate change law, while the vertical coherence of international climate change law will be investigated in detail in Chapters 4 and 5 based on the practices of China's interactions with international climate change law.

At the international level, multiple interlinked international regimes address various aspects of climate change problems, including environmental regimes in ozone layer protection,[503] biological diversity,[504] desertification control,[505] and wetland preservation,[506] as well as non-

[501] Asselt (n 493) 107.
[502] Ziganshina (n 101) 53–4.
[503] *Vienna Convention for the Protection of the Ozone Layer*, opened for signature 22 March 1985 (entered into force 22 September 1988); *Montreal Protocol on Substances that Deplete the Ozone Layer*, adopted 16 September 1987 (entered into force 1 January 1989).
[504] *Convention on Biological Diversity*, opened for signature 5 June 1992 (entered into force 29 December 1993).
[505] *United Nations Convention to Combat Desertification*, opened for signature 14 October 1994 (entered into force 26 December 1996).
[506] *Convention on Wetlands of International Importance Especially as Waterfowl Habitat*, opened for signature 2 February 1971 (entered into force 21 December 1975).

environmental regimes centred on the International Civil Aviation Organisation ('ICAO'), the International Maritime Organization ('IMO'), the World Bank, the World Trade Organization ('WTO'), the UN Human Rights Council, and so on.[507] A compatible and mutually reinforced international system on climate change might serve to coordinate actions, share resources, communicate experiences among different regimes, and promote the consistency and integration of the normative and institutional components of various climate-related regimes.[508]

The UN climate regime is widely recognised as a hub or umbrella mechanism of the international response to climate change and the main source of international climate change law.[509] It has contributed to the coherence of international climate change law by providing interaction platforms for other international organisations to play a role in shaping shared understandings of climate change and in influencing the development of international climate change law. The UNFCCC calls on COPs to cooperate with 'competent international organisations and intergovernmental and non-governmental bodies' to implement it,[510] and the Kyoto Protocol entrusts the ICAO and IMO to reduce GHG emissions not controlled by the Montreal Protocol on Substances that Deplete the Ozone Layer from aviation and marine bunker fuels.[511] Subsequently, some intergovernmental organisations and non-government organisations were invited to provide scientific consultation and expertise support in the following COPs and subsidy meetings.[512] The SBSTA leads the coordination of the UN climate regime with other regimes in terms of the exchange of information on climate change.[513] To date, the ICAO and IMO secretariats have provided research reports and information on GHG emissions from the international aviation and maritime transport sectors to the SBSTA

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[507] On the discussion of the climate-related regimes, see Robert O Keohane and David G Victor, 'The Regime Complex for Climate Change' (2011) 9(1) *Perspectives on Politics* 7–23; Kenneth W Abbott, 'The Transnational Regime Complex for Climate Change' (2011) 30(4) *Environment and Planning C: Government and Policy* 571; Frank Biermann et al, 'The Fragmentation of Global Governance Architectures: A Framework for Analysis' (2009) 9(4) *Global Environmental Politics* 14.

[508] Keohane and Victor (n 507) 7.

[509] Bodansky, Brunnée and Rajamani (n 16) 266.

[510] *UNFCCC* (n 1) art 7(2)(l).

[511] *Kyoto Protocol* (n 27) art 2(3).

[512] For instance, international organisations in other regimes had played an important part in providing scientific and technical information on ways of limiting emissions of ozone depletion substance, and in studying the relationship between ozone-layer depletion and global warming: see *Relationship between Efforts to Protect the Stratospheric Ozone Layer and Efforts to Safeguard the Global Climate System: Issues Related to Hydrofluorocarbons and Perfluorocarbons*, Decision 13/CP.4, FCCC/CP/1998/16/Add.1 (25 January 1999); *Relationship between Efforts to Protect the Stratospheric Ozone Layer and Efforts to Safeguard the Global Climate System*, Decision 17/CP.5, FCCC/CP/1999/6/Add.1 (2 February 2000); *Relationship between Efforts to Protect the Stratospheric Ozone Layer and Efforts to Safeguard the Global Climate System: Issues Relating to Hydrofluorocarbons and Perfluorocarbons*, Decision 12/CP.8, FCCC/CP/2002/7/Add.1 (28 March 2003).

[513] Cooperating with other international regimes is one of the important tasks of the SBSTA: see Daniel Blobel and Nils Meyer-Ohlendorf, 'United Nations Framework Convention on Climate Change: Handbook' (Institute for International and European Environmental Policy, 2006) 56–8.

regularly.[514] The mutual cooperation of the UN climate regime and other regimes helps to 'avoid duplication of efforts, strengthen joint efforts and use available resources more efficiently'.[515]

In addition, the objectives of other international regimes have been reflected in international climate change agreements. For instance, the objectives of the conventions on desertification control and ozone layer protection have been reflected in the UNFCCC.[516] The Paris Agreement takes note of the importance of biodiversity protection in its preamble,[517] and encourages its parties to implement and support the policies relating to the integral and sustainable management of forests.[518] Furthermore, the Paris Agreement refers to the discourses of human rights in its preamble, which requires its parties to 'respect, promote and consider their respective obligations on human rights' in terms of food security, employment, gender equality, migrants rights, the right to health, and so on.[519] It also makes specific references to the need for a gender-responsive approach and the consideration of the rights of vulnerable communities and indigenous peoples in adaptation actions.[520] The explicit references to human rights in the Paris Agreement manifest an enhancement of 'receptivity to rights concerns and discourses' in the UN climate regime.[521]

Nevertheless, the Paris Agreement reflects the discourse of human rights in its preamble, which only provides a contextual assertion rather than a concrete operational mechanism.[522] Therefore, the Paris Agreement only builds a bridge for greater cooperation between international climate change law and international human rights law.[523] In addition, the accompanying and following COPs of the Paris Agreement have advanced the reflection of the voices of indigenous communities in the UN climate regime to the degree that a cooperation platform and a facilitative working group have been established.[524] However, the cooperation

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[514] UNFCCC, 'Emissions from Fuels Used for International Aviation and Maritime Transport' (Web Page) <https://unfccc.int/topics/mitigation/workstreams/emissions-from-international-transport-bunker-fuels#eq-1>. On the interactions of the ICAO and the UN climate regime, see generally Alejandro Piera, 'Getting Global Cooperation: ICAO and Climate Change' (Occasional Paper Series No X, McGill University, July 2016).

[515] *Cooperation with Other Conventions*, Decision 13/CP.8, FCCC/CP/2002/7/Add.1 (28 March 2003).

[516] *UNFCCC* (n 1) preambular recitals 12 and 13.

[517] *Paris Agreement* (n 3) preambular recital 13.

[518] Ibid art 5(2).

[519] Ibid preambular recitals 9–11.

[520] Ibid art 7(5).

[521] Bodansky, Brunnée and Rajamani (n 16) 312.

[522] Ibid 312; Sam Adelman, 'Human Rights in the Paris Agreement: Too Little, Too Late?' (2018) 7(1) *Transnational Environmental Law* 35.

[523] Annalisa Savaresi, 'The Paris Agreement: Reflections on an International Law Odyssey' (Conference Paper, European Society of International Law 2016 Annual Conference, 31 January 2017) 11.

[524] *Adoption of the Paris Agreement* (n 323) para 135; *Local Communities and Indigenous Peoples Platform*, Decision 2/CP.24, FCCC/CP/2018/10/Add.1 (19 March 2019) para 1.

platform is essentially facilitative,[525] and the integration of human rights into international climate change law remains to be negotiated in the further interactions between the two regimes.[526]

In summary, coherence enables international climate change law to play an effective role in coordinating fragmented resources to address the climate change problems. To promote the coherence of international climate change law, the UN climate regime has played a central role in providing interaction platforms and reflecting the objectives of other regimes in international climate change law. Yet, the interactions of the UN climate regime and other climate-related regimes are still restricted at a basic level focusing on information exchange and technology collaboration, and the reflection of other regimes' objectives and components in international climate change agreements remains at the conceptual level instead of at the operational level. In the multi-layered international 'regime complex' on climate change,[527] which is full of conflicts of norms due to the different nature and characteristics of international regimes, incoherence seems to be inevitable, and the promotion of the coherence of international climate change law ultimately relies on the continuing development of shared understandings among individual countries on how to address climate change and other international problems holistically and coherently.

III A BRIEF SUMMARY

This chapter found that the status of shared understandings in the UN climate regime remains at a 'thin' layer, and the development of the normative qualities of the Paris Agreement and its Rulebook is still restricted due to individual countries' contentious understandings of the fairness of responsibility allocation in the UN climate regime.

A *Shared Understandings in the UN Climate Regime Remain at a 'Thin' Layer*

This chapter has examined the shared and contested understandings among different groups of

[525] According to the decision of COP24, the relevant activities cannot undermine the 'territorial integrity or political unity of sovereign and independent States': see *Local Communities and Indigenous Peoples Platform* (n 524) preamble.

[526] Annalisa Savaresi, 'Climate Change and Human Rights: Fragmentation, Interplay and Institutional Linkages' in Sébastien Duyck, Sébastien Jodoin and Alyssa Johl (eds), *Routledge Handbook of Human Rights and Climate Governance* (Routledge, 2018) 32.

[527] The 'regime complex' on climate change is consisted of a varied array of regulatory institution and systems: see Keohane and Victor (n 507) 7–23. The complex and decentralised architecture of international climate change governance is termed as a 'multi-level climate governance' by Bodansky et al: see Bodansky, Brunnée and Rajamani (n 16) 259–60.

countries in the UN climate regime. It was found that (a) the consensus-based UN climate regime has been established to provide a multilateral cooperation platform for the continuous interactions of individual countries on climate change; (b) the scientific certainty on anthropogenic climate change has been achieved to facilitate the global response to climate change; and (c) the core subject matters of international climate change law have been generally formed to frame the normative contents of international climate change law. However, these shared understandings remain at a 'thin' layer. To date, the role of the UN climate regime is restricted to the degree that it only provides a cooperation platform for international actors to communicate with each other on their cooperation on climate change; the scientific certainty of anthropogenic climate change does not absolutely lead to the strong political willingness of individual countries to take real actions on climate change, and the formation of the core subject matters of international climate change law is still far from the full institutionalisation of the normative contents of international climate change law.

Moreover, the allocation of responsibility has always been contested among different groups of countries. Although the normative contents of the principle of CBDR have evolved significantly in different phases of international climate change negotiations, the contentions over responsibility allocation have always been the focal point of debates among different groups of countries.[528] The contentions over the fairness of responsibility allocation largely impair the mutual trust of different groups of countries, frustrate their cooperation on climate change and affect the development of shared understandings of the normative qualities of international climate change law. The fair allocation of responsibility is a 'hard work' of international climate change law, which ultimately restricts the development of shared understandings in the UN climate regime from stepping into a 'deep' layer.[529] Due to the lack of solid shared understandings of responsibility allocation, international cooperation on climate change cannot move significantly further forward, and a stronger normative role of international climate change law is hard to be achieved.

B *A Careful Balance of the Six Normative Qualities Based on the Realities of the UN Climate Regime*

From the Kyoto Protocol to the Paris Agreement, the fairness, determinacy, stringency and

[528] Various groups of countries have different national interests and domestic preferences in response to climate change: see Anders Nordgren, 'Climate Change and National Self-Interest' (2016) 29(6) *Journal of Agricultural and Environmental Ethics* 1043–55.

[529] Only the most solid layer of shared understandings can be 'legitimate and capable of generating a sense of obligation': see Brunnée and Toope, *Legitimacy and Legality* (n 80) 177.

transparency of international climate change law in terms of responsibility allocation have witnessed a transformation from a binary differentiation approach to a context-based self-differentiation approach. This self-differentiation approach adopted in the Paris Agreement no longer highlights the identity-based responsibility allocation based on the factors of historically accumulated emissions and per capita emissions, but considers all contextual factors of fairness applicable to both developed and developing countries. As such, the normative role of the principle of CBDR in maintaining corrective and distributive fairness is largely pulled back. In addition, by relying on the self-assessment of fairness reflected in INDCs, individual countries can set the contents of INDCs by themselves. Without adequate determinacy and stringency, international climate change law may give individual countries leeway to bypass their commitments, and the ambitions of developed countries on climate change may also be reduced. This will be counterproductive to international cooperation on climate change.

The Paris Agreement and its Rulebook have significantly promoted the transparency of international climate change law by laying out a set of common transparency requirements for both developed and developing countries, while exempting the developing countries that need flexibility in the light of their capacities from the common transparency requirements. However, the enhancement of transparency requirements cannot fundamentally change the facilitative and nationally determined nature of INDCs. In addition, the Paris Rulebook reduces the transparency requirements of developed countries, and the self-determination of the status of developing countries with capacity constraint may cause loopholes for some countries to evade their responsibilities. This will restrict the effects of the transparency framework and fulfilment of the global long-term temperature goals.

In terms of the inclusiveness of international climate change law, the Paris Agreement has successfully brought a broad range of state and non-state actors together to negotiate a wide range of issues regarding international climate change cooperation. However, the wide inclusiveness of international climate change law, to a large extent, is achieved at the price of other normative qualities, and non-state actors are restricted from participating in the formal processes of international lawmaking and implementation. Thus, the inclusiveness of international climate change law is currently still far from a meaningful participation that brings all individual countries together to commit deeply to the global response to climate change. Without adequate development of other normative qualities, the values of the wide participation in the Paris Agreement are also undermined. The UN climate regime has played a central role in providing interaction platforms and reflecting the objectives of other regimes in international

climate change agreements. However, the interactions of the UN climate regime and other climate-related regimes are still limited on information exchange and technology collaboration, and the objectives and components of other climate-related regimes are only reflected in general and recommendatory terms.

Inclusiveness is not always concurrent with other normative qualities of international climate change law. An international agreement with a high level of determinacy, stringency and transparency may restrict the willingness of individual countries to accept the agreement, and the agreement is by no means effective without sufficient participation of a broad range of actors. Against the background that responsibility allocation is still contested among different groups of countries based on their national interests and domestic preferences, treaty designing should pragmatically consider the political realities of international climate change negotiations.[530] The Paris Agreement has treated inclusiveness as a priority, and left the construction of other normative qualities to the following rounds of negotiations under the APA track. The Paris Agreement carefully uses hard, soft and non-obligations, and deliberately balances between ambitions and flexibility in defining the allocation of responsibility.[531] The Paris Rulebook has enhanced the operationalisation of the key provisions of the Paris Agreement; however, it still preserves 'considerable autonomy, flexibility and discretion' for individual countries.[532] Thus, the development of the normative qualities of international climate change law is still restricted in general, and does not go far from the 'deeply discordant political context' in which the normative qualities are formulated, negotiated or traded off.[533] The 'thin' shared understandings and the underdevelopment of the normative qualities make international climate change law unreliable for determining the substantive issues relating to responsibility allocation among individual countries. Although the enhancement of transparency requirements and the wide participation of the UN climate regime may help to clarify substantive rules among a broad range of regime participants, a strong level of the normativity of international climate change law in allocating responsibility is still far from being achieved.

The perceptions and practices of individual countries are of significance for investigating how the normativity of international law is generated and developed within a community. Therefore,

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[530] The relevance of international law 'must be considered within the enabling or constraining effects of the international political setting within which it operates': see Mark Zeitoun, 'The Relevance of International Water Law to Later-Developing Upstream States' (2015) 40(7) *Water International* 954.
[531] Rajamani, 'The 2015 Paris Agreement' (n 192) 358.
[532] Rajamani and Bodansky (n 274) 1040.
[533] Rajamani, 'The 2015 Paris Agreement' (n 192) 338.

studying the perspectives of individual countries regarding the normative qualities of international climate change law in real cases will be more meaningful in the context that the solid shared understandings of responsibility allocation are still absent in the UN climate regime. The following chapters will investigate China's interactions with international climate change law, and understand how the normativity of international climate change law is accepted and developed by China based on its own domestic contexts.

CHAPTER 4 CHINA'S INTERNATIONAL POSITION ON THE NORMATIVE QUALITIES OF INTERNATIONAL CLIMATE CHANGE LAW

Given the relevance of the domestic context in which the normativity of international climate change law is created and developed in individual countries, this chapter analyses China's perceptions and receptions of the normative qualities of international climate change law based on its negotiation position. China has participated in all rounds of international climate change negotiations.[534] While persisting in certain negotiation stances and principles, China's negotiation position on whether, how and to what extent it takes responsibility on climate change has always been in an evolving process throughout the history of its participation in international climate change negotiations. Three phases mark the progressive evolution of China's negotiation position on the normative qualities of international climate change law, including (a) the early phase in the negotiations of the UNFCCC and Kyoto Protocol, (b) the transitionary phase between COP13 and COP20, and (c) the present phase in the negotiations of the Paris Agreement and its Rulebook. This chapter examines China's changed and unchanged negotiation position throughout different phases of international climate change negotiations, discusses the factors that shape or transform its negotiation position, and presents recommendations for China to promote the normative qualities of international climate change law.

I EVOLUTION OF CHINA'S NEGOTIATION POSITION

A *Fairness: Adhering to the Principle of CBDR*

The pursuit of fairness would enable China to stand on high moral ground to maintain a good international reputation,[535] and serve its national interests in avoiding taking undue responsibility in international climate change negotiations.[536] Therefore, the fairness of

[534] On China's history of participation in international climate change negotiations, see Yu Jie, 'Entering the Mainstream: An Evolution in China's Climate Diplomacy', *chinadialogue* (Web Page, 1 December 2015) <https://www.chinadialogue.net/article/show/single/en/8369-Entering-the-mainstream-anevolution-in-China-s-climate-diplomacy>.

[535] Wu, 'Sino–Indian Climate Cooperation' (n 268) 839; Zhang Haibin (n 53) 3; Philip Stalley, 'Principled Strategy: The Role of Equity Norms in China's Climate Change Diplomacy' (2013) 13(1) *Global Environmental Politics* 1–8.

[536] Fuzuo Wu, 'China's Pragmatic Tactics in International Climate Change Negotiations: Reserving Principles with Compromise' (2013) 53(4) *Asian Survey* 778–9 ('China's Pragmatic Tactics').

responsibility allocation has become one of China's principal stances, critically determining its negotiation position.

1 ***China's Fairness Discourses: The Principle of CBDR***

China treats the principle of CBDR as the foundation of its fairness discourses and maintains that the allocation of responsibilities among individual countries should manifest the bulk of GHG emissions historically contributed by developed countries, the comparatively low per capita emissions and the limited capability of developing countries. As an adherent to the principle of CBDR, China has been leading the developing-country group to vocally argue, advocate and defend the fair allocation of responsibilities between different groups of countries.

From China's perspective, the factor of historically accumulated emissions represents the 'historical debts' of developed countries generated in the build-up of GHG emissions in the atmosphere during industrialisation.[537] To push developed countries to remedy their historical emissions, China takes the view that developed countries should take more international responsibilities in every aspect of international cooperation on climate change.[538] In addition, in the view of Chinese negotiators, central to the disputes over responsibility allocation is the competition for equality in energy consumption and economic development, which directly influence the welfare of the people in individual countries.[539] To promote the equal distribution of development space on a per capita basis, the factor of per capita emissions has become an important element of China's fairness discourses in international climate change negotiations.[540] China considers that capability is crucial for developing countries to implement their obligations established in international climate change agreements.[541] Due to

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[537] 温家宝 [Wen Jiabao], 《温家宝在气候变化会议领导人会议上的讲话》 [Speech of Premier Minister Wen Jiabao at the Leaders Meeting of the Copenhagen Climate Summit] (Web Page, 19 December 2009) <http://www.gov.cn/ldhd/2009-12/19/content_1491149.htm>; 'Historical Responsibility of Developed Countries Unevadable', *Xinhua News* (Web Page, 4 May 2013) <http://www.chinadaily.com.cn/china/2013-05/04/content_16474594.htm>.

[538] 国新办 [The State Council Information Office of the People's Republic of China], 《国新办举行"巴黎归来谈气变"中外媒体见面会》[The State Council Information Office Hold a Press Conference for the Paris Conference], 国新网 [SCIO] (Web Page, 24 December 2015) <https://www.scio.gov.cn/wz/Document/1460041/1460041.htm>.

[539] 解振华 [Xie Zhenhua], 《气候会议是各国之间争夺发展权的一场较量》 [International Climate Change Negotiation is the Competition for Development Rights], 凤凰网 [Ifeng] (Web Page, 9 January 2010) <http://finance.ifeng.com/news/special/guanghualuntan/20100109/1686477.shtml>.

[540] This is also reflected in the remarks of Chinese political leaders: see Hu Jintao, 'Remarks at the Major Economies Meeting on Energy Security and Climate Change', *Consulate General of the People's Republic of China in San Francisco* (Web Page, 9 July 2008) <http://www.chinaconsulatesf.org/eng/xw/t455739.htm>.

[541] UNFCCC, 'Submission by Group of 77 and China on the 7th Meeting of the Durban Forum on Capacity-building by the Arab Republic of Egypt' (Web Page, 5 March 2018) <https://www4.unfccc.int/sites/SubmissionsStaging/Documents>.

the limited capability of developing countries, China has been adopting a position that developed countries should bear major responsibilities in mitigation, adaptation, finance and technology support, while developing countries are allowed to take responsibilities within their capability.[542]

Although its fairness discourses constantly refer to the above-mentioned factors, China has not officially proposed or accepted any precise formula for responsibility sharing in international climate change negotiations. Some scholars have discussed practical approaches to quantitatively allocate responsibility among individual countries based on the calculation of the weights of various factors from China's perspective, such as cumulative per capita emission convergence and the carbon budget proposal.[543] However, discussion of the precise formula of responsibility allocation remains at the academic level, and the Chinese government has not formally considered or discoursed a precise formula of the fairness of responsibility allocation at the policy level.[544]

2 *Evolution of China's Fairness Discourses*

China's position on the principle of CBDR is not static but has progressively evolved. As the evolution of the parameters of the principle of CBDR during different phases of international climate change negotiations, China has also correspondently adjusted its position on the principle of CBDR from a hard-line 'non-commitment' position to a position accepting the common responsibility system under an enhanced transparency framework applicable to all countries.

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[542] The discourses that attempt to impose responsibility on China beyond its capability are seen as a trap to restrain China's development: see Katherine Morton, 'China and Global Climate Policy Making: Leadership in a State of Flux' in Huang Xiaoming and Robert G Patman (eds), *China and the International System: Becoming a World Power* (Routledge, 2013) 174.

[543] Karl Hallding, Guoyi Han and Marie Olsson, 'A Balancing Act: China's Role in Climate Change' (Research Paper, Regeringskansliet, 2009) 96–8; Project Team of the Development Research Centre of the State Council People's Republic of China, 'Greenhouse Gas Emissions Reduction: A Theoretical Framework and Global Solution' in Ross Garnaut, Ligang Song and Wing Thye Woo (eds), *China's New Place in a World in Crisis: Economic, Geopolitical and Environmental Dimensions* (Australian National University Press, 2009) 389–408; Pan and Chen (n 354) 5–34.

[544] The main reason is still the lack of political consensus on the fairness of responsibility allocation at the international level: see Project Team of the Development Research Centre of the State Council People's Republic of China (n 543) 405. Ding challenged the fairness of seven major proposals for carbon emission reduction: see 丁仲礼 [Ding Zhongli] et al,《国际温室气体减排方案评估及中国长期排放权讨论》[On the Major Proposals for Carbon Emission Reduction and some Related Issues] (2009) 39(12) 中国科学(D 辑:地球科学) *Science in China (Series D: Earth Sciences)* 1659–71. However, the allocation of the finite amount of cumulative CO_2 emissions is meaningful and possible after the Paris Agreement set the collective goals of GHG emission reduction. See also Renaud Gignac and H Damon Matthews, 'Allocating a 2 °C Cumulative Carbon Budget to Countries' (2015) 10 *Environmental Research Letter* 1.

(a) Early Phase: A Hard-Line 'Non-Commitment' Position

During the early phase of international climate change negotiations, the development of the economy to meet the increasing needs of its large population was an overriding priority for China.[545] Economic development played a vital role in maintaining the social stability and political legitimacy of the Chinese government,[546] and anything that might undermine this development objective was viewed with 'intense suspicion' as external meddling over its state sovereignty.[547] To avoid drawing international attention to its own responsibilities, China took a hard-line 'non-commitment' position to defend the strict division between developed and developing countries, and regarded the principle of CBDR as the prerequisite for developing countries to take climate action.[548] Therefore, China rejected any proposals that attempted to set substantial legally binding responsibilities for developing countries, including voluntary commitments, during this phase.[549] It is even noted that China was unwilling to sign any climate change deal if there was no differentiation in all areas of climate change governance.[550]

With the collective efforts of China and other developing countries, the UNFCCC and Kyoto Protocol took into account the fairness concerns of developing countries.[551] The UNFCCC adopts the concepts of historical and per capita GHG emissions.[552] The Kyoto Protocol only requires developed countries to reduce their overall emissions of six GHGs 'by at least 5 per cent below 1990 levels in the commitment period 2008 to 2012'.[553] The transparency

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[545] Yu, 'Rethinking the Influences of International Regimes on China' (n 86) 13.

[546] Ida Bjørkum, 'China in the International Politics of Climate Change: A Foreign Policy Analysis' (Research Report, Fridtjof Nansen Institute, December 2005) 9.

[547] It is argued that 'there is nothing extravagant about China's desire to develop': see Hallding, Han and Olsson (n 543) 81. China treated transparency framework as external meddling over its state sovereignty: see Björn Conrad, 'China in Copenhagen: Reconciling the "Beijing Climate Revolution" and the "Copenhagen Climate Obstinacy"' (2012) 210 *The China Quarterly* 451.

[548] For instance, the core elements of China's position in the negotiations of the FCCC were: (a) adherence to the principle of CBDR, (b) the emphasis of state sovereignty, (c) the consideration of per capita emissions of developing countries, and (d) developed countries' leading role in supplying the necessary financial and technological support to developing countries: see National Climate Change Coordination Group (NCCCG), 《关于气候变化的国际公约》条款草案（中国的建议）》 [China's Recommendations for the Drafting of the United Nations Climate Change Convention] in 《国务院环境保护委员会文件汇编（二）》 [Compilation of the Documents of the State Council Environmental Protection Committee (2)] (中国环境科学出版社[China Environmental Science Press], 1995) 263–79.

[549] China's negotiation position during this phase was seen as 'conservative', 'defensive', 'uncooperative' and 'unconstructive': see Bjørkum (n 546) 26–7.

[550] John Vidal, 'Suzanne Goldenberg and Lenore Taylor: How the Historic Paris Deal over Climate Change was Finally Agreed', *The Guardian* (Web Page, 13 December 2015) <https://www.theguardian.com/environment/2015/dec/13/climate-change-deal-agreed-paris>.

[551] Due to the strong opposition of China and India, a draft provision that might lead to the voluntary commitments of developing countries was deleted at the last minute of negotiations of the Kyoto Protocol: see Wu, 'Sino–Indian Climate Cooperation' (n 268) 832.

[552] *UNFCCC* (n 1) preambular recital 3.

[553] *Kyoto Protocol* (n 27) art 3(1) and annex B. See also *UNFCCC* (n 1) art 4.

requirements of the UNFCCC and Kyoto Protocol mainly apply to Annex I countries, and the national communications and GHG inventory reports submitted by developing countries are not subjected to any external review process.[554] Given their compatibility with China's own interests, China has been upholding the normative role of the UNFCCC and Kyoto Protocol during the following rounds of international climate change negotiations.[555]

(b) Transitionary Phase: Making Voluntary Commitments

The 'non-commitment' position of China was gradually levelled down due to external pressure. For instance, the EU argued that emerging economies such as China must make 'appropriate' voluntary contributions to meet the global GHG emission reduction target.[556] In response to the external pressure, China agreed to take voluntary commitments, namely Nationally Appropriate Mitigation Actions ('NAMAs'),[557] and agreed to negotiate mitigation actions under an external supervisory mechanism at COP13.[558] However, it still maintained that developed countries shall make quantified mitigation commitments in a measurable, reportable and verifiable fashion (to reduce their 2020 gross GHG emissions by at least 40% compared with the level in 1990), while developing countries should take NAMAs in the context of sustainable development and considering their special needs for development and poverty eradication.[559]

In 2007, China published its first national policy on climate change, namely China's National Climate Change Program ('CNCCP'), in which a goal of cutting 20% of energy consumption per unit GDP by 2010 was set.[560] Prior to the Copenhagen Conference, China announced a voluntary but unconditional commitment to cut its carbon emissions per unit of GDP by 40%–

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[554] *UNFCCC* (n 1) art 12; *Kyoto Protocol* (n 27) arts 7–8.

[555] China signed the UNFCCC in June 1992 and ratified it in January 1993: see UNFCCC, 'Ratification Status' (Web Page) <http://unfccc.int/tools_xml/country_CN.html>. After five years, China signed the Kyoto Protocol in May 1998 and ratified it in August 2002: see UNFCCC, 'UNFCCC Process' (Web Page) <https://unfccc.int/node/180417>.

[556] The EU highlighted that 'although industrialized countries should play a leading role in reducing their emissions by 25–40% by 2020 and by a total of 80–95% by 2050, developing countries except the poorest ones should also reduce the increase in their emissions by 15–30% below business-as-usual scenarios': see Wu, 'China's Pragmatic Tactics' (n 536) 834.

[557] As part of the agreed outcome in the Bali Action Plan, developing countries agreed to take NAMAs in the context of sustainable development: see *Bali Action Plan* (n 311) para 1(b).

[558] At COP13, China agreed to negotiate the measurable, reportable and verifiable mitigation commitments of developing countries on the condition that developed countries' obligations on finance, technology support and capacity-building were also established: see 'Summary of COP13' (2007) 12(354) *Earth Negotiations Bulletin* 15–6; Michael Grubb, 'The Bali COP: Plus ça Change' (2008) 8(1) *Climate Policy* 3–6.

[559] China argued that its special needs for 'development and the eradication of poverty' should be considered: see NDRC, 'Implementation of the Bali Roadmap: China's Position on the Copenhagen Climate Change Conference' (Web Page, 20 May 2009) http://www.china-un.ch/eng/bjzl/t564324.htm ('Implementation of the Bali Roadmap').

[560] NDRC, 'National Climate Change Program' (5 June 2007) 26.

45% compared with the level of 2005, and to increase the contribution of non-fossil energy to 15% of the energy mix by 2020.[561] This announcement represented the first step of China moving from a 'non-commitment' position towards a voluntary commitment with quantified mitigation targets and timetable.[562]

At the Copenhagen Conference, several developed countries attempted to push for establishing an independent measurement, reporting and verification ('MRV') mechanism on the voluntary commitments of developing countries, which was strongly resisted by China and other members of the BASIC group.[563] After intensive negotiations, as a compromise, China eventually accepted a less intrusive version of MRV: it conceded to provide GHG emission data and place the implementation of its NAMAs under the scrutiny of international consultation and analysis;[564] however, it still adhered to the differentiation between developed and developing countries in terms of the frequency and content of information disclosure.[565] At COP16, China further conceded to a more enhanced and operational transparency system, as reflected in the Cancun Agreements, in which both developed and developing countries are required to report national communications, GHG inventories and biennial update reports; however, flexibility is provided to developing countries regarding the content and frequency of reporting. For instance, developing countries are allowed to submit their national communications every four years, and to submit biennial update reports and GHG inventories on a biennial basis.[566]

Although China conceded to take voluntary mitigation commitments under the less strict transparency requirements, the pursuit of a fair deal was the focal point of China's negotiation stance, and the principle of CBDR was repeatedly emphasised by Chinese delegations during this phase.[567] It is, inter alia, worth noting that the draft agreement texts ('Danish Text') that

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[561] 'China Announces Targets on Carbon Emission Cuts', *Xinhua* (Web Page, 26 November 2009) <http://www.gov.cn/english/2009-11/26/content_1474008.htm>. In 2010, China submitted its national voluntary mitigation actions to the UNFCCC Secretariat: see NDRC, 'Cancun Pledge Pre-2020 Target' (n 40).

[562] David Held, Eva-Maria Nag and Charlies Roger, 'The Governance of Climate Change in China: Preliminary Report' (Working Paper No WP 01/2011, LSE-AFD Climate Governance Programme, January 2011) 41; Gao Xiaosheng, 'China's Evolving Image in International Climate Negotiation: From Copenhagen to Paris' (2018) 4(2) *China Quarterly of International Strategic Studies* 213–39.

[563] Wu, 'Sino–Indian Climate Cooperation' (n 268) 836. The BASIC group was formed by Brazil, South Africa, India and China to coordinate their common position in the lead-up to the Copenhagen Conference on 28 November 2009.

[564] *Copenhagen Accord* (n 292) para 5.

[565] Zhang Chun, 'What is China's Position at Paris Climate Talks?', *chinadialogue* (Web Page, 30 November 2015) <https://www.chinadialogue.net/article/show/single/en/8356-What-is-China-s-position-at-Paris-climate-talks->; Asselt, Weikmans and Roberts (n 423) 12.

[566] *The Cancun Agreements* (n 295) para 60.

[567] 《中国代表团团长国家计委副主任刘江于 2001 年在气候变化公约第七次缔约方会议上的发言》[Speech of the Chinese Delegation Head at COP7 of UNFCCC], 中国气候变化信息网 [China Climate Change Info-Net] (Web Page, 18 July 2002) <http://www.ccchina.org.cn/Detail.aspx?newsId=28203&TId=61>; 《中国

were leaked at the Copenhagen Conference, invoked an intensive discussion in China regarding the fair allocation of responsibilities between developed and developing countries.[568] The Danish Text allowed developed countries to emit 2.67 tonnes of carbon per person by 2025, but restricted developing countries from emitting more than 1.44 tonnes.[569] From China's perspective, every person enjoys an equal share of environmental space,[570] and the per capita emissions distributed in the Danish Text are unfair to developing countries.[571] This unfair allocation of responsibilities between developed and developing countries eroded the mutual trust between the two groups of countries. Some Chinese climate change sceptics took the Danish Text as a vivid example to prove the correctness of the climate change conspiracy discourses, which depict climate change as a Western plot to undermine the development space

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代表团团长王金祥在气候变化公约第十一次缔约方会议暨<京都议定书>第一次缔约方会议部长级会议上的发言》[Speech of the Head of the Chinese Delegation to COP11/CMP1], 中国气候变化信息网 [China Climate Change Info-Net] (Web Page, 12 December 2005) <http://www.ccchina.org.cn/Detail.aspx?newsId=28165&TId=61>; 温家宝 [Wen Jiabao] (n 537); UNFCCC, 'Speech at the High Level Segment of COP16 & CMP6 Delivered by Vice-Chairman Xie Zhenhua' (Web Page, 8 December 2010) <https://unfccc.int/files/meetings/cop_16/statements/application/pdf/101208_cop16_hls_china.pdf>;《中国代表团团长、国家发展改革委副主任解振华出席德班气候大会高级别会议并发表致辞》[Speech of Xie Zhenhua at the High Level Segment of the Durban Climate Conference], 中国气候变化信息网 [China Climate Change Info-Net] (Web Page, 14 December 2011) <http://www.ccchina.org.cn/Detail.aspx?newsId=15939&TId=57>; NDRC,《中国代表基础四国在联合国气候变化框架公约第 18 次缔约方会议上的发言》[Statement by China on Behalf of Brazil, India, South Africa and China at COP 18] (Web Page, 26 November 2012) <http://www.ndrc.gov.cn/xwzx/xwfb/201211/t20121127_515744.html>; NDRC,《中国代表团团长解振华在联合国气候变化华沙会议高级别会议上作国别发言》[Speech of Xie Zhenhua at the UN Climate Conference in Warsaw] (Web Page, 21 November 2013) <http://www.ncsc.org.cn/zt/lhgqhbhdh_hs/xwbd_865/201311/t20131120_609842.shtml>.

[568] China's position at the Copenhagen Conference was criticised as being an obstacle to achieve an ambitious climate deal by its Western counterparts: see Mark Lynas, 'How Do I Know China Wrecked the Copenhagen Deal? I Was in the Room', *The Guardian* (Web Page, 22 December 2009) <http://www.theguardian.com/environment/2009/dec/22/copenhagen-climate-change-mark-lynas>. However, the fairness of responsibility allocation between developed and developing countries was stressed by Chinese leaders and media: see Wen Jiabao, 'Build Consensus and Strengthen Cooperation to Advance the Historical Process of Combating Climate Change', *Ministry of Foreign Affairs of the People's Republic of China* (Web Page, 18 December 2009) <https://www.fmprc.gov.cn/mfa_eng/wjdt_665385/zyjh_665391/t647091.shtml>; Hu Jintao, 'President Hu Jintao's Speech on Climate Change', *New York Times* (Web Page, 23 September 2009) <https://www.nytimes.com/2009/09/23/world/asia/23hu.text.html>; William Chandler and Wang Yanjia, 'Memo to Copenhagen: Commentary is Misinformed—China's Commitment is Significant', *Carnegie Endowment for International Peace* (Web Page, 14 December 2009) <https://carnegieendowment.org/2009/12/14/memo-to-copenhagen-commentary-is-misinformed-china-s-commitment-is-significant-pub-24275>; Cao Haili, 'When China Said "No"', *chinadialogue* (Web Page, 7 January 2010) <https://www.chinadialogue.net/article/show/single/en/3449-When-China-said-no->.

[569] John Vidal, 'Copenhagen Climate Summit in Disarray after 'Danish Text' Leak', *The Guardian* (Web Page, 8 December 2009) <http://www.theguardian.com/environment/2009/dec/08/copenhagen-climate-summit-disarray-danish-text>.

[570] Li Dongxin et al, 'The Role of Environmental Justice in Sustainable Development in China' (2019) 27(1) *Sustainable Development* 162–74.

[571] Wu, 'China's Pragmatic Tactics' (n 536) 793–4.

of China.[572] For instance, a Chinese climate change denialist notes that the Danish Text results in a situation in which 'developed countries have a dinner banquet together, but bring developing countries to the table to share the bill'.[573] Although China agreed to make voluntary commitments under a less intrusive transparency framework, adherence to the fairness of responsibility allocation is an uncompromised position in international climate change negotiations.

(c) Present Phase: Accepting the Common Responsibility System

At the Paris Conference, China continued to push developed countries to make clarified mitigation commitments by 2030, but it sought to diversify the mitigation obligations of developing countries 'with support of developed countries'.[574] The Paris Agreement has responded to China's position using stronger language for the collective obligations of developed countries regarding financial support.[575] However, it adopts a nuanced differentiation approach that requires both developed and developing countries to make voluntary mitigation and adaptation commitments for the pre-2030 period,[576] through which developed countries themselves can determine their national contributions to the global response to climate change.[577]

The Paris Agreement adopts a context-based self-differentiation approach that allocates responsibility 'in the light of different national circumstances'[578] of individual countries rather than based on the factors of historically accumulated emissions and per capita emissions only applicable to certain developed countries.[579] This opens a flexible channel for China to take more responsibility on climate change than previously. China submitted its first INDC in 2015,[580] and ratified the Paris Agreement in 2016.[581] The submission of its first INDC

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[572] On the climate change conspiracy theory, see Joseph E Uscinski, Karen Douglas and Stephan Lewandowsky, 'Climate Change Conspiracy Theories', *Oxford Research Encyclopedias* (Web Page, September 2017) <https://oxfordre.com/climatescience/view/10.1093/acrefore/9780190228620.001.0001/acrefore-9780190228620-e-328>.

[573] 勾红洋 [Gou Hongyang],《低碳阴谋: 一场大国发起假环保之名的新经济战争》[Low-Carbon Plot: The Life-and-Death Battle between China and the West] (山西经济出版社 [Shanxi Economy Press], 2010) 34.

[574] NDRC, 'Enhanced Actions on Climate Change' (n 40).

[575] *Paris Agreement* (n 3) arts 9(1), 9(5), 9(7), 13(9).

[576] Ibid arts 3, 4(4), 7.

[577] Rajamani and Bodansky (n 274) 1025.

[578] *Paris Agreement* (n 3) preambular recital 3.

[579] The addendum of 'in the light of different national circumstances' was formulated by the joint announcement on climate change between China and the US in 2014: see 'US-China Joint Announcement on Climate Change' (n 384).

[580] NDRC, 'Enhanced Actions on Climate Change' (n 40) 5.

[581] China signed the Paris Agreement on 22 April 2016 and ratified it on 3 September 2016: see UNFCCC, 'Status of Ratification' (n 41). The Paris Agreement went into force in China on 4 November 2016: see Ministry of Foreign

represents a significant development of China's international commitments to the global response to climate change, and the ratification of the Paris Agreement signifies that China has formally agreed to place its international commitments on an equal footing with developed countries.[582]

However, it is not enough to conclude that China has abandoned its adherence to the principle of CBDR. Instead, China has continuously emphasised the differentiation between developed and developing countries in all elements of international climate change governance during this phase.[583] For instance, China, in its first INDC, reaffirmed its attitudes towards the principle of CBDR, and urged developed countries to fulfil their obligations in substantially reducing GHG emissions and providing support to developing countries.[584]

After the Paris Conference, China, by focusing on its 'residual rights',[585] has been promoting the principle of CBDR in the further interpretation of the operational rules and procedures of the Paris Agreement.[586] For instance, regarding the actions to fulfil the 1.5 and 2 ℃ targets,

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Affairs, 《中华人民共和国条约数据库》[International Agreement Database of the People's Republic of China] (Web Page) <http://treaty.mfa.gov.cn/Treaty/web/detail1.jsp?objid=1535341598808>.

[582] Chinese Foreign Minister Wang Yi stated that all countries should take responsibilities to act and strengthen coordination in tackling climate change: see 'China Urges Responsibility, Action, Coordination in Tackling Climate Change', *Xinhua* (Web Page, 1 December 2018) <http://www.xinhuanet.com/english/2018-12/01/c_137643217.htm>.

[583] In its 2015 annual report on addressing climate change, China maintained that the Paris Agreement should respect the differentiation between developed and developing countries regarding historical responsibilities, national circumstances, stages of development and capabilities: see NDRC, 'China's Policies and Actions for Addressing Climate Change in 2015' (November 2015). Chinese President Xin Jinping iterated China's position in the adherence to the principle of CBDR at the opening ceremony of the Paris Conference: see Xi Jinping, 'Work Together to Build a Win-Win, Equitable and Balanced Governance Mechanism on Climate Change: At the Opening Ceremony of the Paris Conference on Climate Change', *Xinhua net* (Web Page, 1 December 2015) <http://www.xinhuanet.com//world/2015-12/01/c_1117309642.htm>.

[584] NDRC, 'Enhanced Actions on Climate Change' (n 40) 15–6.

[585] 'Residual rights', according to Lv's understandings, refer to the rights of individual countries to further negotiate the procedural issues after an international climate change convention is concluded: see 吕江 [Lv Jiang], 《破解联合国气候变化谈判的困局——基于不完全契约理论的视角》 [Solution to the Dilemma of UN Climate Change Negotiations: From the Perspective of Incomplete Contract Theory] (2014) 16(4) 上海财经大学学报 *Journal of Shanghai University of Finance and Economics* 95–104.

[586] At the Marrakech Conference, China highlighted that the INDCs of individual countries should reflect differentiation in the operational sense: see generally International Institute for Sustainable Development (IISD), *Summary of the Marrakech Climate Change Conference* (Earth Negotiations Bulletin, 21 November 2016). See also UNFCCC, 'Statement of Brazil on Behalf of BASIC Countries Issued at the Opening Plenaries of COP23' (Web Page, 8 November 2017) <https://www4.unfccc.int/sites/SubmissionsStaging/Documents> 4 ('Statement of Brazil'); UNFCCC, 'Statement on Behalf of the Group of 77 and China by Ambassador Wael Aboulmagd, Chair of the G77 and China for the Climate Change Process, at the Joint Opening Plenary of the 24th Session of the COP to the UNFCCC (COP24)', *G77 Chairmanship* (Web Page, 9 December 2018) https://www4.unfccc.int/sites/SubmissionsStaging/Documents ('Statement on Behalf of the Group of the Group of 77 and China by Ambassador Wael Aboulmagd'); UNFCCC, 'China's Submission on Further Guidance for the Nationally Determined Contributions under the Paris Agreement' (Web Page, 30 September 2016) <https://www4.unfccc.int/sites/SubmissionsStaging/Documents/> part I ('China's Submission on Further Guidance').

China maintained that progression and ambition should be made in the context of differentiation: developed countries should demonstrate leadership and ambition in their INDCs, whereas the INDCs of developing countries should be diversified. In addition, developed countries shall provide support to developing countries, whereas developing countries are encouraged to voluntarily provide support to other developing countries.[587]

In summary, the principle of CBDR is the foundation of China's fairness discourse. Although the differentiation of responsibility allocation between developed and developing countries has evolved from a categorised approach towards a context-based self-differentiation approach, the pursuit of fairness and advocating for the interests of developing countries have always been the core elements of China's negotiation stance. In addition, China has given continuous effort to promote the establishment of the principle of CBDR in terms of the determinacy, stringency and transparency of international climate change law in allocating responsibility, as will be discussed below.

B *Determinacy and Stringency: Adhering to the Facilitative Nature of INDCs and Claiming for Determinate and Stringent Obligations of Support from Developed Countries*

In terms of its position on the determinacy and stringency of international climate change law, China adheres to the facilitative and nationally determined nature of INDC, and claims for determinate and stringent obligations of support from developed countries, which is a reflection of its position on the principle of CBDR in the determinacy and stringency of responsibility allocation.

1 *Adhering to the Facilitative Nature of INDC*

During the negotiations of the Paris Rulebook, China maintained that the nature of INDCs should be nationally determined, the elements of INDCs can be both quantitative and qualitative, and the interpretation of the contents of INDCs should take into consideration the national circumstances of individual countries, as shown in Table 3.[588] For China, the diverse qualitative measures of developing countries, such as energy policies, education, investments

[587] UNFCCC, 'Submission by the Arab Republic of Egypt on Behalf of the Group of 77 and China on pre-2020 Action', *G77 Chairmanship 2018* (Web Page, 5 May 2018) https://www4.unfccc.int/sites/SubmissionsStaging/Documents ('Submission by the Arab Republic of Egypt'); UNFCCC, 'China's Submission on Further Guidance' (n 586) part II.

[588] UNFCCC, 'China's Submission on Further Guidance' (n 586) part II.

and capacity-building, are as equally important as strict quantitative mitigation targets, although they are encouraged to move towards quantifiable mitigation targets over time.[589]

Table 3 China's Position on INDCs

Features	Nationally determined and adjusted; Reflecting the principles of equity and CBDR, and in the light of national circumstances; Be prepared, communicated and implemented in the context of sustainable development.
Elements	Covering mitigation, adaptation, finance, technology and capacity-building; Including all qualitative and quantitative targets, policies and measures.
Functions	Achieving the long-term goals of the UN climate regime; Promoting low-carbon and climate resilience developments; Making green financial flows and technology innovation; Other benefits resulting from the implementation of INDCs.

Source: Data retrieved from China's submissions on further guidance for INDC.[590]

China's position on the facilitative and nationally determined nature of INDCs has largely been reflected in the Paris Rulebook, in which the contents of INDCs are subject to the voluntary contributions of individual countries, and a large number of flexible components exist in the key provisions of the Rulebook.[591] The nationally determined nature of INDCs provides China with a large discretional space to adjust its domestic actions on climate change based on its domestic circumstances; however, it is also likely to lead to multiple interpretations of the contents of INDCs, thus making the assessment, aggregation and comparison of INDCs challenging.[592]

China supports the inclusion of adaptation in INDCs and the establishment of adaptation communication, by which all countries can communicate their national needs, plans and actions on climate change adaptation. [593] However, China contends that the adaptation commitments of individual countries should be flexible, avoiding the creation of additional burdens for developing countries.[594] With the efforts of China and other developing countries, the Paris Agreement sets the global goal to strengthen adaptative capacity and actions,[595] and generally provides a mechanism for communicating the implementation of adaptation actions taken by

589 Ibid.
590 Ibid.
591 UNFCCC, 'Decisions Adopted at the Climate Change Conference' (n 273).
592 Rajamani and Bodansky (n 274) 1033.
593 China supports the establishment of a registry for adaptation communications: see UNFCCC, 'China's Submission on Modalities and Procedures for the Operation and Use of the Public Registry on NDCs' (Web Page, 22 September 2017) <https://www4.unfccc.int/sites/SubmissionsStaging/Documents>.
594 UNFCCC, 'Statement on Behalf of the Group of the Group of 77 and China by Ambassador Wael Aboulmagd' (n 586); UNFCCC, 'Statement of Brazil' (n 586) 4.
595 *Paris Agreement* (n 3) arts 7(1), (2), (6).

individual countries.[596] Yet, adaptation communication is still 'country-driven and flexible'.[597] The lack of procedural arrangements for adaptation communication significantly reduces the determinacy and stringency of international climate change law regarding adaptation.

2 *Consistently Claiming for Determinate and Stringent Obligations of Support from Developed Countries*

(a) Financial Support

China has always maintained that the ambition and actions of developing countries regarding climate change are largely dependent on sufficient financial support provided by developed countries, and that developed countries shall make quantified financial support commitments and provide a concrete roadmap for achieving their financial commitments.[598] The Paris Agreement has reflected China's position by establishing an obligation for developed countries to provide financial support as they promised,[599] a roadmap to achieve the collective, quantified USD100 billion goal,[600] and a communication mechanism regarding financial support.[601]

The determinacy and stringency of the Paris Agreement in terms of financial support obligations are restricted due to the lack of specific subjects.[602] Article 9(1) of the Paris Agreement uses the term 'shall' to prescribe the financial support obligations of developed countries,[603] which may suggest that financial support is a mandatory obligation for developed countries. Yet, this obligation applies to the totality of developed countries rather than individual countries, and there are no precise standards or formula for determining which developed country should take the lead to provide financial support.[604] This leaves the requirements of financial support with no specific individual objects, and the fulfilment of financing targets are subject to the voluntary commitments of individual countries, which largely impedes the determinacy of international climate change law. In addition, the Paris

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596 Ibid arts 7(10)–(14).

597 *Further guidance* (n 489) para 2.

598 UNFCCC, 'Statement of Brazil' (n 586) 4; UNFCCC, 'Submission by the Arab Republic of Egypt' (n 587) paras 5–10; UNFCCC, 'Statement by Ambassador Nozipho Mxakato-Diseko from South Africa on Behalf of the Group of 77 and China, at the Opening Plenary of the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change (COP21)' (Web Page, 21 November 2015) <https://www4.unfccc.int/sites/submissionsstaging/Pages/Home.aspx> para 12 ('Statement by Ambassador Nozipho Mxakato-Diseko from South Africa on Behalf of the Group of 77 and China').

599 *Paris Agreement* (n 3) art 9(1).

600 *Adoption of the Paris Agreement* (n 323) para 54.

601 *Paris Agreement* (n 3) art 9(5).

602 Subject refers to the target that a treaty provision aims to address or who a treaty provision 'identifies as actors': see Rajamani, 'The 2015 Paris Agreement' (n 192) 343.

603 *Paris Agreement* (n 3) art 9(1).

604 It is called by Rajamani as 'blanket mandatory obligation': see Rajamani, 'The 2015 Paris Agreement' (n 192) 353. See also Zahar, *Climate Change Finance* (n 316) 73.

Agreement has not made clear the source, eligibility criteria and supervisory mechanism of financial support. For instance, the Paris Agreement requires developed countries to report the information on support 'provided and mobilised through public interventions',[605] but it does not quantify the percentage of funds coming from public and private sectors, and fails to determine where the funds should be spent.[606] This may lead to a self-interested interpretation of the level and sources of financial support, and thereby diminishes the effectiveness of the Paris Agreement regarding the financial support obligations.[607]

After the Paris Conference, China sought to clarify robust methodologies to track the implementation of developed countries' obligations on financial support, and to further make clear the operational rules of the Paris Agreement regarding the adequacy, eligibility criteria and sources of financial support. In terms of the adequacy of financial support, China has continuously pushed developed countries to sufficiently fulfil their financial support commitments as promised. For instance, at the 28th BASIC Ministerial Meeting on climate change, China, together with other BASIC countries, urged developed countries to ensure the quantity of financial support above the 0.7% target of Official Development Assistance to match the urgency of climate change.[608] For eligibility criteria, some developed countries attempted to unilaterally impose new eligibility criteria to restrict developing countries from accessing financial support. For instance, the US opposed the World Bank's plan to grant low-interest loans to China in 2019, although the loans were vital for the capacity-building of China in addressing climate change.[609] China openly rejected this attempt on various occasions. For instance, China expressed its concerns over the attempts to apply new eligibility criteria to developing countries' access to funding under the GEF and the GCF at COP23.[610] For China, financial support is a mandatory obligation of developed countries, rather than a charitable

[605] *Paris Agreement* (n 3) art 9(7).
[606] Ibid art 9(3).
[607] Ibid art 9(5). The Paris Agreement requires developed countries to biennially communicate information relating to financial support, but does not give precise guidance on what and how to report on financial support.
[608] Ministry of Ecology and Environment (MEE), 'Joint Statement Issued at the Conclusion of the 28th BASIC Ministerial Meeting on Climate Change' (Web Page, 16 August 2019) <http://english.mee.gov.cn/News_service/news_release/201908/t20190829_730517.shtml> para 15 ('Joint Statement Issued'). See also OECD, 'History of the 0.7% Official Development Assistance Target' (Web Page, March 2016) <https://www.oecd.org/dac/stats/ODA-history-of-the-0-7-target.pdf>.
[609] Saleha Mohsin, 'US Opposes World Bank Plan to Lend to China, Mnuchin Says', *Bloomberg* (Web Page, 6 December 2019) <https://www.bloomberg.com/news/articles/2019-12-05/u-s-opposes-world-bank-plan-to-lend-to-china-mnuchin-says-k3t330rt>.
[610] UNFCCC, 'Statement of Brazil' (n 586).

contribution donated to developing countries.[611] Restricting the eligibility of developing countries to financial support is a significant departure from the obligations of developed countries in terms of financial support established in the Paris Agreement.[612] Regarding the sources of finance, some developed countries attempted to mobilise private finance to reach the USD100 billion target agreed in the Copenhagen Accord.[613] From the perspective of China, the emergence of different sorts of private funds labelled as climate finance may undermine the role of public finance, or create difficulties in counting the actual financial support provided by developed countries.[614] Therefore, China and other developing countries have repeatedly disapproved the attempts of developed countries to play up the role of private finance.[615]

The Paris Rulebook strengthens the determinacy and stringency of international climate change law on the communication of information regarding financial support by listing the information that should be communicated,[616] and how the information will be considered once communicated.[617] For instance, the Paris Rulebook adds a new category 'subsector' to the list of information that should be reported.[618] The inclusion of a specific category will reduce the chances of some countries double counting their financial support, or masking inappropriate funding as climate finance.[619] The Paris Rulebook also launches several measures and processes, such as an online portal, synthesis reports, workshops or ministerial meetings on

[611] From China's perspective, the unilateral restriction of eligibility is likely to make financial support become 'a vehicle for increasing the indebtedness of developing countries': see MEE, 'Joint Statement Issued' (n 608) para 14.

[612] UNFCCC, 'Statement on Behalf of the Group of the Group of 77 and China by Ambassador Wael Aboulmagd' (n 586); UNFCCC, 'Statement of the Group of 77 and China Delivered by Mr Walter Schuldt, Deputy Special Representative of the Chair of the G77 and China at the Mid-term Stocktaking Session of COP23, CMP13, CMA1.4, SBI47, SBSTA47 AND APA1.4' (Web Page, 11 November 2017) <https://www4.unfccc.int/sites/SubmissionsStaging/Documents>.

[613] Department of Foreign Affairs and Trade of Australia, 'Roadmap to US$100 Billion' (Web Page, October 2016) <https://dfat.gov.au/international-relations/themes/climate-change/Documents/climate-finance-roadmap-to-us100-billion.pdf> 15; *Copenhagen Accord* (n 292) para 8.

[614] China maintains that the financial commitments of developed countries should significantly contain public components: see MEE, 'Joint Statement Issued' (n 608) para 17; MEE, 'China's Policies and Actions for Addressing Climate Change in 2019' (September 2019) 55–6.

[615] Most developing countries are suspicious of the role of private finance in the implementation of developed countries' obligation of financial support: see W Pieter Pauw, 'Not a Panacea: Private-sector Engagement in Adaptation and Adaptation Finance in Developing Countries' (2014) 15(5) *Climate Policy* 584; W Pieter Pauw, 'Mobilising Private Adaptation Finance: Developed Country Perspectives' (2017) 17 *International Environmental Agreement* 57.

[616] On the list of information, see *Modalities, Procedures and Guidelines for the Transparency Framework* (n 437) annex.

[617] *Identification of the Information to be provided* (n 437).

[618] *Modalities, Procedures and Guidelines for the Transparency Framework* (n 437) annex para 121.

[619] Thwaites and Amerasinghe view that funds for coal plants and wind farms can be labelled as 'energy' sector, but the 'subsector' category will 'make it more difficult for countries to mask fossil fuel funding as climate finance': see Thwaites and Amerasinghe (n 323).

climate finance,[620] which provide platforms or mechanisms to evaluate the adequacy of information and identify further actions required.[621]

However, the Paris Rulebook still leaves a high level of discretion for developed countries to determine their financial support. Many provisions regarding financial support in the Paris Rulebook remain discretionary, and great flexibility is left to developed countries to account for their financial support.[622] In particular, the Paris Rulebook has not resolved the questions regarding the weight of different factors or sources of finance when considering what should be counted towards financial support commitments. This has always been the focal point of political debates on climate finance in international negotiations.[623] Due to the lack of consensus and political willingness, the implementation of the current collective financial mobilisation target of USD100 billion per year by 2020 is not promising, and the actual contributions made by developed countries are far from what they pledged collectively.[624]

(b) Technology Support

China has been pushing for the establishment of precise and stringent obligations of technology support under a measurable, reportable and verifiable supervisory mechanism.[625] For instance, China maintained that developed countries shall report the information on technology development and transfer provided to developing countries in both descriptive and tabular formats to effectively track the implementation of their obligations of technology support.[626] However, the relevant provisions regarding technology support in the Paris Agreement and its Rulebook are essentially facilitative, and cannot precisely and stringently determine the specific responsibilities of developed countries in terms of technology support. The relevant provisions regarding technology support in the Paris Agreement are framed in mandatory terms, such as 'shall', seemingly imposing a stringent obligation on developed countries.[627] However, these

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620 *Identification of the Information to be provided* (n 437) paras 6–12.
621 Thwaites and Amerasinghe (n 323).
622 Ibid.
623 On the different views of various stakeholders in international climate change negotiations, see generally Paul Bodnar, Jessica Brown and Smita Nakhooda, 'What Counts: Tools to Help Define and Understand Progress towards the $100 Billion Climate Finance Commitment' (Working Paper, World Resources Institute, September 2015).
624 Obergassel et al (n 485) 17.
625 UNFCCC, 'Statement by Ambassador Nozipho Mxakato-Diseko from South Africa on Behalf of the Group of 77 and China' (n 598) para 16; UNFCCC, 'Statement on Behalf of the Group of the Group of 77 and China by Ambassador Wael Aboulmagd' (n 586).
626 UNFCCC, 'China's Submission on Modalities, Procedures and Guidelines for the Transparency Framework for Action and Support Referred to in Article 13 of the Paris Agreement' (Web Page, 17 February 2017) <https://www4.unfccc.int/sites/SubmissionsStaging/Documents> annex ('China's Submission on Modalities, Procedures and Guidelines').
627 *Paris Agreement* (n 3) arts 4(5), 7(13), 10, 13(13), 13(14).

provisions only apply to a general subject 'Parties', and do not signal a precise obligation for specific individual countries.[628] In the absence of a precise subject, the Paris Agreement does not exert a strong prescriptive force towards individual developed countries' specific obligations of technology support.

The Paris Rulebook establishes an institutional framework and operational structure for the Technology Mechanism under the operation of the TEC and the CTCN,[629] shapes a Technology Framework to provide overarching guidance for the Technology Mechanism,[630] and lays out the scope and modalities to periodically assess the effectiveness and adequacy of support provided to the Technology Mechanism.[631] However, the development of the institutional framework and operational guidelines of technology support is still in an early stage without adequate procedural arrangements, and the operation of the Technology Framework does not go beyond the facilitative nature of the obligation of technology support.[632]

Furthermore, matters concerning intellectual property rights ('IPRs') are closely relevant to technology support, and the determination of IPR protection standards influences the effectiveness of global actions on climate change.[633] However, there were intensive tensions or conflicts among various groups of countries. For instance, the US and the EU pushed for a strong protection of IPRs during the negotiations of the Paris Agreement, whereas China and other developing countries sought more flexibility when establishing IPRs.[634] Due to the lack of consensus, both the Paris Agreement and its Rulebook have not elaborated on how to deal with the role of IPRs in technology support to promote climate justice. The Paris Agreement is too general to define the relationship between IPRs and technology support, and the Paris Rulebook only identifies actions and activities which serve to remove the barriers to provide technology support, without making precise rules to address the questions relating to the role

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628 As viewed by Rajamani, this implies that no specific Party or group of Parties is tasked with support responsibilities: see Rajamani, 'The 2015 Paris Agreement' (n 192) 353.

629 The TEC is the policy arm of the Technology Mechanism, while the CTCN is the operational arm of the Technology Mechanism. On the functions, mandates and modalities of their work, see the official websites of the TEC (https://unfccc.int/ttclear/tec) and the CTCN (https://www.ctc-n.org/).

630 *Technology Framework under Article 10* (n 329) annex. See also *Paris Agreement* (n 3) art 10(4).

631 The first assessment will be initiated in late 2021: see *Scope of and Modalities for the Periodic Assessment Referred to in Paragraph 69 of Decision 1/CP.21*, Decision 16/CMA.1, FCCC/PA/CMA/2018/3/Add.2 (19 March 2019) para 3 and annex.

632 The Paris Agreement only notes the importance of technology support to progressively achieve the long-term temperature goals: *Paris Agreement* (n 3) art 10(1).

633 The application of patent flexibilities plays a significant role in the debate over the regulation of climate change: see Matthew Rimmer, 'Beyond the Paris Agreement: Intellectual Property, Innovation Policy, and Climate Justice' (2019) 8(1) *Laws* 2.

634 Ibid 4–5.

of IPR in technology support.[635] In practice, the role of IPRs is considered by the TEC on a case-by-case and sector-by-sector basis.[636] Due to the vagueness of the treaty provisions regarding technology support in the Paris Agreement and its Rulebook, it is difficult to precisely identify the obligations of individual developed countries and to assess the non-compliance of individual developed countries' commitments.

In conclusion, China adheres to the facilitative and nationally determined nature of INDC and claims for a high degree of determinacy and stringency in terms of developed countries' obligation of support. The adherence to the facilitative nature of INDC gives China large freedom to interpret the contents of its INDCs; however, it weakens the determinacy and stringency of international climate change law in allocating responsibility, and thereby, impairs the global response to climate change. China's continuous efforts to strengthen the determinacy and stringency of developed countries' obligations of support have been rewarded with a communication mechanism on financial support and a technology mechanism on technology support as established in the Paris Agreement and its Rulebook. However, the operational rules and procedures of the implementation of developed countries' obligation of support are still far from mature, and a great deal of discretion is left to developed countries. Thus, China has played a limited role in promoting the determinacy and stringency of international climate change law.

C *Transparency: Concession to the Nuanced Differentiation Approach to Transparency Requirements*

In terms of the transparency of international climate change law, China has made a great contribution by accepting the enhanced transparency framework of the Paris Agreement.[637] However, 'constructive ambiguity' widely exists in the provisions of the Paris Agreement, which undermines the clarity of its enhanced transparency framework.[638] To make the enhanced transparency framework of the Paris Agreement operational, China has played a

[635] *Technology Framework under Article 10* (n 329) annex para 12(e).
[636] Gabriel Blanco, 'Technology Transfer in UNFCCC: State of Play and Future Challenges', *International Centre for Trade and Sustainable Development* (Web Page, 9 June 2014) <https://www.ictsd.org/bridges-news/biores/news/technology-transfer-in-unfccc-state-of-play-and-future-challenges>. On the interactions of the UN climate regime and WTO in regulating intellectual property rights, see Chen Zhou, 'Can Intellectual Property Rights within Climate Technology Transfer Work for the UNFCCC and the Paris Agreement?' (2019) 19(1) *International Environmental Agreements: Politics, Law and Economics* 107–22.
[637] The term 'enhanced' was borrowed from the US-China Joint Announcement on Climate Change: see 'US-China Joint Announcement on Climate Change' (n 384).
[638] Wang and Gao (n 195) 255.

constructive role in promoting the adoption of the Paris Rulebook.[639]

During the earlier negotiation stage of the Paris Rulebook at COP24, China wanted to introduce a set of bifurcated transparency rules, while developed countries advocated a common transparency framework for all countries.[640] For instance, in its submitted opinions on the draft texts of the MPGs, China maintained a binary position on the transparency requirements between developing and developed countries in terms of disclosure of INDC information (description, progression and support measures of INDCs), accounting, reporting (scope, frequency and level of details) and review procedures.[641] In addition, China contended that the entire developing-country group, rather than the subdivided groups of developing countries, lacks the basic capability to meet high transparency requirements, and therefore, flexibility should be provided to developing countries in general.[642]

After intensive negotiations at COP24, China finally agreed to upgrade the transparency requirements of developing countries in terms of reporting information on INDC progress, methodology for GHG inventory and accounting approaches,[643] and pushed the MPGs to reflect the differentiated requirements of developing countries that need flexibility in the light of their restricted capacities in terms of the description of INDC and information about climate policies, GHG inventory sectors, gases and time series.[644] Thus, China finally made compromises to agree with the common reporting rules applicable to all countries, and to make flexibility provisions for the developing countries with limited capacities at COP24.[645]

In return for China's compromises, developed countries agreed to subject the implementation of their financial support to international communication processes,[646] and to begin to negotiate

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[639] China's role in the negotiations for the Paris Rulebook has been recognised by many analysts and media: see 史学瀛 [Shi Xueying] and 宋亚容 [Song Yarong], 《从波兰气候大会看国际气候变化法新成果》[New Outcome of the International Climate Change Law Based on Analysis of Poland Climate Conference] (2019) (2) 天津法学 *Tianjin Legal Science* 61–6; 于洋 [Yu Yang], 《中国展现应对气候变化引导力》 [China has Demonstrated its Leadership in Climate Change Resolution], *Xinhua News* (Web Page, 17 December 2018) <http://www.xinhuanet.com/world/2018-12/17/c_1210016663.htm>; Lily Hartzell, 'A Shift in Climate Strategy: China at the COP 24', *China-US Focus* (Web Page, 25 January 2019) <https://www.chinausfocus.com/energy-environment/a-shift-in-climate-strategy-china-at-the-cop-24>.

[640] Arima Jun, 'Evaluation of COP24 and Future Challenges', *Research Institute of Economy, Trade and Industry* (Web Page, 15 January 2019) <https://www.rieti.go.jp/en/columns/a01_0513.html>.

[641] UNFCCC, 'China's Submission on Modalities, Procedures and Guidelines' (n 626) annex.

[642] Ibid 2. China disagreed with subdividing developing countries into different groups at the early stage of negotiations of the Paris Rulebook.

[643] *Modalities, Procedures and Guidelines for the Transparency Framework* (n 437) paras 10, 18–20, 65–79, 85.

[644] Ibid paras 48, 57.

[645] Ibid paras 3–11.

[646] Ibid para 121; *Identification of the Information to be provided* (n 437) paras 6–12.

a new collective quantified goal using USD100 billion per year as a floor from 2025.[647] This enables the transparency requirements of the actions of developing countries and the support of developed countries to be balanced, reflecting China's long-lasting position on the fairness of international climate change law.[648]

China's contributions to the successful adoption of the Paris Rulebook at COP24 are significant for the enhancement of the transparency of international climate change law. With the compromises of China, the transparency requirements for both developed and developing countries are largely improved, while built-in flexibility is endowed to the developing countries that need flexibility in the light of their capacities. Indeed, as discussed in Chapter 3, the Paris Rulebook leaves loopholes for individual countries to avoid their responsibilities in reporting and review. Yet, accepting the common transparency requirements with a nuanced differentiation is a significant advance of China's international position regarding the transparency of international climate change law.

D *Inclusiveness: A Staunch Supporter of Multilateralism*

In terms of the inclusiveness of international climate change law, China is a staunch supporter of multilateralism.[649] China has continuously advocated multilateralism by solidly upholding the climate regime led by the UNFCCC and promoting the wide scope of negotiation issues. However, China has done little to promote non-state actors to essentially influence the making and implementation of international climate change law.

1 *Upholding the Central Role of the UN Climate Regime*

From China's perspective, the UN climate regime is the most legitimate forum and the main channel of international climate change negotiations due to its advantages in progressively building shared understandings and coordinating actions on climate change among various international actors.[650] Therefore, China maintains that international climate change

[647] *Setting a New Collective Quantified Goal on Finance in Accordance with Decision 1/CP.21, Paragraph 53* (n 323). See also generally Obergassel et al (n 485) 23.
[648] The EU made great efforts in the negotiations with China at COP24: see Sara Stefanini, 'China Open to 'Uniform' Climate Rules, Sidestepping Old Allies', *Climate Home News* (Web Page, 13 December 2018) <https://www.climatechangenews.com/2018/12/13/china-open-uniform-climate-rules-sidestepping-old-allies/>.
[649] Multilateralism is regarded by China as an effective way to constrain powerful countries from abusing their power in international lawmaking. Multilateralism is treated by China as a way to constrain the powers of developed countries: see Kong Qingjiang and Ping Xiaojuan, 'International Law and International Institutions: Implications for a Rising China' (2015) 1(2) *Chinese Journal of Global Governance* 163.
[650] MEE, 'China's Policies and Action for Addressing Climate Change in 2018' (November 2018) 43; MEE, 'China's Policies and Actions for Addressing Climate Change in 2019' (n 614) 55–6; Zhang Chun (n 565).

negotiations should be undertaken within the consensus-based multilateral UN climate regime with adequate participation of developing countries.[651]

In international climate change negotiations, several developed countries, in particular the US, attempted to replace the UN climate regime with other platforms that fall short of expectations of the principle of CBDR and the wide participation of developing countries.[652] The US sought to determine the substantive elements of international climate change law by establishing the Major Economies Forum, a platform superseding the UN climate regime and sidelining the role of developing countries in international climate change negotiations.[653] In response, China strongly opposed this trend, and rejected the proposals seeking to undermine the central role of the UN climate regime.[654] For China, any attempts to move international climate change negotiation out of the UN climate regime will lead to the erosion of the role of the UN and multilateralism, the denial of the principle of CBDR and the evasion of the responsibilities of developed countries.[655]

During the Copenhagen Conference, China supported the progression of 'dual-track' negotiations in the UN climate regime.[656] The very core of China's position at this stage was to push Annex I countries to determine their quantified emission reduction targets for the second

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[651] China was opposed to formally discussing climate change issues at the UN Security Council because of the lack of participation by other developing countries in the UN Security Council: see Wang Min, 'Statement by H E Ambassador Wang Min, Deputy Permanent Representative of the People's Republic of China to the United Nations, at Security Council's Open Debate on Maintenance of International Peace and Security: Impact of Climate Change', *Permanent Mission of the People's Republic of China to the UN* (Web Page, 20 July 2011) <http://www.china-un.org/eng/chinaandun/economicdevelopment/climatechange/t849980.htm>.

[652] William Brittlebank, 'The Durban Conference – A Two-Track Negotiation under the Bali Road Map', *Climate Action* (Web Page, 27 November 2011) <http://www.climateaction.org/climate-leader-papers/the_durban_conference_a_two_track_negotiation_under_the_bali_road_map>; 罗洁[Luo Jie], 《气候谈判话中国——外交部历任气候变化谈判代表讲述谈判历程》[Discussion of the Chinese Climate Change Negotiators on International Climate Change Negotiations], 搜狐网 [Souhu] (Web Page, 4 March 2019) <http://www.sohu.com/a/298924757_120053911>.

[653] Arthur Neslen, 'US Considers Shifting Climate Negotiations away from UN Track', *The Guardian* (Web Page, 16 November 2012) <https://www.theguardian.com/environment/2012/nov/16/us-considers-climate-negotiations-un>.

[654] 解振华 [Xie Zhenhua],《在<联合国气候变化框架公约>第十三缔约方会议暨<京都议定书>第三次缔约方会议上的讲话》 [Speech of Xie Zhenhua at COP13/CMP3], 中国气候变化信息网 [China Climate Change Info-Net] (Web Page, 12 December 2007) <http://www.ccchina.org.cn/WebSite/CCChina/UpFile/File221.pdf>; 《解振华副主任在<联合国气候变化框架公约>第十四次缔约方会议暨<京都议定书>第四次缔约方会议上的讲话》 [Xie Zhenhua's Speech at COP14/CMP4], 中国气候变化信息网 [China Climate Change Info-Net] (Web Page, 18 December 2008) <http://www.ccchina.org.cn/Detail.aspx?newsId=30096&TId=91>.

[655] Vidal (n 569); 中国气象局 [China Meteorological Administration],《气候谈判"双轨制"》['Two-Tracks' in International Climate Negotiations] (Web Page, 27 November 2015) <http://www.cma.gov.cn/2011xzt/2015zt/20151127/2015112709/201511/t20151127_298416.html>.

[656] Ministry of Internal Affair of India, 'Joint Statement Issued at the Conclusion of the Second Meeting of Ministers of BASIC Group, New Delhi' (Web Page, 25 January 2010) <https://mea.gov.in/bilateral-documents.htm?dtl/3327/Joint+Statement+issued+at+the+conclusion+of+the+Second+Meeting+of+Ministers+of+BASIC+Group>.

commitment period under the Kyoto track.[657] However, as the evolution of the UN climate regime in the following COPs in Cancun and Durban, China compromised its adherence to the 'dual-track' negotiations, and agreed to negotiate the pre-2020 commitments of developed countries under the Doha negotiation track.

As discussed in Chapter 3, the ADP track has led to the successful adoption of the Paris Agreement, which establishes obligations for the post-2020 period, but the Doha Amendment, which establishes obligations for the pre-2020 period, has still not entered into force due to its inadequate ratification.[658] To prevent developed countries from procrastinating their pre-2020 commitments, China has been working to operationalise the second commitment period of the Kyoto Protocol by pushing for developed countries' ratification of the Doha Amendment.[659] Even at COP25, China still maintained that the Conference should take stock of the pre-2020 actions and ambition in mitigation and financial support of developed countries, and prevent the responsibilities of developed countries from leaving to developing countries after 2020.[660] With the efforts of China and other countries, COP25 decided to hold a round table to discuss the implementation and ambition of pre-2020 commitments, which will be reported at COP26 in 2021.[661] For China, the effective implementation of developed countries' responsibilities before and after 2020 is crucial for the achievement of a balanced and comprehensive outcome in international climate change negotiations.[662]

2 *Promoting the Wide Scope of Negotiation Issues*

China supports the wide scope of negotiation issues. In contrast to the overemphasis on mitigation of some developed countries, China insists on giving equal priorities to mitigation, adaptation and support in international climate change negotiations.[663] Some developed countries have attempted to interpret the contents of INDC as 'mitigation-centric'.[664] China

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[657] China maintained that the Kyoto Protocol is a 'long living' treaty and, therefore, it should not be rewritten in the Copenhagen Conference: see NDRC, 'Implementation of the Bali Roadmap' (n 559).
[658] See above Part II(D)(1) of Chapter 3.
[659] China maintains that the pre-2020 actions of developed countries under the ADP should be timely fulfilled to ensure that no undue burden will overflow to developing countries during the post-2020 period: see UNFCCC, 'Submission by the Arab Republic of Egypt' (n 587) paras 5–10; MEE, 'Joint Statement Issued' (n 608).
[660] MEE, 'China's Policies and Actions for Addressing Climate Change in 2019' (n 614) 55–6.
[661] *Chile Madrid Time for Action*, Draft decision -/CP.25, FCCC/CP/2019/L.10 (15 December 2019) paras 19, 21. The report will be reviewed by focusing on progress towards meeting the 2 ℃ target rather than the global stocktake under the Paris Agreement: see Timperley (n 480).
[662] China has been pushing developed countries to provide adequate and predictable means to fulfil their climate goals: see MEE, 'Joint Statement Issued' (n 608).
[663] NDRC, 'Implementation of the Bali Roadmap' (n 559); UNFCCC, 'Statement on Behalf of the Group of the Group of 77 and China by Ambassador Wael Aboulmagd' (n 586); UNFCCC, 'Statement of Brazil' (n 586) 4.
[664] Allan et al (n 441) 72–6.

cautioned against this approach, and strongly supported the inclusion of adaptation in the INDCs of individual countries.[665] From China's perspective, adaptation is more real and urgent for developing countries, and therefore, it should be treated as one of the pillar issues of international cooperation rather than a purely domestic issue of individual countries.[666]

In addition, adequate support and capacity-building are crucial for developing countries to effectively implement climate deals that they have ratified.[667] Therefore, China strongly supports the inclusion of issues regarding support and capacity-building in international climate change negotiations. For instance, in its first INDC, China maintained that the Paris Conference should address mitigation, adaptation, support, capacity-building and transparency mechanisms of action and support 'in a comprehensive and balanced way'.[668]

3 ***Maintaining the Complementary Role of Non-State Actors***

Regarding the participation of non-state actors in the making and implementation of international climate change law, China welcomes non-state actors to make contributions to international climate change law by providing scientific support or facilitating social consensus. For instance, China has largely accepted the credibility of the IPCC assessment reports and has actively participated in the compilation and review processes of the IPCC.[669] However, China highlights that non-state actors are not the subject of international agreements, and therefore, the participation of non-state actors in international lawmaking 'should not weaken or undermine the role of sovereign state'.[670] To avoid international climate change negotiations to be driven by non-state actors, China persists in the autonomy or dominance of state actors in the making and implementation of international climate change law.[671]

In summary, China has continuously taken action to maintain the UN climate regime as the main platform of international climate change negotiations, to pursue the implementation of the

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665 UNFCCC, 'China's Submission on Further Guidance' (n 586).

666 The UNFCCC is 'unabashedly favourable to developing countries': see Rajamani, 'Ambition and Differentiation in the 2015 Paris Agreement' (n 400) 506.

667 UNFCCC, 'China's Submission on Modalities, Procedures and Guidelines' (n 626) 2–3.

668 NDRC, 'Enhanced Actions on Climate Change' (n 40) 17.

669 Zhang Yong and Li Yipeng, 'China Held Celebrating Activities to Mark 30th Anniversary of IPCC', *China Meteorological Administration* (Web Page, 14 November 2018) <http://www.cma.gov.cn/en2014/news/News/201811/t20181114_483314.html>.

670 UN Environment Programme, 'Comments of China to the Ad Hoc Open-Ended Working Group Established Pursuant to General Assembly Resolution 72/277' (Web Page, 19 February 2019) <https://wedocs.unep.org/bitstream/handle/20.500.11822/27604/China_report.pdf?sequence=1&isAllowed=y>.

671 This is similar to China's attitudes towards the role of non-state actors in its domestic environmental governance in which China supports the coexistence and cooperation of state actors and non-state actors, but maintains the leading role of state actors: see Yongdong Shen and Benjamin Steuer, 'Conflict or Cooperation: The Patterns of Interaction between State and Non-State Actors in China's Environmental Governance' (2017) 2(4) *Journal of Chinese Governance* 357.

pre-2020 actions of developed countries, and to defend the collective interests of developing countries by bringing a broad range of issues into negotiation agendas. China is a supporter of multilateralism in the UN climate regime. However, although China recognises the importance of the participation of non-state actors in international climate change negotiations, it maintains that the role of non-state actions cannot supersede the primary role of state actors in the making and implementation of international climate change law.

E *Coherence: Promoting the Principle of CBDR in Other International Regimes*

China acknowledges that conflicts of rules and principles arising from the fragmentation of international law will cause confusion for individual countries to clarify their rights and obligations, and thus affect the effectiveness of international law.[672] To enhance global actions on climate change, China supports the coordination of the UN climate regime with other climate-related regimes. For instance, the leaders of China and France together issued the Beijing Call for Biodiversity Conservation and Climate Change in 2019, calling for the enhancement of international cooperation on climate change and biodiversity conservation by mobilising resources from all areas.[673] In addition, to promote the role of natural systems in facilitating climate change mitigation and adaptation, China co-led the Nature-Based Solutions with New Zealand,[674] and promoted the incorporation of these into the negotiation track of the 2019 UN Climate Action Summit and the Post-2020 Global Biodiversity Framework.[675] This represents China's extensive efforts to contribute to the coherence of international climate change law with other parts of international environmental law.

China holds that the UN climate regime is the primary international forum to coordinate international actions on climate change, and other climate-related regimes are only

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672 UN Environment Programme (n 670).

673 'Beijing Call for Biodiversity Conservation and Climate Change', *Xinhua News* (Web Page, 6 November 2019) <http://www.xinhuanet.com/english/2019-11/06/c_138532968.htm>. See also Sébastien Treyer, 'The Beijing Call for Biodiversity Conservation and Climate Change: An Essential Political Impetus', *Institute for Sustainable Development and International Relations* (Web Page, 12 November 2019) <https://www.iddri.org/en/publications-and-events/blog-post/beijing-call-biodiversity-conservation-and-climate-change>.

674 China proposed the nature-based solutions together with New Zealand in the UN Climate Action Summit in 2019, which is the first time that China took on this type of climate leadership role in the UN climate regime: see Lili Pike, 'China Dashes Hopes of Raising its Climate Ambition at UN Climate Summit', *chinadialogue* (Web Page, 24 September 2019) <https://www.chinadialogue.net/article/show/single/en/11535-China-dashes-hopes-of-raising-its-climate-ambition-at-UN-climate-summit>.

675 MEE, 'UN Climate Action Summit: China's Position and Action' (2019); MEE, 'China's Policies and Actions for Addressing Climate Change in 2019' (n 614) 47–8.

complementary to the UN climate regime.[676] From China's perspective, the measures and actions of other climate-related regimes should be consistent with the objectives and basic principles established in the UN climate regime, and the principle of CBDR should be followed in particular.[677] For instance, in the negotiations of the global market-based measures ('GMBMs') at the ICAO[678] and the market-based measures ('MBMs') at the IMO,[679] China concurred that the GMBMs and MBMs should avoid possible incoherence with the principles established in the Paris Agreement, and impose no undue burdens on developing countries.[680] As far as China is concerned, the aviation and shipping emissions of developed countries have peaked while the aviation and shipping industries of developing countries are still underdeveloped.[681] Due to the significance of the aviation and shipping industries on the development of developing countries, it is legitimate and reasonable for developing countries to request differentiated arrangements in the global market mechanism.[682] On this ground, China reserved the operative para 6 of Resolution 22/1 on the ICAO 2020 Carbon Neutral Growth ('CNG2020') in 2016.[683] For China, the CNG2020 generates a 'de facto prejudice' against developing countries' position in international air transportation competition, because

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[676] NDRC, 'China's Policies and Action for Addressing Climate Change in 2016' (November 2016).

[677] UNFCCC, 'Statement of Brazil' (n 586) 6.

[678] According to Resolution A38-18 adopted at the 38th Session of the ICAO Assembly in 2013, the member states of the ICAO decided to achieve a collective medium-term goal of capping international aviation's net emissions at 2020 levels through a GMBM for international aviation emissions, which is known as the CNG2020: see ICAO, 'Why ICAO Decided to Develop a Global MBM Scheme for International Aviation?' (Web Page) <https://www.icao.int/environmental-protection/Pages/A39_CORSIA_FAQ1.aspx>.

[679] MBM is a measure of the effective regulation of GHG emissions from international shipping: see IMO, 'Market-Based Measures' (Web Page) <http://www.imo.org/en/OurWork/Environment/PollutionPrevention/AirPollution/Pages/Market-Based-Measures.aspx>.

[680] China, alongside other countries, even proposed that the Technical Mechanism of the Paris Agreement should be automatically eligible for GMBMs: see ICAO, 'Joint Statement of Argentina, Brazil, China, India, Panama, Russian Federation and Saudi Arabia on International Aviation and Climate Change' (Web Page, 2016) <https://www.icao.int/Meetings/HLM-MBM/Documents/Joint_Statement_1.pdf> paras 10, 13–14. See also UNFCCC, 'Statement of Brazil' (n 586) 6; UNFCCC, 'China's Opening Plenary Statements in the 43rd Session of the Subsidiary Body for Scientific and Technological Advice' (Web Page, 1 December 2015) <https://www4.unfccc.int/sites/submissionsstaging/Pages/Home.aspx>.

[681] China views the international civil aviation transportation as an important strategic industry and treats the issue of international aviation and climate change as a matter of development rights: see Will Horton, 'Pariah or Bulwark? China Rejects Unfair Aviation Climate Change Deal', *Forbes* (Web Page, 26 September 2019) <https://www.forbes.com/sites/willhorton1/2019/09/26/pariah-or-bulwark-china-rejects-unfair-aviation-climate-change-deal/#1e23e56f7df4>.

[682] Feng Hao, 'Daxing, which Contains the World's Biggest Airport Terminal, will Bring Opportunity to the Less Developed South of Beijing but may Increase Air Travel Demand and Carbon Emissions', *chinadialogue* (Web Page, 07 October 2019) <https://www.chinadialogue.net/article/show/single/en/11563-What-does-Beijing-s-new-mega-airport-mean-for-emissions->.

[683] ICAO, 'Plenary Meetings Minutes of the 39th Session of Assembly' (6 October 2016) 43–4. CNG2020 is a goal established by the ICAO to keep 'the global net CO_2 emissions from international aviation from 2020 at the same level': see ICAO, 'Why ICAO Decided to Develop a Global MBM Scheme for International Aviation?' (n 678).

it fails to embody the differentiation between developed and developing countries regarding emission reduction.[684]

China further reserved two resolutions concerning the Carbon Offsetting and Reduction Scheme for International Aviation ('CORSIA'),[685] and called for a high-level meeting in 2021 to continue discussing the flexibility of the requirements for developing countries.[686] China has become one of the new major contributors to the growth of GHG emissions arising from international transportation,[687] and the actions of China on climate change significantly influence the achievement of the long-term GHG emission reduction goals of the ICAO and IMO.[688] However, for China, the calculation of carbon benchmarks in the CORSIA based on annual emission rather than actual contribution and capability of individual countries is unfair to developing countries and emerging economies, which have low historical emissions but will grow in a fast pace in the future.[689] Under the CORSIA, developing countries like China may have to offset more emissions than developed countries that currently have higher emissions but will have a low growth rate in the future.[690] This will bring undue burden to developing countries, and creates difficulties for developing countries and emerging economies to participate in the international aviation market.[691] Therefore, China contends that the work of IMO and ICAO on the reduction of GHG emissions should be coherent with the basic principles established in the UN climate regime.[692]

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[684] ICAO, 'Plenary Meetings Minutes of the 39th Session of Assembly' (n 683) 43–4.

[685] The CORSIA was initiated in 2016 to address any annual increase in total CO_2 emissions from international civil aviation above the 2020 levels: see ICAO, 'What is CORSIA and How Does it Work?' (Web Page) <https://www.icao.int/environmental-protection/Pages/A39_CORSIA_FAQ2.aspx>.

[686] According to a joint statement (WP/605) released by China, India and Russia, China maintained that the CORSIA would create an unfair burden on emerging and developing countries: see Allison Lampert, 'UN Agency Weighs Options for Long-Term Plane Emissions Goal, Faces China Pushback', *Reuters* (Web Page, 5 October 2019) <https://www.reuters.com/article/us-un-aviation/u-n-agency-weighs-options-for-long-term-plane-emissions-goal-faces-china-pushback-idUSKBN1WJ2GI>.

[687] According to a report made by the International Council on Clean Transportation, Chinese flights emitted 95 m tonnes of CO_2 in 2018, making up 13% of global aviation emissions, only second to the US: see Brandon Graver, Kevin Zhang and Dan Rutherford, *CO_2 Emissions from Commercial Aviation, 2018* (Working Pape 2019-16, International Council on Clean Transportation, September 2019) table 3.

[688] The ICAO establishes a long-term goal to halve net aviation CO_2 emissions by 2050 compared with the 2005 level: see ICAO, 'Industry Views on the Basket of Measures and a Long-Term Goal' (Working Paper, A40-WP/194, International Civil Aviation Organization, 2 August 2019).

[689] As forecasted by the International Air Transport Association (IATA), China will become the largest aviation market in the mid-2020s due to the strong needs for air traffic in China: see IATA, 'IATA Forecast Predicts 8.2 Billion Air Travelers in 2037' (Web Page, 24 October 2018) <https://www.iata.org/en/pressroom/pr/2018-10-24-02/>.

[690] ICAO, 'Perspectives on the Fair and Equitable CORSIA Implementation Pathway (Presented by China and the Russian Federation)' (Working Paper A40-WP/306, International Civil Aviation Organization, 2 August 2019).

[691] Horton (n 681).

[692] China maintained that the work undertaken by the IMO and ICAO must complement rather than replace the UNFCCC, Kyoto Protocol and Paris Agreement: see MEE, 'Joint Statement Issued' (n 608).

China's negotiation position on the coherence of international climate change law is reflected in its international practices of maintaining the umbrella role of the UN climate regime and promoting the principle of CBDR to be followed by other climate-related regimes. Moreover, China's perceptions and practices of the coherence of international climate change law are embodied in its domestic practices based on the normative requirements of international climate change law, as will be discussed in detail in Chapter 5.

II DOMESTIC FACTORS INFLUENCING CHINA'S NEGOTIATION POSITION

Having identified China's negotiation position, this section discusses the factors that shape or transform China's negotiation position on the normative qualities of international climate change law. As shown in Chapter 2, the normative role of international law is largely driven by individual countries' observation of its normative qualities under the influences of various factors, such as national interests, international identity and power status.[693] This section examines the status of China's domestic understandings of anthropogenic climate change problems and the transformation of its perceptions of international identity, power status and national interests, and discusses how these factors influence China's reception of the normative qualities of international climate change law.

A *Domestic Understandings of Anthropogenic Climate Change*

Solid domestic understandings of anthropogenic climate change have been achieved in China, as reflected in the perceptions of various domestic actors in China, such as the general public, scientific communities and the Chinese government. The solid domestic understandings serve to build the cognitive foundation for China to strengthen its domestic actions and international cooperation on climate change, and promote it to play an active role in the making and implementation of international climate change law.

1 *Public Awareness*

In China, public awareness of the existence and severity of anthropogenic climate change has significantly increased in recent years, and the general public has widely believed in the necessity of taking active action to address climate change problems. According to the first survey of public awareness of climate change conducted by the China Centre on Climate

[693] See above Part II(c) of Chapter 2.

Change Communication in 2012, 93% of respondents in China believe that climate change is happening, and 55% of respondents believe that climate change is caused mostly by human activities.[694] The second survey of the public awareness of climate change in China organised five years later shows that 94.4% of respondents believe that climate change is happening, 66% of respondents understand that climate change is caused 'mostly by human activities', and 79.8% of respondents worry about the negative impacts of climate change.[695]

The enhancement of public awareness of climate change is generated and reinforced by the frequently occurring extreme weather, natural disasters and air pollution in China. For instance, it has been repetitively reported that some unexpected severe droughts hit Yunnan and Guizhou provinces, which were rich in water resources, and local people have suffered from water shortage frequently since 2007.[696] In 2008, big snowstorms struck the most populated and economically developed south-central regions of China.[697] The unexpected extreme weather and natural disasters have acted as an 'environmental shock' to significantly enhance the awareness of the general public regarding the adverse impacts of climate change on themselves.[698]

In particular, the severe haze and smog resulting from PM 2.5 concentration in northern and eastern China has caused poor visibility and health problems to the residents in these regions.[699]

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[694] China Centre on Climate Change Communication, 'Public Climate Change Awareness and Climate Change Communication in China' (Research Report, Climate Change Communication, 28 November 2012).

[695] China Centre on Climate Change Communication, 'Climate Change in the Chinese Mind Survey Report 2017' (Research Report, Climate Change Communication, 1 November 2017). Other surveys and studies also concur with the increased Chinese public awareness on climate change. According to a survey conducted by the Pew Research Centre in 2016, 73% of the Chinese respondents see climate change as a major threat to China: see Richard Wike and Bruce Stokes, 'Chinese Public Sees More Powerful Role in World, Names US as Top Threat' (Pew Research Centre, 5 October 2016). See also Fredrik Carlsson et al, 'Paying for Mitigation: A Multiple Country Study' (2012) 88(2) *Land Economics* 326–40; Hao Yu et al, 'Public Perception of Climate Change in China: Results from the Questionnaire Survey' (2013) 69(1) *Natural Hazards* 459–72; Binbin Wang and Qinnan Zhou, 'Climate Change in the Chinese Mind: An Overview of Public Perceptions at Macro and Micro Levels' (2020) 11(3) *WIREs Climate Change* 5.

[696] On the relevant reports, see Jeffrey Hays, 'Droughts in China', *Facts and Details* (Web Page, July 2011) <http://factsanddetails.com/china/cat10/sub64/item1879.html>; Qingping Cheng et al, 'Temporal-Spatial Characteristics of Drought in Guizhou Province, China, Based on Multiple Drought Indices and Historical Disaster Records' (2018) *Advances in Meteorology* 1–22; Qin Qing, 'Yunnan Drought Affects More than 300,000 People', *Xinhua* (Web Page, 11 August 2019) <http://www.xinhuanet.com/english/2019-05/17/c_138067362_10.htm>; Zhao Ying, 'Why is Water-Rich Yunnan Often Hit by Droughts?', *CGTN* (Web Page, 2 May 2020) <https://news.cgtn.com/news/2020-05-02/Why-is-water-rich-Yunnan-often-hit-by-droughts--Q9Nw5TBCz6/index.html>.

[697] The storms not only brought inconvenience to the Spring Festival travel season but also damaged the economic and social activities of the regions: see Min Wen et al, 'An Analysis of the Large-Scale Climate Anomalies Associated with the Snowstorms Affecting China in January 2008' (2009) 137 *Monthly Weather Review* 1111–31.

[698] Peter Sheehan et al, 'China's Response to the Air Pollution Shock' (2014) 4 *Nature Climate Change* 306–9.

[699] The smog problem has become one of the hot topics in Chinese media: see Agence France Presse and Keira Lu Huang, 'Smog in Northeast China at Nearly 50 Times World Health Organization Safe Limits', *South China Morning Post* (Web Page, 10 November 2015) <www.scmp.com/news/china/society/article/1877282/smog-northeast-china-nearly-50-timesworld-health-organisation>; Cary Huang, 'Press Freedom Needed to Win China's

The haze and smog problems have affected the health and wellbeing of every ordinary Chinese person,[700] and made the issue of air pollution control 'a project involving all members of Chinese society'.[701] Although air pollution and GHG emissions are not an identical issue, addressing climate change will serve to resolve the problem of air pollution.[702] The process in which Chinese people fight for clean air makes them more willing to believe in the existence of anthropogenic climate change,[703] and to accept the scientific and media reports on the severity of anthropogenic climate change.[704] Even when China has faced big challenges in reviving its economic activities and industrial production in the global pandemic caused by COVID-19,[705] the general public of China still hold a strong belief that climate change is as serious as the global pandemic, and therefore, a green economic recovery from the crisis is required.[706] Thus, the general public in China has achieved a solid shared understanding of the existence and severity of anthropogenic climate change, largely driven by their actual concerns for the adverse impacts of climate change on themselves.[707]

2 *Scientific Communities*

Chinese scientific communities, acting as scientific authorities, consultants of domestic policymaking and facilitators of international cooperation, have played a significant role in

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Choking Air Pollution Battle', *South China Morning Post* (Web Page, 6 December 2015) <http://www.scmp.com/news/china/society/article/1887084/press-freedom-needed-win-choking-air-pollution-battle>; Xu Nan and Zhang Chun, 'How Did China's Air Pollution Get This Bad?', *chinadialogue* (Web Page, 14 January 2013) <https://www.chinadialogue.net/article/show/single/en/5604-How-did-Chinas-air-pollution-get-this-bad->.

[700] The problem of air pollution in China has invoked wide public discontent and caused many demonstrations in some cities: see Lynda Belaidi, 'China and Climate Change Negotiations: Is China a Responsible Stakeholder in the Global Climate Challenge?' (Master's Thesis, Leiden University, 2017) 20; Benjamin Haas, 'China Riot Police Seal Off City Centre after Smog Protesters Put Masks on Statues', *The Guardian* (Web Page, 12 December 2016) <https://www.theguardian.com/world/2016/dec/12/china-riot-police-seal-off-city-centre-aftersmog-protesters-put-masks-on-statues>.

[701] Anna Ahlers and Mette Halskov Hansen, 'Air Pollution: How Will China Win its Self-Declared War against it?' in Eva Sternfeld (ed), *Routledge Handbook of Environmental Policy in China* (Routledge, 2017) 84.

[702] It is accepted that air pollution and climate change are closely related: see Institute for Advanced Sustainability Studies, 'Air Pollution and Climate Change' (Web Page) <https://www.iass-potsdam.de/en/output/dossiers/air-pollution-and-climate-change>.

[703] Wang and Zhou (n 695) 6.

[704] Kastner, Pearson and Rector (n 468) 210.

[705] Rowan Callick, 'The Prospects for China's Post–Covid-19 Economy', *The Interpreter* (Web Page, 5 May 2020) <https://www.lowyinstitute.org/the-interpreter/prospects-china-s-post-covid-19-economy>.

[706] According to a survey conducted by Ipsos, 59% of respondents in China disagree with taking actions on economic recovery without the adequate consideration of environmental health: see Ipsos Global Advisor, 'Earth Day 2020: How do Great Britain and the World View Climate Change and Covid-19?' (Ipsos Global Advisor, April 2020) 5-7.

[707] However, according to a survey conducted by Xu Guangqing and Dong Xiaoqi, the climate change awareness of enterprises in China remains at a low level: see 许光清 [Xu Guangqing] and 董小琦[Dong Xiaoqi], 《企业气候变化意识及应对措施调查研究》 [The Questionnaire Survey on Climate Change Awareness and Business Response to Climate Change of Corporates] (2018) 14(4) 气候变化研究进展 *Climate Change Research* 429–36.

shaping the understandings of the general public and the policymaking of the Chinese government. First, China's scientific communities in the field of climate change have achieved solid shared understandings of the existence and severity of anthropogenic climate change. Unlike the popularity of climate scepticism in the US, climate scepticism does not exist in the climate narratives of the Chinese government.[708] For instance, there was no discussion on climate scepticism in the 378 articles published in the People's Daily.[709] Although there are some sceptics who challenge the authority of the IPCC reports and the scientific certainty of climate change,[710] climate scepticism in general is not widely supported by the Chinese scientific communities.[711]

Second, Chinese scientists have actively engaged in the assessment of climate change organised by the IPCC. A total of 9, 11, 19, 28 and 43 Chinese authors participated in the preparation of the five assessment reports.[712] The assessment results of the IPCC reports, in particular, the impacts of climate change on China, have been frequently referred to by Chinese scientists in their scientific research and policy recommendations.[713] The engagement of Chinese scientists in IPCC assessments has significantly enhanced the credibility of the IPCC reports in China,

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[708] Geof Dembecki, 'The Convenient Disappearance of Climate Denial in China', *Foreign Policy* (Web Page, 31 May 2017) <http://foreignpolicy.com/2017/05/31/the-convenient-disappearance-of-climate-change-denial-in-china/>.

[709] John Chung-En Liu, 'Low Carbon Plot: Climate Change Scepticism with Chinese Characteristics' (2015) 1(4) *Environmental Sociology* 284.

[710] On climate scepticism in China, see Chung-En Liu (n 709) 280–92; 钱维宏 [Qian Weihong], 《天问: 谁驱使了气候变化?》 [Asking the Sky: What Drives Climate Change?] (科学出版社 [Science Press], 2011); 温景嵩[Wen Jinsong], 朱珍华[Zhu Zhenhua] and 黄伟夫 [Huang Weifu], 《气候变化 2010——评 IPCC 二氧化碳变暖说》[Climate Change 2010: Comments on IPCC's Global Warming Hypothesis] (冶金工业出版社 [Metallurgical Industry Press], 2010); 杨学祥 [Yang Xuexiang],《给全球变暖说破点冷水》[Cooling down the Global Warming Narration] (Web Page, 31 August 2006) <http://news.sina.com.cn/c/pl/2006-08-31/104310882681.shtml>; 王芳[Wang Fang], 葛全胜[Ge Quansheng] and 陈泮勤[Chen Panqing], 《IPCC 评估报告气温变化观测数据的不确定性分析》 [Uncertainties of Temperature Observation Data in the IPCC Assessment Report] (2009) 64(7) 地理学报 *Acta Geographica Sinica* 328–38.

[711] Instead, climate scepticism has been repetitively criticised by the Chinese mainstream media: see 张莹 [Zhang Ying], 《新华国际时评: "气候变化怀疑论"可以休矣》 [It is Time to Stop Climate Scepticism], 新华网 [Xinhua] (Web Page, 21 January 2018) <http://www.xinhuanet.com/world/2018-01/21/c_129795558.htm>. However, it is also argued that this is likely because climate change has not been treated as an intrinsically important topic for the media to report: see Jia Hepeng, 'Why are There no Climate Sceptics in the Chinese Media?', *chinadialogue* (Web Page, 28 December 2017) <https://www.chinadialogue.net/article/show/single/en/10287-Opinion-Why-are-there-no-climate-sceptics-in-the-Chinese-media->.

[712] For the recent AR5, China organised over 2,400 people from 18 ministries to review the relevant synthesis report, special reports and methodological guidance documents: see Gao Yun (n 42) 236.

[713] On the relevant policy documents that refer to the assessment results of the IPCC reports, see 《气候变化国家评估报告》编写委员会 [National Assessment Report on Climate Change Editorial Committee], 《气候变化国家评估报告》[National Assessment Report on Climate Change] (Science Press, 2007); NDRC, 'National Climate Change Program' (n 560); 中国气象局气候变化中心 [China Meteorological Administration National Climate Centre],《中国气候变化蓝皮书（2019）》[China Blue Book on Climate Change] (中国气象局气候变化中心 [China Meteorological Administration National Climate Centre], March 2019).

and promoted the shared understandings of Chinese scientific communities regarding climate change problems.

Furthermore, Chinese scientific communities have played an important role in influencing China's domestic and international policies on climate change. At the domestic level, Chinese scientists regularly provide scientific reports and policy advice to the Chinese government.[714] Several advisory bodies in China are formed by top experts in the field of climate change. For instance, the China Council for International Cooperation on Environment and Development ('CCICED') is comprised of China's most influential climate experts from various research institutes.[715] The close ties between scientists and the Chinese government mean that the academic opinions and professional recommendations of scientists are more likely to be accepted by the Chinese government.[716] For instance, the CCICED has contributed 26 policy recommendations to the Chinese government, covering a wide variety of environment and energy issues since 1992.[717]

At the international level, China's position and strategies in international climate change negotiations are largely influenced by its climate scientists. China's first voluntary commitment was recommended by the National Advisory Committee on Climate Change,[718] and its first INDC in 2015 was proposed by the Energy Research Institute and the National Centre for Climate Change Strategy and International Cooperation.[719] In addition, the adherence to the principle of CBDR and the emphasis on climate justice have become a consensus among Chinese scientists, and China's position on the fairness of international climate change law has

[714] Most Chinese scientists affiliate with semi-governmental institutes and universities. For instance, the Energy Research Institute under the NDRC, the National Centre for Climate Change Strategy and International Cooperation under the MEE, the Research Centre for Sustainable Development of the Chinese Academy of Social Science and the Development Research Centre of the State Council are semi-governmental research institutes: see Graig Hart, Zhu Jiayan and Ying Jiahui, 'Mapping China's Climate & Energy Policies' (Research Report, Development Technologies International, December 2018) 23–4.

[715] 《我国成立"气候智囊团"提高科学应对气候变化能力》[The Country Established 'Climate Change Think Tanks' to Enhance the Capabilities of Addressing Climate Change], 中央政府门户网站 [The Official Website of the Central Government] (Web Page, 22 January 2007) <http://www.gov.cn/jrzg/2007-01/22/content_503752.htm>; CCICED, 'Overview' (Web Page) <http://www.cciced.net/cciceden/ABOUTUS/Overview/>.

[716] However, it is also argued that China's authoritarian regime may lead the relevant research to serve its policy preferences: see Xiangbai He, 'Scholarship and Running Debates on Climate Law and Policy in China' in Alexander Zahar, Hao Zhang and Xiangbai He (eds), *Climate Change Law in China in Global Context* (Taylor & Francis Group 2020) 47.

[717] CCICED, 'Policy Research' (Web Page) <http://www.cciced.net/cciceden/POLICY/APR/>.

[718] Jost Wübbeke, 'China's Climate Change Expert Community-Principles, Mechanisms and Influence' (2013) 22(82) *Journal of Contemporary China* 729.

[719] Climate Transparency and Energy Research Institute, 'The Ambition Call: For the UN Secretary General Climate Action Summit' (Climate Transparency and Energy Research Institute, 23 September 2019).

received strong support from Chinese scientific communities.[720] It is clear that the scientific communities of China have reached a consensus on anthropogenic climate change, and have played an influential role in China's domestic policymaking and position in international climate change negotiations.

3 *Chinese Government*

The Chinese government has played a central role in the making and implementation of climate change policies.[721] The official opinions of the Chinese government on climate change can be drawn from its political statements, policy documents and institutional framework relating to climate change.

First, Chinese political leaders have sent a strong and clear political message that the stabilisation of GHG emissions has become an important part of China's development strategies.[722] Chinese President Xi Jinping even highlighted that addressing climate change is not 'what we are asked to do, but what we really want to do and we will do well'.[723] Under the centralised governance system of China, the statements of senior political leaders strongly indicate the political consensus of the ruling elites on climate change, and thus carry significant weight in the making and implementation of climate change policies and laws within China.[724]

Second, the Chinese government has adopted a body of national plans and policies, as shown in Table 4, to highlight the vulnerability of China to climate change, and to lay out its national efforts and actions on climate change. The CNCCP introduced China's policies on climate change for the first time, and highlighted its vulnerability to the adverse impacts of climate change in 2007.[725] From then, almost all of the important policy documents on climate change have stressed China's climate change vulnerability and the necessity of China to take active action on climate change. For instance, all three national communication reports of China have

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[720] Ye Qi and Tong Wu, 'The Politics of Climate Change in China' (2013) 4(4) *Wiley Interdisciplinary Reviews Climate Change* 301–13; Ye Qi et al, 'China's Carbon Conundrum' (2013) 6 *Nature Geoscience* 507–9; 曹明德 [Cao Mingde] (n 267) 29–48.

[721] China's centralised political system endows abundant administrative resources for its environmental governance: see Genia Kostka and Chunman Zhang, 'Tightening the Grip: Environmental Governance under Xi Jinping' (2018) 27(5) *Environmental Politics* 769–81.

[722] Xi Jinping, 'Speech at UN Office in Geneva: Work Together to Build a Community of Shared Future for Mankind', *Xinhua* (Web Page, 18 January 2017) http://www.xinhuanet.com/english/2017-01/19/c_135994707.htm?from=singlemessage ('Speech at UN Office in Geneva').

[723] 'State Council Information Office Briefing on Climate Change', *China.org.cn* (Web Page, 19 September 2014) <http://www. china.org.cn/china/2014-09/19/content_33560895.htm>.

[724] David Sandalow, 'Guide to Chinese Climate Policy 2019' (Center on Global Energy Policy Columbia SIPA, September 2019) 150 ('Guide to Chinese Climate Policy 2019').

[725] NDRC, 'National Climate Change Program' (n 560) 4–6, 60–2.

highlighted the significant impacts of climate change on China's ecological environment, society and economy.[726]

Table 4 China's Climate Change Policy Portfolio

Years	National Plans and Policies
2001	The 10th Five-Year Plan ('FYP') (2001–2005) mentioned climate change for the first time.[727]
2007	The first National Assessment Report on Climate Change was published.[728]
2007	The CNCCP was released.[729]
2008	NDRC released its first white paper on climate change: 'China's Policies and Actions for Addressing Climate Change'.[730]
2011	National People's Congress of China released the 'Twelfth Five-Year Plan for National Economic and Social Development'[731] and the State Council of China released the 'Work Plan on Greenhouse Gas Emission Control for the Twelfth Five-Year Plan Period'.[732]
2013	China's first National Climate Change Adaptation Plan was released.[733]
2014	NDRC released the National Plan on Climate Change (2014–2020).[734]
2015	The 'Intended Nationally Determined Contribution' was submitted.[735]
2016	National People's Congress of China released the 'Thirteenth Five-Year Plan for National Economic and Social Development'[736] and State Council of China released the 'Work Plan for Controlling Greenhouse Gas Emission during the Thirteenth Five-Year Plan Period'.[737]
2017	The 'Guidance on Promoting Green Belt and Road' was released.[738]
2018	The State Council of China released the Three-Year Action Plan to Protect Blue Sky (2018–2020)[739] and the Central Committee of the Communist Party of China and State Council issued the Opinions of Central Committee of the Communist Party of China and State Council of China on Comprehensive Enhancement in Ecological and Environmental Protection, Win the Long-Term War in Pollution Treatment and Prevention.[740]
2019	The 2019 China Blue Book on Climate Change was published.[741]

[726] 'The People's Republic of China Initial National Communication on Climate Change' (October 2004) chapter 3; 'The People's Republic of China Second National Communication on Climate Change' (December 2012) part III; 'The People's Republic of China Third National Communication on Climate Change' (December 2018) part III.

[727] National People's Congress of China, 'Tenth Five-Year Plan for National Economic and Social Development' (15 March 2001).

[728] 《气候变化国家评估报告》编写委员会 [National Assessment Report on Climate Change Editorial Committee] (n 713).

[729] NDRC, 'National Climate Change Program' (n 560).

[730] NDRC, China's Policies and Actions for Addressing Climate Change (31 October 2008).

[731] National People's Congress of China, 'Twelfth Five-Year Plan for National Economic and Social Development' (March 2011).

[732] State Council of China, 'Work Plan on Greenhouse Gas Emission Control for the Twelfth Five-Year Plan Period' (1 December 2011).

[733] NDRC et al, 'National Strategy for Climate Change Adaptation' (18 November 2013).

[734] NDRC, 'China's National Plan for Climate Change (2014-2020)' (September 2014).

[735] NDRC, 'Enhanced Actions on Climate Change' (n 40).

[736] National People's Congress of China, 'Thirteenth Five-Year Plan for National Economic and Social Development' (17 March 2016)

[737] State Council of China, 'Work Plan for Controlling Greenhouse Gas Emission during the Thirteenth Five-Year Plan Period' (27 October 2016).

[738] *Guidance on Promoting Green Belt and Road*, NDRC, Ministry of Environmental Protection, Ministry of Foreign Affairs and Ministry of Commerce (People's Republic of China) 8 May 2017.

[739] State Council of China, 'Three-Year Action Plan to Protect Blue Sky (2018-2020)' (27 June 2018).

[740] 中共中央 [Central Committee of the Communist Party of China] and 国务院[State Council of China],《关于全面加强生态环境保护 坚决打好污染防治攻坚战的意见》[Opinions of Central Committee of the Communist Party of China and State Council of China on Comprehensive Enhancement in Ecological and Environmental Protection, Win the Long-Term War in Pollution Treatment and Prevention] (16 June 2018).

[741] 《中国气候变化蓝皮书 (2019) 》[China Blue Book on Climate Change] (n 713).

In addition, China has placed the management of climate change in charge of the Ministry of Ecology and Environment ('MEE') since 2018.[742] Compared with the NDRC, which is a 'super agency' in the Chinese administrative hierarchy,[743] the power and effectiveness of the MEE to coordinate climate change policies with national economic and social development plans have been questioned.[744] Yet, the MEE has established a comprehensive framework for an environmental data collection and monitoring system, which can serve to integrate climate change policies into the existing environmental protection framework at the national and regional levels.[745] This may help to achieve a better 'top-level design' for coordinating the management of climate change and environmental protection.[746]

Overall, public awareness of the existence and severity of climate change in China has been improved, the scientific certainty of anthropogenic climate change has been established in China's scientific communities, and strengthening the actions on climate change has become an important development agenda, as reflected in China's political statements, policy documents and institutional design. These shared understandings enable China to make its international climate change policies based on considerable support from the general public and scientific communities, and demonstrate the strong political willingness of the Chinese government to take action to address climate change. However, these shared understandings do

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[742] The MEE took over the management of climate change from the NDRC during the Reform of the Party and State Institutions in 2018: see Central Committee of Communist Party of China, 'Decision of the CPC Central Committee on Deepening the Reform of the Party and State Institutions' (28 February 2018).

[743] NDRC, 'Functional Departments' of the NDRC (Web Page) <http://www.ndrc.gov.cn/zwfwzx/znbm/>.

[744] Li Jing, 'China Reshuffle Brings "Challenges" for National Carbon Market: Senior Official', *Clime Home News* (Web Page, 25 April 2018) <https://www.climatechangenews.com/2018/04/25/china-reshuffle-brings-challenges-national-carbon-market-says-top-official/>.

[745] The MEE established the Department of Atmospheric Environment to administer the prevention and control of air pollution and established the Department of Climate Change to coordinate the management of CO_1 and CO_2: see MEE, 'Departments' (Web Page) <http://english.mee.gov.cn/About_MEE/Internal_Departments/>; 高敬 [Gao Jing], 《生态环境部：进一步发挥应对气候变化和大气污染治理协同效应》 [Ministry of Ecology and Environment: Promoting the Coordination of Climate Change and Air Pollution Governance], 新华网 [Xinhua News] (Web Page, 31 October 2018) <http://www.xinhuanet.com/2018-10/31/c_1123643354.htm>; 刘世昕 [Liu Shixin], 《气候司完成转隶 中国应对气候变化有哪些新气象?》[What are the New Development of Climate Change Governance after the Establishment of Department of Climate Change in MEE?], 新华网 [Xinhua News] (Web Page, 1 November 2018) <http://www.xinhuanet.com/politics/2018-11/01/c_1123643979.htm>.

[746] MEE,《应对气候变化司（简称气候司）机构设置和职能》[Establishment and Functions of the Department of Climate Change] (Web Page) <http://www.mee.gov.cn/xxgk2018/xxgk/zjjg/jgsz/201810/t20181008_644817.html>. However, Liu points out that it is problematic for the MEE to deal with climate change issues due to the lack of legal bases: see Ancui Liu, 'China's Legal System: Sources of Law and Institutions Related to Climate Change' in Alexander Zahar, Hao Zhang and Xiangbai He (eds), *Climate Change Law in China in Global Context* (Taylor & Francis Group 2020) 30.

not fully determine China's negotiation position. The international position of China has also been influenced by other factors, as will be explained below.

B *China's International Identity and Power Status*

China has adopted different negotiation positions based on its international identity and power status in the UN climate regime.[747] With the evolution of international climate change negotiations, China has acted as both a developing country and a big power. The dual identities of China lead to its dualistic negotiation position: on the one hand, its developing-country identity makes China take a conservative stance in international negotiations by paying special attention to its development agenda and the calculation of benefits and losses in responsibility allocation, and legitimises its position that persists in the facilitative and nationally determined nature of INDC. On the other hand, the big-power identity promotes China to make more contributions to the long-term global emission stabilisation targets, and to play a leading role in the making and implementation of international climate change law.

1 *The Developing-Country Identity Justifies Its Fairness Discourses and Practices*

China has consistently declared itself as a developing country throughout the various phases of international climate change negotiations. During the early phase, China was still in the early stage of industrialisation, and therefore, economic growth was given first priority by the Chinese government to meet its development agenda.[748] According to the World Bank, China's GDP per capita was only USD366 in 1992, whereas the GDP per capita of the US was USD25,418 in the same year.[749] Another notable description of China's development stage during this phase is, as the then Premier Wen Jiabao stated at Harvard University in 2003, that 'since China has 1.3 billion people, any small individual shortage, multiplied by 1.3 billion, becomes a big, big problem. And any considerable amount of financial and material resources, divided by 1.3 billion, becomes a very low per capita level.'[750]

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[747] China identifies itself based on the groups of self and others: see Hoo Tiang Boon, *China's Global Identity: Considering the Responsibilities of Great Power* (Georgetown University Press, 2018) xviii–xix. See also Chan, *China's Compliance in Global Affairs* (n 47) 15–16.

[748] Bjørkum (n 546) 9; Hallding, Han and Olsson (n 543) 81.

[749] See the relevant data of China and the US reported by the World Bank <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=CN>.

[750] Wen Jiabao, '"Turning Your Eyes to China" -- Speech by Premier Wen Jiabao at Harvard University' Ministry of Foreign Affairs (Web Page, 10 December 2003) <https://www.fmprc.gov.cn/ce/ceun/eng/xw/t56090.htm>.

Despite the development of its economy in recent years,[751] China still maintains itself as a developing country.[752] The developing-country identity of China is supported by many notable international economic organisations. According to the World Bank, China's per capita GDP and income were only around one-quarter of those of the high-income countries, and approximately 373 million Chinese people were living below the 'upper-middle-income poverty' line (USD5.50) per day in 2019.[753] Other measurements of the development stage of China also confirm its developing-country status. For instance, the United Nations Development Programme ('UNDP') ranked the Human Development Index of China as the 85th of the world in 2019, far behind the developed-country group.[754] The International Monetary Fund also considered China as a 'developing economy' in its analysis of economic development and outlook in 2018.[755]

The developing-country identity legitimises China's negotiation position to care more about the fairness and inclusiveness of international climate change law in allocating responsibility and defending the collective interests and wellbeing of the developing-country group in international climate change negotiations. By treating the principle of CBDR as the foundation of its fairness discourses, China has consistently pushed developed countries to take more ambitious, precise and stringent responsibility on climate change, while allowing flexibility for the responsibility of developing countries. During the early phase of international climate change negotiations, China strongly resisted any attempts to modify the strictly differentiated approach established in the UNFCCC and Kyoto Protocol, which allocated mitigation tasks and timetables to developed countries alone.[756] Meanwhile, since the early stage of international

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[751] 张静 [Zhang Jing] and 张宁 [Zhang Ning] (n 10).

[752] Goh Sui Noi, Chong Koh Ping and Lim Yan Liang, '"China Has Made Remarkable Progress, but Remains World's Largest Developing Nation": President Xi', *Straits Times* (Web Page, 18 October 2017) <http://www.straitstimes.com/asia/east-asia/new-policy-agenda-leadership-team-inspotlight-as-china-opens-19th-communist-party>.

[753] World Bank, 'China: Overview' (Web Page, 13 December 2019) <https://www.worldbank.org/en/country/china/overview#1>. The World Bank classifies countries into four groups based on gross national income per capita: low-income countries (USD995 or less), lower-middle-income countries (USD996 to 3,895), upper-middle-income countries (USD3,895 to 12,055), and high-income countries (USD12,056 and above). China has been classified into the group of upper-middle-income countries, second to the high-income countries, based on its gross national income per capita: see World Bank, 'World Bank Country and Lending Groups' (Web Page) <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>.

[754] According to the 2019 Human Development Index Ranking, China's Human Development Index is 0.758, its life expectancy at birth is 76.7 years and its gross national income per capita is 16,127: see UNDP, '2019 Human Development Index Ranking' (Web Page) <http://hdr.undp.org/en/content/2019-human-development-index-ranking>.

[755] The International Monetary Fund uses the terms of 'emerging market and developing economies' to describe developing countries: see International Monetary Fund, 'World Economic Outlook: Challenges to Steady Growth' (International Monetary Fund, October 2018) 134–5.

[756] See above Part I(A)(2)(a) of Chapter 4.

climate change negotiations, China has established a united front with the Group 77 ('G77+China')[757] to strengthen its bargaining power in negotiations, and to demand developed countries to take major climate responsibilities.[758]

During the transitory phase of international climate change negotiations, China still maintained the differentiated approach to responsibility allocation between developed and developing countries. China aligned with the BASIC and like-minded groups to establish their common negotiation position.[759] For instance, in the Copenhagen Conference, the BASIC group became the most important 'counterweight' against developed countries.[760] China, alongside other members of the BASIC group, rejected the Danish Text proposed by some developed countries, and highlighted the relevance of the principle of CBDR in the allocation of responsibilities in the Copenhagen Conference.[761]

Even after China accepted the common responsibility system by ratifying the Paris Agreement, China has never completely abandoned its adherence to the principle of CBDR. Instead, it has continuously emphasised the differentiation between developed and developing countries in terms of responsibility allocation.[762] At COP24 and COP25, China still emphasised that the ambition and actions of developing countries on climate change are largely dependent on adequate financial support, and developed countries shall make quantified financial support targets and provide a concrete roadmap to fulfil their obligation of support.[763]

China's adherence to the fairness and inclusiveness of international climate change law also arises from its common experiences with other developing countries in fighting for state sovereignty and fair opportunities to participate in the construction of the international order.[764]

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[757] Group 77 was founded in 1964 and is a coalition of developing nations, encompassing 134 countries at the time of writing this thesis: see 'The Member States of the Group of 77', *The Group of G77 at the United Nations* (Web Page) <https://www.g77.org/doc/members.html>.

[758] Sjur Kasa, Anne T Gullberg and Gørild Heggelund, 'The Group of G77 in the International Climate Negotiations: Recent Developments and Future Directions' (2008) 8(2) *International Environmental Agreements: Politics, Law and Economics* 120.

[759] Praful Bidwai, 'The Emerging Economies and Climate Change: A Case Study of the BASIC Grouping' (Working Paper, Transnational Institute, September 2014) 3; Kopra (n 227) 35.

[760] The BASIC group countries defend the benchmark of historical responsibilities in international negotiations: see Wu, 'Sino–Indian Climate Cooperation' (n 268) 835–6.

[761] Fleur Huijskens, 'From Norm-Taker to Norm-Shaper and Institution-Creator: China' (Conference Paper, UACES Annual Conference, 5–7 September 2016) 5–8.

[762] NDRC, 'Enhanced Actions on Climate Change' (n 40) 15–6.

[763] See above Parts I(A)(2)(c) and (B)(2)(a) of Chapter 4.

[764] Adil Najam, 'Developing Countries and Global Environmental Governance: From Contestation to Participation to Engagement' (2005) 5(3) *International Environmental Agreements: Politics, Law and Economics* 303–21.

In its 'semi-colonial and semi-feudal society',[765] China was largely excluded from the configuration of international law,[766] and international law also failed to demonstrate its authority and fairness in stopping external powers from eroding China's state sovereignty, territorial integrity and national interests.[767] The historical experiences of 'one century of humiliation' imposed by foreign powers have been embedded in China's national identity,[768] and any agreements associated with 'unequal treaties' are sensitive to both political leaders and ordinary Chinese people's national sentiment and dignity.[769] Therefore, Chinese negotiation delegates in international climate change negotiations prefer to 'play it tough to get the most out of the deal', due to the concerns that China might be bound to an unfair treaty again.[770]

In recent years, China has expressed its ambitions to achieve the 'rule of law in international relations', which reflects Chinese understandings of fairness, justice and democracy in international governance.[771] As stressed by Chinese President Xi Jinping, international law should be implemented by all countries without 'double standards', and the making of international law should respond to the special concerns and legitimate rights of developing countries.[772] Chinese Foreign Minister Wang Yi also stated that the equality between large and small countries is the fine tradition of China's diplomacy, and fairness is one of China's goals

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765 《中华人民共和国宪法》[Constitution of the People's Republic of China] National People's Congress (People's Republic of China) 4 December 1982, preamble.

766 Developing countries share common experiences of being 'disempowered, marginalized and disenfranchised': see 'Semi-Colonial and Semi-Feudal Society; the Old Democratic Revolution', *Chinese History* (Web Page) <http://chinese-history.net/semi-colonial-and-semi-feudal-society-the-old-democratic-revolution/>.

767 Aarshi Tirkey, 'Charting China's Approach to International Law', *Observer Research Foundation* (Web Page, 23 May 2018) <https://www.orfonline.org/expert-speak/charting-chinas-approach-to-international-law/>.

768 China's historical experience during the Century of Humiliation remains in the contemporary Chinese mindset: see Loke (n 62) 211.

769 'Unequal treaty' refers to a large number of treaties through which China was forced to concede many of its territorial and sovereignty rights to Western powers. Such 'unequal treaties' include the Treaty of Nanjing (1842), the British Supplementary Treaty of Bogue (1843), the Treaty of Wangxia (1844), the Treaty of Whampoa (1844), the Treaty of Tianjin (1858), the Boxer Protocol (1901), and so on: see Kenneth Pletcher, 'Unequal Treaty' *Encyclopaedia Britannica* (Web Page) <https://www.britannica.com/event/Unequal-Treaty> 7. See also generally Dong Wang, *China's Unequal Treaties: Narrating National History* (Lexington Books, 2008).

770 Lisa Williams, 'China's Climate Change Policies: Actors and Drivers (Research Report, Lowy Institute for International Policy, 2014) 18. China's negotiation position features as 'under-promising and over-complying': see Lara Lázaro and Mario Esteban, 'China and Climate Change: The Good, the Bad and the Ugly' (Elcano Royal Institute, 3 October 2016) 6.

771 Xi Jinping stated that '[j]ustice is the noble goal that people of all countries pursue in international relations': see 习近平[Xi Jinping], 《弘扬和平共处五项原则 建设合作共赢美好世界——在和平共处五项原则发表60周年纪念大会上的讲话》[Carry Forward the Five Principles of Peaceful Coexistence to Build a Better World Through Win-Win Cooperation: Address at Meeting Marking the 60th Anniversary of the Initiation of the Five Principle of Peaceful Coexistence] (Web Page, 28 June 2014) <https://www.fmprc.gov.cn/web/ziliao_674904/zt_674979/ywzt_675099/2014zt_675101/hpgc_675103/t1169582.shtml>.

772 Ibid.

in its 'Major-Country Diplomacy with Chinese Characteristics in the New Era'.[773] He also stressed that equal and democratic participation of all countries in the making and implementation of international law is vital to the authority or credibility of international law.[774] These statements made by the senior political leaders of China suggest that China's understanding of the authority of international law is based on its merits to promote fairness, justice and democracy in international governance.[775]

Therefore, given its developing-country identity, China has been working to promote the fairness and inclusiveness of international climate change law and treating the principle of CBDR as the foundation of its negotiation position. The developing-country identity and the principle of CBDR legitimise China's position to adhere to the facilitative and nationally determined nature of INDC and to consistently require developed countries to comprehensively implement their obligations of support.

2 *The Big-Power Identity Promotes China to Make Ambitious and Determinate Commitments*

With the growth of its economic strength, the developing-country identity of China has faced significant challenges. The US attempted to impose international responsibility on China based on its economic scale as a whole,[776] and repeatedly urged China to take more responsibility in international governance.[777] In this context, a responsible-power discourse was invoked to 'redirect and constrain' China's position in international climate change negotiations.[778] On various occasions, the US requested 'advanced developing countries' or 'major economies' to be distinguished from other developing countries based on their level of economic

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[773] Wang Yi, 'Talks about General Goal of Major Country Diplomacy with Chinese Characteristics in New Era: To Promote the Building of a Community with Shared Future for Mankind', *Ministry of Foreign Affairs of the People's Republic of China* (Web Page, 19 October 2017) <https://www.fmprc.gov.cn/mfa_eng/zxxx_662805/t1503758.shtml>.

[774] Wang Yi, 'China, a Staunch Defender and Builder of International Rule of Law' (2014) 13(4) *Chinese Journal of International Law* 635–8.

[775] It is argued that the Chinese approaches to the rule of law in international relations are primarily based on its domestic context: see Simone van Nieuwenhuizen, 'China's "Rule of Law in International Relations"' *The interpreter* (Web Page 1 August 2018) <https://www.lowyinstitute.org/the-interpreter/chinas-rule-law-international-relations>.

[776] WTO, 'An Undifferentiated WTO: Self-Declared Development Status Risks Institutional Irrelevance: Communication from the United States', WT/GC/W/757 (16 January 2019).

[777] The US incorporated the 'responsible stakeholder' discourse on China into its national security strategy and pushed China to take more international responsibility: see Robert B Zoellick, 'Whither China: From Membership to Responsibility? Remarks to National Committee on US-China Relations', *US Department of State* (Web Page, 21 September 2005) <http://2001-2009.state.gov/s/d/former/zoellick/rem/53682.htm>.

[778] Kopra (n 227) 21.

development.[779] For instance, in its draft negotiation text submitted to the AWG-LCA before the Copenhagen Conference, the US attempted to divide non-Annex I countries into two sub-categories: 'developing-country Parties whose national circumstances reflect greater responsibility or capability' and 'other developing-country Parties', and sought to update the ambition of these two groups of developing countries based on 'objective criteria of economic development'.[780]

Meanwhile, the G77 has also been subdivided into various groups/blocs due to the external pressure from some developed countries,[781] and the diversity of developing countries' own interests.[782] The Alliance of Small Island States ('AOSIS'),[783] the LDCs and some African countries started to call for some developing countries to take stronger mitigation measures,[784] which 'splintered' the developing-country group.[785] Due to the different pace of economic development and GHG emission growth, the divergence of China's national interest with other developing countries emerged, and the AOSIS and LDCs exerted 'implicit pressure' on China to take more ambitious actions on climate change.[786] As a result, developing countries have acted in a less united manner in recent COPs,[787] and more and more developing countries see China as being among developed countries in terms of its mitigation responsibility.[788] To maintain the solidarity of the G77+China in international climate change negotiations, the concerns of the groups of small island developing states ('SIDS') and LDCs should be taken into account in China's negotiation position.[789] This requires a greater enhancement of China's

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[779] Barack Obama, 'President Obama's Climate Speech', *New York Times* (Web Page, 22 December 2009) <http://greeninc.blogs.nytimes.com/2009/12/18/president-obamasclimate-speech/>; Todd Stern and William Antholis, 'A Changing Climate: The Road Ahead for the United States' (2007) 31(1) *Washington Quarterly* 175–88.

[780] According to the submission of the US, the former should commit to net emissions by 2050, whereas the latter should also update their ambitions based on their respective capability: see UNFCCC, 'US Submission on Copenhagen Agreed Outcome' (Web Page, 5 April 2009) <https://grist.files.wordpress.com/2009/05/usa040509.pdf> arts 2(3)–2(4).

[781] Several developed countries called for a re-categorisation of developing countries in the Cancun Conference, which was regarded as an attempt to divide developing countries into different groups and to call some countries to take responsibilities: see Yu Jie (n 534).

[782] The sub-categories of the G77 include the African Group, the SIDS and the group of LDCs: see UNFCCC, 'Party Groupings' (Web Page) <https://unfccc.int/process-and-meetings/parties-non-party-stakeholders/parties/party-groupings>.

[783] The AOSIS Group is a coalition of 44 small island and low-lying coastal developing countries.

[784] IISD, 'Copenhagen Highlights: Wednesday, 16 December 2009' (2009) 12(457) *Earth Negotiations Bulletin* 2.

[785] Jinnah (n 68) 295.

[786] Wu, 'Sino–Indian Climate Cooperation' (n 268) 834.

[787] Tørstad and Sælen (n 165) 646.

[788] Chen (n 87) 21.

[789] Chinese Foreign Minister Wang Yi stated that China 'has never separated itself from other developing countries and will never do so': see Wang Yi, 'Exploring the Path of Major-Country Diplomacy with Chinese Characteristics: Remarks by Foreign Minister Wang Yi at the Luncheon of the Second World Peace Forum',

efforts and ambitions in international negotiations in response to the concerns of its traditional allies.[790]

In China's defence, China has appeared to discourse itself as a 'largest developing country',[791] 'responsible developing country',[792] 'responsible power'[793] and 'responsible major country'[794] as its economic strength grows.[795] Many analysts believe that China will be listed as one of the superpowers in the near future.[796] In this context, Chinese President Xi Jinping has proposed the concept of 'community with shared future for mankind',[797] and highlighted that 'tackling climate change is a shared mission for mankind'.[798] The constitution of China has also set goals to build 'a community of shared future'.[799] By standing for the 'common interests of all humanity' and promoting the 'common development for all human beings', China has levelled up its position in leading the UN climate regime to address the collectively shared climate change problems,[800] and in providing 'international public goods' for the international community.[801]

Ministry of Foreign Affairs (Web Page, 27 June 2013) <http://in.china-embassy.org/eng/xwfw/xxfb/t1054539.htm>.

[790] China's bargaining power will be greatly impaired if it is figured out from the G77+China: see Wu, 'Sino–Indian Climate Cooperation' (n 268) 793.

[791] MEE, 'China's Policies and Action for Addressing Climate Change in 2018' (n 650); MEE, 'China's Policies and Actions for Addressing Climate Change in 2019' (n 614).

[792] NDRC, 'Enhanced Actions on Climate Change' (n 40) 15.

[793] Wang (n 789).

[794] Zhang Gaoli, 'Build Consensus and Implement Actions for a Cooperative and Win-Win Global Climate Governance System', *Ministry of Foreign Affairs of China* (Web Page, 23 September 2014) <http://www.fmprc.gov.cn/mfa_eng/zxxx_662805/t1194637.shtml>.

[795] The responsible stakeholder discourse was perceived by Chinese scholars as a conspiracy that sought to impose more international responsibilities on China: see Yuan Peng, 'Sino-American Relations: New Changes and New Challenges' (2007) 61(1) *Australian Journal of International Affairs* 109.

[796] Many analysts view that China is qualified to challenge the American hegemony: see Christina Zhou, 'Is America Still the World's Only Superpower or is China a Real Rival? Experts Aren't so Sure Anymore', *ABC News* (Web Page, 23 June 2019) <https://www.abc.net.au/news/2019-06-23/united-states-still-the-worlds-only-superpower/11195636>; Cai (n 45) 3. Some argue that Chia is destined to dominate the 21st century: see William A Callahan, 'Sino-Speak: Chinese Exceptionalism and the Politics of History' (2012) 71(1) *Journal of Asian Studies* 33–55.

[797] As Xi Jinping stated, China is 'taking the driving seat in international cooperation to respond to climate change': see Xi Jinping, 'Xi Jinping's Speech to 19th CPC National Congress' (Web Page, 3 November 2017), <http://www.xinhuanet.com/english/special/2017-11/03/c_136725942.htm>.

[798] Xi Jinping, 'President Xi's Speech at Opening Ceremony of Paris Climate Summit', *China Daily* (Web Page, 1 December 2015) <http://www.chinadaily.com.cn/world/XiattendsParisclimateconference/2015-12/01/content_22592469.htm>.

[799] 《中华人民共和国宪法》[Constitution of the People's Republic of China] (n 765) preamble.

[800] NDRC, 'Enhanced Actions on Climate Change' (n 40) 2.

[801] Wang (n 789).

Under increased external pressure and given its big-power identity, China has started to play a key role in international climate change negotiations since the Paris Conference.[802] Prior to the Paris Conference, China signed bilateral agreements with the US, India, Brazil and the EU,[803] which paved the way for the successful adoption of the Paris Agreement.[804] At the Paris Conference, China coordinated different groups of countries to reach common grounds on many challenging issues. For instance, China facilitated the dialogues between developed and developing countries on the issue of North-South financial assistance, which helped to remove an important hurdle in the North-South cooperation on climate change.[805] With the collective efforts of China and other major countries in the Paris Conference, the Paris Agreement was successfully adopted and has received almost universal acceptance to date.[806] After the Paris Conference, as a compromise to the EU, China also played a constructive role in the adoption of the Paris Rulebook by giving up its position on the bifurcated transparency requirements.[807]

The ratification of the Paris Agreement represents the historical progress of China's attitudes towards the normative role of international climate change law.[808] Even with the announcement of the withdrawal of the US from the Paris Agreement in 2017[809] and the

[802] Many mainstream media have asserted that China played a leading role in the Paris Conference: see 'Is China Challenging the United States for Global Leadership' (n 9); 'China and India Make Big Strides on Climate Change' (n 42); Hilton, 'China Emerges as Global Climate Leader in Wake of Trump's Triumph' (n 9).

[803] These bilateral agreements include the 'US-China Joint Announcement on Climate Change' (n 384); Ministry of External Affairs, Government of India, 'Joint Statement on Climate Change between India and China during Prime Minister's visit to China' (Web Page, 15 May 2015) <https://mea.gov.in/bilateral-documents.htm?dtl/25238/>; 'Joint Statement on Climate Change between the Government of the People's Republic of China and the Government of the Federative Republic of Brazil' (Web Page, 19 May 2015) <http://en.ccchina.gov.cn/archiver/ccchinaen/UpFile/Files/Default/201505211 02001198192.pdf>; Council of the European Union, 'EU-China Joint Statement on Climate Change' (Web Page, 29 June 2015) <https://www.consilium.europa.eu/en/press/press-releases/2015/06/29/eu-china-climate-statement/>.

[804] The US emphasised the relevance of US-China climate policy coordination for the successful conclusion of the Paris Agreement: see Julie Makinen and Chris Megerian, 'China, US Relationship Key in Climate Agreement', *Los Angeles Times* (Web Page, 13 December 2015) <http://www.latimes.com/world/asia/lafg-china-u-s-climate-20151213-story.html>. The President of the European Council recognised that the EU-China Summit generated political will to reach an ambitious global climate agreement in Paris: see Donald Tusk, 'Address by President Donald Tusk at the Annual EU Ambassadors' Conference', *European Council* (Web Page, 3 September 2015) <https://www.consilium.europa.eu/en/ press/press-releases/2015/09/03/tusk-conference-eu-ambassadors/>.

[805] Wei Shen and Lei Xie, 'Can China Lead in Multilateral Environmental Negotiations? Internal Politics, Self-Depiction, and China's Contribution in Climate Change Regime and Mekong Governance' (2018) 59(5–6) *Eurasian Geography and Economics* 708–32.

[806] UNFCCC, 'Paris Agreement - Status of Ratification' (n 405).

[807] Alok Gupta, 'China-EU Strengthen Collaboration Ahead of Climate Talks', *CGTN* (Web Page, 15 November 2018) <https://news.cgtn.com/news/3d3d774e354d544e30457a6333566d54/index.html>.

[808] As one of most notable Chinese negotiators, Xie Zhenhua recognised that the Paris Agreement is 'fair, just, comprehensive and balanced, with legally binding force': see Joyeeta Gupta, 'The Paris Climate Change Agreement: China and India' (2016) 6(1–2) *Climate Law* 171–81.

[809] Donald Trump, 'Statement by President Trump on the Paris Climate Accord', *White House* (Web Page, 1 June 2017) <https://www.whitehouse.gov/briefings-statements/statement-president-trump-paris-climate-accord/>.

commencement of the formal legal process of withdrawal in 2019,[810] China still defends the authority of the Paris Agreement.[811] As Chinese President Xi Jinping stated,

> The Paris Agreement is a milestone in the history of climate governance. We must ensure this endeavour is not derailed. All parties should work together to implement the Paris Agreement. China will continue to take steps to tackle climate change and fully honour its obligations.[812]

In short, China is currently both a developing country and a big power. By acting like a big power, China has made significant contributions to the successful adoption of the Paris Agreement and its Rulebook, demonstrating its increased political will and real actions to enhance its international commitments to the global response to climate change.[813] In addition, as a big power, upholding the fairness of international climate change law demonstrates China's emphasis on its friendship with the G77, and enables China to obtain a high moral ground and a positive international reputation. However, China has never given up its developing-country identity. As a developing country, promoting the fairness of international climate change law serves the collective interests of developing countries, and is good to maintain the solidarity between China and other developing countries. The developing-country identity makes China pay more attention to the fairness and inclusiveness of international climate change law and legitimises China's position on the facilitative and nationally determined nature of INDCs.

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[810] Chloé Farand, 'Trump Begins Formal US Withdrawal from Paris Agreement', *Climate Home News* (Web Page, 11 April 2019) <https://www.climatechangenews.com/2019/11/04/trump-begins-formal-us-withdrawal-paris-agreement/>.

[811] Jess Shankleman, 'China Tells Trump That Climate Change is No Hoax it Invented', *Bloomberg* (Web Page, 17 November 2016) <https://www.bloomberg.com/news/articles/2016-11-16/china-tells-trump-that-climate-change-is-no-hoax-it-invented>; Tom Phillips, 'Climate Change a Chinese Hoax? Beijing Gives Donald Trump a Lesson in History', *The Guardian* (Web Page, 17 November 2016) <https://www.theguardian.com/us-news/2016/nov/17/climate-change-a-chinese-plot-beijing-givesdonald-trump-a-history-lesson>; Justin Worland, 'It Didn't Take Long for China to Fill America's Shoes on Climate Change', *Time* (Web Page, 8 June 2017) <https://time.com/4810846/china-energy-climate-change-paris-agreement/>.

[812] Xi Jinping, 'Speech at UN Office in Geneva' (n 722).

[813] This is confirmed by many observers of China's climate change policies: see 'China Played a Key Role in Global Climate Pact', *SFGATE* (Web Page, 13 December 2015) <www.sfgate.com/world/article/China-played-key-role-in-global-climate-pact-6695812.php>; Daniel Flitton, 'Paris UN Climate Conference 2015: A Global Deal Made in China (and the US)', *The Sydney Morning Herald* (Web Page, 13 December 2015) <www.smh.com.au/environment/un-climate-conference/paris-un-climate-conference-2015-a-global-deal-made-inchina-and-the-us-20151213-glmfo3.html>; Shannon Tiezzi, 'China Celebrates Paris Climate Change Deal', *The Diplomat* (Web Page, 15 December 2015) <http://thediplomat.com/2015/12/china-celebrates-paris-climate-change-deal/>.

C *The Broadened National Interests Incentivise China to Take Ambitious Actions on Climate Change*

National interest is the most reliable factor to interpret the rationale of China's negotiation position and its attitude towards the normative role of international climate change law.[814] If an international agreement is largely consistent with its national interests, China is more likely to accept and ratify the agreement.[815] However, the perceptions of national interests in China are not static but are a dynamically interactive process, largely relying on the balance and reconciliation of its short-term interests (economic prosperity) and long-term interests (energy security, economic restructuring and ecological civilisation).

1 *Short-Term Interests*

In the short term, economic development is naturally the priority of the Chinese government, and the achievement of the long-term temperature goals may be somewhat sacrificed by China under the pressure of the growth of GDP. Because of the rapid growth of its economy since the late 1970s, China has reportedly removed 850 million people out of poverty.[816] Meanwhile, GHG emissions in China have increased rapidly. In 2007, China became the largest contemporary GHG emitter, surpassing the US.[817] It is also reported that the CO_2 emissions of China increased by 80% from 2005 to 2018.[818] The significant growth of its GHG emissions has not only delegitimised China's position on the strict differentiation approach to responsibility allocation, but has started to affect China's own national interests. The rapid GDP growth resulting from the fast but 'dirty' economic expansion is unsustainable and costly, posing a serious threat towards the ecology of China and aggravating China's vulnerability to climate change.[819] According to the Third National Assessment Report on Climate Change, the

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[814] In the world constituted by rational and sovereign international actors, China has selectively accepted the normativity of international law: see Potter (n 46) 699–715. On the interest-based analysis on China's climate change policies, see Wu, 'China's Pragmatic Tactics' (n 536) 778–9.

[815] On China's perceptions of the relationship between international responsibility and national interests, see Loke (n 62) 211; Zhang Zhihong (n 53) 66; Zhang Haibin (n 53); David Shambaugh, 'Coping with a Conflicted China' (2011) 34(1) *The Washington Quarterly* 7–27; Hart, Zhu and Ying (n 714) 150; Kent, 'China's Changing Attitude' (n 46) 58.

[816] World Bank, 'China: Overview' (Web Page, 13 December 2019) <https://www.worldbank.org/en/country/china/overview#1>.

[817] Netherlands Environmental Assessment Agency, 'Global CO_2 Emissions: Increase Continued in 2007' (Web Page, 13 June 2008) <https://www.pbl.nl/en/publications/2008/GlobalCO2emissionsthrough2007>.

[818] M Crippa et al, *Fossil CO_2 and GHG Emissions of All World Countries: 2019 Report* (Report, EUR 29849 EN, Publications Office of the European Union, 2019).

[819] The recent 2019 China Blue Book on Climate Change shows that the increased rate of China's temperature in 2018 was higher than the global average, which has caused the occurrence of more climatic events: see 《中国气候变化蓝皮书（2019）》[China Blue Book on Climate Change] (n 713).

increased GHG emissions in recent years have led to shrunken glaciers and permafrost coverage, rises of sea level, record-breaking temperature events, diminished fishery productivity and other ecological deteriorations, which have significantly affected China's ecological environment, society, agriculture, water security, and so on.[820]

2 *Long-Term Interests*

In the face of serious anthropogenic climate change problems, China has transformed its perceptions of national interests by extending its focus from economic growth to a broader scope of national interests, encompassing its long-term strategies in achieving economic restructuring, energy security and ecological civilisation.

In terms of economic restructuring, China has set targets to achieve a transformation from an energy-intensive manufacturing economy to a 'clean, low-carbon, less resource-intensive, services-oriented economy'.[821] In the restructured economic structure, the quality of economic development, instead of the quantity of economic output, will become a 'new normal', and energy-intensive industries will be significantly reduced.[822] However, economic restructuring has appeared to face opposition from some interest groups in the energy sector of China.[823] To effectively promote economic restructuring, it is necessary to enhance climate change discourse or rhetoric by creating more ambitious and determinate international commitments. Making specific international commitments under the enhanced transparency requirements may serve as external pressure or leverage for the Chinese government to legitimise its economic reform policies and to promote economic restructuring.[824] Therefore, the long-term temperature goals are relevant to the fulfilment of its economic restructuring goal, and it is in China's interests to enhance its ambitions on climate change.

From the perspective of energy security, energy supply and energy price have become two crucial problems the Chinese government is facing. The economy of China relies heavily on

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[820] According to the Third National Assessment Report on Climate Change, the extent of glaciers and permafrost has shrunk by 10.1% and 18.6% since the 1970s, respectively, and the coastal sea level in China rose an average rate of 3.3 mm/year from 1980 to 2017: see Ministry of Science and Technology, *The Third National Assessment Report on Climate Change* (Ministry of Science and Technology, 20 November 2015) 73–88.

[821] Fergus Green and Nicholas Stern, 'Managing Economic Change and Mitigating Climate Change: China's Strategies, Policies and Trends' in Ligang Song et al (eds), *China's New Sources of Economic Growth: Reform, Resources and Climate Change* (Australian National University Press, 2016) 439.

[822] Jing Zhang and Jian Chen, 'Introduction to China's New Normal Economy' (2017) 15(1) *Journal of Chinese Economic and Business Studies* 1–4.

[823] These interest groups may lobby the Chinese government to modify climate change policies through industry associations in the energy sector or their political ties with the Chinese government: see Hart, Zhu and Ying (n 714) 27.

[824] As viewed by Williams, China may gain advantages in the global competition for low carbon industries and technological development through economic restructuring: see Williams (n 770) 17.

the importation of oil and natural gas.[825] According to the Blue Book on the Review and Outlook of the Oil and Natural Gas Industries in China (2018–2019), the dependence of China on the importation of oil and natural gases has reached 70% and 45.3%, respectively.[826] This high dependence on energy importation is unsustainable and insecure because the provision and transportation of oil and natural gases are likely to be disturbed by price volatility and regional conflicts, from China's perspective.[827] The development of renewable energies can diversify the provision of energies in China and promote energy security.[828] Thus, the enhancement of its international commitments to develop renewable energies and increase energy efficiency is consistent with China's interests in ensuring energy security.

China has established a national development agenda on ecological civilisation, which aims to integrate economy, politics, culture, ecology and society (five-in-one), and to maintain harmony between economic growth and ecological health.[829] While ecological civilisation is a broad conceptual framework for sustainable development, climate change is among the various ecological challenges that China needs to address.[830] Taking ambitious and precise international commitments on climate change will serve to push forward the fulfilment of China's agenda to achieve the long-term goal of ecological civilisation.[831]

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[825] China has become the world's largest importer of oil (6.71 million barrels per day in 2015): see Xianchun Tan and Henry Lee, 'Comparative Assessment of China and US Policies to Meet Climate Change Targets', *Harvard Kennedy School Belfer Center for Science and International Affairs* (Web Page, February 2017) <https://www.belfercenter.org/publication/comparative-assessment-china-and-us-policies-meet-climate-change-targets>.

[826] 王志刚 [Wang Zhigang] et al,《中国油气产业发展分析与展望报告蓝皮书(2018—2019)》[Blue Book on the Review and Outlook of the Oil and Natural Gases Industries in China (2018-2019)] (中国石化出版社 [China Petrochemical Press Co. Ltd] 2019).

[827] A total of 80% of China's imports pass through the Malacca Strait, which is seen as a strategic weakness by China: see James Pennington and Ariel Kastner, 'The Geopolitical Impact of China's Approach to Fighting Climate Change', *World Economic Forum* (Web Page, 7 December 2018) <https://www.weforum.org/agenda/2018/12/the-geopolitical-impact-of-china-s-approach-to-fighting-climate-change/>. On the potential risks of China's energy importation, see Guy CK Leung, 'China's Energy Security: Perception and Reality' (2011) 39 *Energy Policy* 1330–37; Green and Stern (n 821) 428–9.

[828] Bing Wang et al, 'Role of Renewable Energy in China's Energy Security and Climate Change Mitigation: An Index Decomposition Analysis' (2018) 90 *Renewable and Sustainable Energy Reviews* 187–94; Williams (n 770) 14.

[829] China has levelled up the goal of ecological civilisation as a national strategy, which is vital to the realisation of the 'Two Centenary Goals' and the Chinese dream of the great rejuvenation of the Chinese nation: see CPC Central Committee and State Council, 《中国共产党中央委员会和国务院关于进一步推进生态文明发展的意见》 [Opinions of the Central Committee of the Communist Party of China and the State Council on Further Promoting the Development of Ecological Civilisation] (25 April 2015).

[830] Arthur Hanson, 'Ecological Civilization in the People's Republic of China: Values, Action, and Future Needs' (Working Paper No 21, ADB East Asia, December 2019).

[831] Ben Parr and Don Henry, 'A New Starting Point: China's Eco-Civilisation and Climate Action Post-Paris' (Briefing Paper 6, Melbourne Sustainable Society Institute, June 2016) 14.

In all, confronted with the serious situations of climate change, China's perceptions of its national interests are no longer fixed in its short-term economic prosperity but extend towards its long-term interests in achieving an upgraded economic structure, diversity of energy sources and ecological civilisation. Economic prosperity is still the pillar of the legitimacy and authority of the Communist Party of China ('CPC'), due to the significant contributions of the economy to the growth of employment, governmental finance and people's livelihood.[832] However, the long-term interests arising from the regulation of climate change have accounted for considerable weight in China's policymaking.[833] As the expansion of its national interests, taking ambitious and precise international commitments seems to have served China's national interests in the stabilisation of GHG emissions and its long-term development agendas.

III SUMMARY AND RECOMMENDATIONS

A *Brief Summary*

This chapter has explored China's negotiation position on the normative qualities of international climate change law, as shown in Table 5. Against the backdrop of the evolution of international climate change law, China has adjusted its negotiation position on the six normative qualities throughout various phases of international climate change negotiations. In terms of the ambitions of climate actions, China has accepted the common responsibility system under the context-based self-differentiation approach; however, it still treats the principle of CBDR as the foundation of its fairness discourses and continuously promotes the establishment of the principle of CBDR in the determinacy, stringency and transparency of responsibility allocation. For the determinacy and stringency of international climate change law, China adheres to the facilitative and nationally determined nature of INDCs and claims for the determinate and stringent obligation of support from developed countries. Although China's position is consistent with the principle of CBDR, it fails to promote the determinacy and stringency of international climate change law in allocating responsibility.

Regarding the transparency of international climate change law, China has played a constructive role in promoting the successful adoption of the Paris Rulebook, which is significant for the enhancement of the transparency of international climate change law.

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[832] Economic interest is critical for explaining China's position in climate change negotiations: see Stalley (n 535) 2.

[833] Daniel K Gardner, '"What about China?" Is a Bad Response to the Climate Crisis Unlike Washington, Beijing Has at Least Gestured at a National Plan to Fight Global Warming', *The New Republic* (Web Page, 20 September 2019) <https://newrepublic.com/article/155136/what-china-bad-response-climate-crisis>; Held, Nag and Roger (n 562) 10–11.

Although there is still ample room for improvement, its concession to the common transparency requirements with a nuanced differentiation is certainly a significant compromise. Regarding the inclusiveness of international climate change law, China upholds the central role of the UN climate regime in international climate change negotiations and supports enlarging the scope of negotiation issues to reflect the concerns of developing countries. To promote the coherence of international climate change law, China coordinates the UN climate regime with other climate-related regimes and promotes the principle of CBDR to be followed by other climate-related regimes.

Table 5 China's Negotiation Position on the Normative Qualities of International Climate Change Law

Normative Qualities	Negotiation Position
Fairness	Accepting the common responsibility system while adhering to the principle of CBDR.
Determinacy and stringency	Adhering to the facilitative and nationally determined nature of INDCs; Claiming for determinate and stringent obligations of support from developed countries.
Transparency	Conceding to the common transparency requirements with a nuanced differentiation.
Inclusiveness	Upholding the central role of the UN climate regime; Promoting the wide scope of negotiation issues; Maintaining the complementary role of non-state actors.
Coherence	Promoting the principle of CBDR in other climate-related regimes.

China's negotiation position on the normative qualities of international climate change law is fundamentally driven by various factors. This chapter has explained how these factors influence China's negotiation position. The solid domestic understandings of anthropogenic climate change have been achieved in China, the responsible-power identity has been established by the Chinese government, and the long-term interests arising from the regulation of climate change have been significantly emphasised. The solid domestic understandings provide a cognitive foundation for the promotion of China's actions and ambitions on climate change, the responsible-power identity encourages China to play a more active role in international cooperation on climate change, and the broadened national interests incentivises China to take more active actions to address climate change problems. All these factors have together led China to concede to the common responsibility system under an enhanced transparency arrangement, representing a big contribution of China to the transparency of international climate change law.

However, the developing-country identity of China legitimises its negotiation position on the fairness and inclusiveness of international climate change law. As a developing country, the fairness of responsibility allocation among individual countries can explain the rationale behind China's negotiation position. Although China's negotiation position has evolved significantly throughout international climate change negotiations, the principle of CBDR has never been abandoned. China has always been among the supporters of the principle of CBDR and multilateralism in the UN climate regime and has been working on coordinating the UN climate regime with other climate-related regimes. The principle of CBDR is not only reflected in China's fairness discourses, but also accounts for its perceptions and practices of other normative qualities of international climate change law.

B *Recommendations*

With the evolution of China's perceptions of its global identity, power status and national interests, China may be willing to take more responsibility on climate change and promote the normative qualities of international climate change law. To envisage the possible contributions of China to the normative role of international climate change law, it is recommended that China should continue to promote the fairness of international climate change law and push forward the operationalisation of the Paris Agreement and its Rulebook.

1 *Promoting the Fairness of International Climate Change Law*

The fairness of responsibility allocation is both morally correct and economically beneficial for China, and therefore, fairness matters greatly for China's engagement in the construction of international climate change law. China needs to continuously place itself in a moral position by speaking for the collective interests of developing countries, supporting the inclusion of wide negotiation issues in international climate change negotiations and closely tracking the implementation of the pre-2020 obligations of developed countries.

The fairness of international climate change law may be interpreted by different groups of countries to serve their interests.[834] To avoid a situation where the international fairness narratives are dominated by developed countries, China should actively engage in the making and implementation of international climate change law and take every chance to explicate the concerns of developing countries in international climate change negotiations. As correctly observed by Cai, if China does not meaningfully participate in international lawmaking, it will

[834] See above Part I(D) of Chapter 3.

be left with a 'dilemma whether to accept international rules that are created by and favour other states or to reject them'.[835] The capability of improving the persuasiveness of its fairness discourses is important for China to defend its own national interests. Thus, China should enhance its capability of collecting and preparing the relevant data and information to strengthen its fairness discourses and drawing the attention of academic discussion or media to the concerns or perspectives of developing countries.

The parameters and normative contents of the principle of CBDR are always in an evolving process influenced by various dynamic factors. Therefore, the fairness discourses of China must be truly fair and objective by taking into account all factors that might influence the fairness of responsibility allocation. In addition, although China has legitimate reason to maintain its developing-country identity in international climate change negotiations based on the low level of its GDP per capita as discussed in Section II, it is not suitable for China to overuse its developing-country identity in the face of the serious global climate change. China should not intentionally employ the principle of CBDR to evade its own responsibility, but timely adjust its negotiation position and international commitments to the global response to climate change based on the evolution of its domestic circumstances and capabilities. The fairness of international climate change law should be upheld by China all the time in international climate change negotiations no matter for its national interests or moral responsibility.

2 *Pushing Forward the Operationalisation of International Climate Change Law*

Determinacy, stringency and transparency are vital for the effectiveness of international climate change law,[836] and the operationalisation of the legal rules and procedures of the Paris Agreement and its Rulebook will primarily promote the determinacy, stringency and transparency of international climate change law. To push forward the operationalisation of international climate change law, China should take the initiative to create negotiation agendas or actively participate in the negotiation blocs and campaigns proposed by like-minded countries in international climate change negotiations to formulate the operational rules of the Paris Agreement and its Rulebook.[837]

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[835] Cai (n 45) 89.

[836] Brunnée and Hey (n 200) 39; Pauw et al, 'Beyond Headline Mitigation Numbers' (n 425) 23–9.

[837] China, cooperating with New Zealand, has submitted informal notes on common reporting tables and tabular formats to the SBSTA 51: see UNFCCC, 'Common Reporting Tables for the Electronic Reporting of Information in the National Inventory Reports of Anthropogenic Emissions by Sources and Removals by Sinks of Greenhouse Gases' (Web Page, 26 June 2019) <https://unfccc.int/sites/default/files/resource/SBSTA50.IN_.i10a_0.pdf>; UNFCCC, 'Common Tabular Formats for the Electronic Reporting of the Information Necessary to Track Progress

To promote the operationalisation of the Paris Agreement, it is recommended that China should push for the settlement of the operational rules of art 6 of the Paris Agreement centred on global carbon market mechanisms. The negotiations of the technical issues of art 6 of the Paris Agreement are difficult to progress due to the contentious understandings of various issues from different groups of individual countries.[838] China is an important stakeholder in the negotiations of the global carbon market mechanisms, and the issues concerning the transition of Clean Development Mechanism ('CDM') credits to Sustainable Development Mechanism ('SDM') significantly influence the national interests and domestic policies of China.[839] The global carbon market mechanisms may act as an effective tool for climate finance, promote China to take ambitious mitigation actions and strengthen its bilateral or regional cooperation on climate change.[840] Tao et al treat the global carbon market mechanisms as a good opportunity for China to decrease the costs of emission reduction and promote its domestic industries to undertake ambitious actions on climate change.[841] However, the global carbon market mechanisms also bring great challenges to China's existing CDM projects and domestic carbon market systems. For instance, some developed countries are currently seeking to terminate the CDM and to restrict the scope of the transition of CDM activities to the SDM, while many developing countries want to largely incorporate the old CDM carbon credits into the SDM.[842] For China, its registered CDM projects account for 40% of global CDM projects.[843] The limitation of the scope of the CDM projects that can be transferred to SDM means a waste of its previous efforts and capacity-building, which will undermine the confidence of Chinese investors towards the credibility of the global carbon market mechanisms and the certainty of their future investments in SDM activities.[844] Therefore, China should find

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Made in Implementing and Achieving Nationally Determined Contributions under Article 4 of the Paris Agreement' (Web Page, 26 June 2019) <https://unfccc.int/sites/default/files/resource/SBSTA50.IN_.i10b_0.pdf>.

[838] Three 'sticking points' are under contention: the transfer of CDM credits, the methods of avoiding double counting and the ways to ensure overall mitigation of the market: see Chloé Farand, 'What is Article 6? The Issue Climate Negotiators Cannot Agree', *Climate Home News* (Web Page, 2 December 2019) <https://www.climatechangenews.com/2019/12/02/article-6-issue-climate-negotiators-cannot-agree/> ('What is Article 6?'). See also Jocelyn Timperley, 'Brazil Fights Attempt to Cancel its Old Carbon Credits', *Climate Home News* (Web Page, 11 October 2019) <https://www.climatechangenews.com/2019/10/11/brazil-fights-attempt-cancel-old-carbon-credits/>; Brescia (n 483) 35.

[839] The SDM under art 6 of the Paris Agreement is due to replace the CDM established under the Kyoto Protocol: see *Paris Agreement* (n 3) art 6.

[840] The global carbon market mechanism may promote China's cooperation with other countries under the Belt and Road initiative (BRI) and the China South-South cooperation on climate change: see Gao Shuai et al, 'International Carbon Markets under the Paris Agreement: Basic Form and Development Prospects' (2019) 10(1) *Advances in Climate Change Research* 25–6.

[841] Tao Yujie, Li Mengyu and Duan Maosheng, 'Development of Market Mechanisms under the Paris Agreement: Risks and Countermeasures' (2020) 16(1) *Climate Change Research* 117–25.

[842] Gao et al (n 840) 25; Brescia (n 483) 12.

[843] Gao et al (n 840) 26.

[844] Ibid.

a delicate balance between its interests in pushing forward the further operationalisation of art 6 of the Paris Agreement and its surplus interests arising from the CDM carbon credits.[845] A breakthrough of China's position on the transition of CDM carbon credits might be seen at COP26 in Glasgow.[846]

Another option where China could contribute to the operationalisation of the global carbon trading markets is to address double counting concerning the transfer of carbon credits between trading parties. Double counting, which counts the 'same emission reduction more than once to achieve climate mitigation targets',[847] will damage the integrity and effectiveness of the global carbon trading markets.[848] At COP25, Brazil argued that seller countries should not have to apply 'corresponding adjustments'[849] under the SDM, which is believed to cause double counting of emission reduction.[850] Brazil's proposal largely conflicted with the position of the EU that wanted to achieve a 'clean and uniform' accounting system, and the contentions over the issue of double counting was central to the failure of COP25, which was supposed to make establishing rules for the global carbon trading markets.[851] China supports the global efforts to establish the operational rules avoiding double counting for the global carbon trading markets, while taking into account the 'specific concerns of each party'.[852] Both China and Brazil are the members of the BASIC group that have aligned with each other in international climate change negotiations since the Copenhagen Conference.[853] Owing to the strategic partnership between China and Brazil,[854] China might play an important role in coordinating a negotiation position with Brazil in terms of the operational rules of art 6 of the Paris Agreement and might

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[845] Brazil, China and India strongly maintained that the carbon credits created from the CDM projects should be transferred to the SDM under the Paris Agreement: see Farand, 'What is Article 6?' (n 838).

[846] The United Kingdom will host COP26 in Glasgow on 1–12 November 2021.

[847] Lambert Schneider et al, 'Double Counting and the Paris Agreement Rulebook' (2019) 366(6462) *Science*180.

[848] Doug Gavel, 'How to Solve the "Double Counting" Problem: New Paper Outlines Strategy for COP-25 Negotiators', *Harvard Project on Climate Agreements* (Web Page, 11 October 2019) <https://www.belfercenter.org/publication/how-solve-double-counting-problem-new-paper-outlines-strategy-cop-25-negotiators>.

[849] Making 'corresponding adjustment' means that when a seller country transfers a mitigation outcome internationally to another country, this mitigation outcome must not be counted by the country that agreed to transfer it: see Sandra Greiner et al, 'Article 6 Corresponding Adjustments: Key Accounting Challenges for Article 6 Transfers of Mitigation Outcomes' (Climate Focus, BV and Perspectives Climate Group GmbH, 2019) 5.

[850] Timperley (n 480); Hou Liqiang, 'Climate Talks Must Solve "Double Count" Issue to Progress, Experts say', *China Daily* (Web Page, 25 November 2019) <http://www.chinadaily.com.cn/global/2019-11/25/content_37525072.htm>.

[851] Hou (n 850).

[852] Ibid. The director of the Department of Climate Change of the MEE in China, Li Gao, has stressed that the rules for art 6 of the Paris Agreement should be established to avoid double counting.

[853] See above Part II(B)(1) of Chapter 4.

[854] Izabella Teixeira, 'An Environmental Agenda for Brazil and China in a Multipolar World, China and Brazil can Pursue a Path that Brings Prosperity and Sustainability' (Web Page, 9 January 2019) <https://dialogochino.net/en/climate-energy/18534-an-environmental-agenda-for-brazil-and-china/>.

encourage Brazil to soften its rigid position on the rejection of the 'corresponding adjustments' in counting emission reduction.[855]

In addition, developing countries generally have limited capability to prepare for reporting and review with a high standard of precision and transparency.[856] Therefore, it is morally fair and politically necessary to highlight developed countries' obligation of support, while allowing flexibility for some developing countries, in the operational rules of the Paris Agreement and its Rulebook. China should continue to defend the collective interests of developing countries by pushing for the making of operational rules relating to developed countries' obligation of support in international climate change negotiations. Technology support is important for China to enhance its capacity to address the climate change problems.[857] However, China to date has received a limited number of climate technologies due to policy barriers imposed by developed countries.[858] To strengthen the operational rules for the implementation of developed countries' obligation of support, China should continue to work with other developing countries to clarify developed countries' obligations of support.

[855] The BASIC group holds Ministerial Meeting on Climate Change every year to coordinate the negotiation position of its member states.
[856] Developing countries usually do not have enough capabilities in terms of institution, techniques and experiences to address climate change: see Wang and Gao (n 195) 257–9.
[857] Takahiro Ueno, 'Technology Transfer to China to Address Climate Change Mitigation' (Resources for the Future, August 2009).
[858] Developed countries tend to establish export obstacles or security review processes to restrict the transfer of climate technologies to developing countries: see 'The People's Republic of China Third National Communication on Climate Change' (n 726) 176.

CHAPTER 5 CHINA'S DOMESTIC PRACTICES OF THE NORMATIVE QUALITIES OF INTERNATIONAL CLIMATE CHANGE LAW

A pure investigation of China's negotiation position is inadequate to fully understand its real attitudes towards international law. Instead, the evaluation of its domestic practices, which also reflects the vertical coherence of international climate change law,[859] is more helpful to ascertain China's attitudes towards the normative qualities of international climate change law. As contended by Guzman, the compliant behaviours of individual countries at the domestic level are central to the role of international law in regulating their behaviours.[860] A focus on China's domestic climate change practices will help to verify whether and how China implements its international commitments and treaty obligations.

To evaluate whether and how China enables its domestic policies and legal framework to be coherent with the normative requirements of international climate change law, this chapter studies (a) the implementation of its pre-2020 commitment targets, (b) the ambitions of its pre-2030 commitments, (c) the determinacy of the contents of its pre-2030 commitments, (d) the implementation of its obligations of reporting and (e) the legal status of international climate change law in China's domestic legal framework. In addition, this chapter, based on the evaluation results, suggests recommendations for China to enhance its domestic actions on climate change to promote the normative qualities of international climate change law.

I HAS CHINA IMPLEMENTED ITS PRE-2020 COMMITMENTS?

According to its Cancun Pledge pre-2020 Target, which was submitted to the UNFCCC Secretariat in 2010, China committed to achieving a carbon intensity target 'to lower its carbon dioxide emissions per unit of GDP by 40-45% by 2020 compared to the 2005 level', a renewable energy target to 'increase the share of non-fossil fuels in primary energy consumption to around 15% by 2020' and a forestry target to 'increase forest coverage by 40

[859] Ziganshina (n 101) 53–4. See above Part II(B)(6) of Chapter 2.

[860] It is argued that in the absence of compliance behaviours, 'resources devoted to the creation and maintenance of international legal structures' such as treaty making, are wasted: see Guzman (n 58) 1830.

million hectares and forest stock volume by 1.3 billion cubic meters by 2020 from the 2005 levels'.[861]

To implement its pre-2020 commitment targets, China made the National Plan For Tackling Climate Change 2014-2020 in 2014, which was the first national plan specialised in climate change in China.[862] In addition, China has also incorporated the pre-2020 targets into its national economic and social development plans, namely FYPs.[863] Although the targets of the FYPs are not legally binding, the incorporation of its international commitments into the FYPs signifies the strong political willingness and real efforts of China to coordinate its national resources to address climate change problems.[864]

To date, China has achieved all its pre-2020 targets. In terms of its carbon intensity target, China's carbon intensity in 2017 declined by approximately 46% compared with that of 2005; therefore, China has reached its pre-2020 carbon intensity target three years early.[865] According to a study conducted by Wang and He, China's carbon intensity in 2020 is expected to fall by 52.9% to 54.4% than that of 2005, largely overfulfilling its pre-2020 carbon intensity target.[866]

Regarding its non-fossil energy target, China has invested tremendously in developing renewable energies.[867] For instance, the wind power capacity of China accounted for one-third of the global total capacity, and its solar photovoltaic power capacity represented one-fourth of

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[861] NDRC, 'Cancun Pledge Pre-2020 Target' (n 40).

[862] It also quantified China's mitigation targets in the sectors of air freight, waterway transportation, railway transportation, renewable energy, industry, building, and so on: see NDRC,《国家应对气候变化规划(2014-2020年)》[National Plan For Tackling Climate Change 2014-2020] (September 2014) 5–16.

[863] According to the 13th FYP, the carbon intensity of China will be reduced by 18% in 2020 compared with that of 2015; the total energy consumption will be kept below 5 billion tonnes of standard coal equivalent; the energy intensity will be reduced by 15% than that of 2015; the share of non-fossil fuels in primary energy consumption will be increased to 15%; and the forest stock volume will be increased to 16.5 billion m^3 at the end of the 13th FYP period: see State Council of China, 'Work Plan for Controlling Greenhouse Gas Emission during the Thirteenth Five-Year Plan Period' (n 737).

[864] China is making its 14th FYP led by the NDRC: see Olivia Lin, 'NDRC to Prepare for the 14th Five-Year Plan', *CMS* (Web Page, 12 December 2018) <https://cms.ati.ms/2018/12/ndrc-to-prepare-for-the-14th-five-year-plan/>. The incorporation of its international commitments into the 14th FYP will help the implementation of China's obligations on climate change during the next period of five years: see Tom Baxter and Yao Zhe, 'The 14th Five Year Plan: What Ideas are on the Table?', *chinadialogue* (Web Page, 7 August 2019) <https://www.chinadialogue.net/article/show/single/en/11434-The-14th-Five-Year-Plan-what-ideas-are-on-the-table->.

[865] MEE, 'China's Policies and Action for Addressing Climate Change in 2018' (n 650) 1; David Stanway, 'China Meets 2020 Carbon Target Ahead of Schedule: Xinhua', *Reuters* (Web Page, 27 March 2018) <https://www.reuters.com/article/us-china-climatechange-carbonidUSKBN1H312U>.

[866] Wang Hailin and He Jiankun, 'China's Pre-2020 CO2 Emission Reduction Potential and its Influence' (2019) 13 *Frontiers in Energy* 571–8.

[867] China has taken important actions to reduce its dependence on high carbon industries 'in an almost brutal manner': see Shen and Xie (n 805) 719.

the total capacity of the world in 2019.[868] China's continuous efforts and investments in the research, generation and development of renewable energies make it a 'new champion' in developing low-carbon industries.[869] In 2019, the share of non-fossil energy in China's primary energy consumption increased to 15.3%, which suggests that China's pre-2020 targets in terms of the share of non-fossil fuel have been achieved ahead of time.[870]

Regarding its forestry target, China has made notable progress in increasing the continuous growth of the forest carbon sink. China's forest stock volume reached 15.1 billion m^3 and the percentage of forest coverage increased to 21.66% by 2015,[871] surpassing far beyond its pre-2020 targets in terms of the forest carbon sink. In 2018, China's forest coverage rate reached 22.96%, and its forest stock volume reached 17.56 billion m^3.[872] Therefore, China has met its 2030 commitment in terms of the forest carbon sink ahead of schedule, not to mention its 2020 forestry target.[873]

In addition, China has committed to providing greater financial and technology support to other developing countries.[874] According to its 2018 annual report on climate change policies and actions, China provided assistance to more than 80 developing countries through training workshops and the provision of environmentally friendly materials and equipment.[875] China

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[868] 'End of the Year Wrap-Up: Five Figures Show China's Renewable Energy Growth in 2019', *Renewable Energy World* (Web Page, 12 January 2019) <https://www.renewableenergyworld.com/2019/12/01/end-of-the-year-wrap-up-five-figures-show-chinas-renewable-energy-growth-in-2019/>.

[869] China is regarded as a leading country in the development of renewable energies: see Geoffrey C Chen and Charles Lees, 'Growing China's Renewables Sector: A Developmental State Approach' (2016) 21(6) *New Political Economy* 574–86; Anita Engels, 'Understanding How China is Championing Climate Change Mitigation' (2018) 4 *Palgrave Communications* 1; Simon Evans, 'Official Data Confirms Chinese Coal Use Fell in 2014', *Carbon Brief* (Web Page, 26 February 2015) <www.carbonbrief.org/official-data-confirms-chinese-coal-use-fell-in-2014>; Li Jing, 'Nuclear Energy "Essential" to Meet China's Climate Targets, Top Official Says', *South China Morning Post* (Web Page, 23 December 2015) <www.scmp.com/news/china/policies-politics/article/1894099/nuclear-energy-essential-meet-chinas-climate-targets>; Wang et al (n 828) 188; Alexandra Simon-Lewis, 'How China is Leading the World in Solar Energy Production', *Wired* (Web Page, 2 June 2017) < https://www.wired.co.uk/article/china-climate-change-policy-solar-production>.

[870] 'China Mulls Stronger Clean Energy Goals for Next Five Years', *Bloomberg News* (Web Page, 23 September 2020) <https://www.bloombergquint.com/china/china-considers-stronger-clean-energy-goals-for-next-five-years>.

[871] 'The People's Republic of China Third National Communication on Climate Change' (n 726) 100.

[872] MEE, 'China's Policies and Actions for Addressing Climate Change in 2019' (n 614) 9–10.

[873] In 2019, the Chinese Premier Li Keqiang announced that China had met the forest carbon sink target established in the INDC: see 'Li Keqiang Presided over the National Leading Group Meeting on Climate Change, Energy Conservation and Emissions Reduction', *Industry Dynamics* (Web Page, 3 September 2019) <https://www.en.gl-jci.com/News-show-id-1411.html>.

[874] China has been regarded as a provider of technologies through its South-South Cooperation mechanism: see Frauke Urban, 'China's Rise: Challenging the North-South Technology Transfer Paradigm for Climate Change Mitigation and Low Carbon Energy' (2018) 113 *Energy Policy* 320–30.

[875] MEE, 'China's Policies and Action for Addressing Climate Change in 2018' (n 650) 47. See also 'The People's Republic of China Third National Communication on Climate Change' (n 726) 211–3; Climate Technology Centre & Network, 'Training in China: South-South Cooperation in Addressing Climate Change' (Web Page, 14

also organised nine training sessions and donated materials to more than 10 developing countries under the South-South climate change cooperation mechanism in 2019.[876] A notable example is that China donated a meteorological satellite to Ethiopia in December 2019 to fulfil its promise to provide meteorological and remote-sensing materials to African countries in the Forum on China-Africa Cooperation Beijing Action Plan (2019–2021).[877] The above-mentioned South-South Cooperation activities supported by China show that China is mobilising its national resources to support other developing countries to address climate change problems.[878] Considering that China is a country that has traditionally received support from developed countries,[879] and there is still a big financial shortage (around 1.3 trillion yuan per year between 2016 and 2030) in the implementation of its first INDC,[880] China's actions of support represent a significant development of the implementation of its international commitments.

The preliminary operational mechanism of the South-South Cooperation on climate change has taken shape in China.[881] The applicable technologies transferrable to other developing countries were identified by China in 2010.[882] The cooperation programs with practical targets and mechanisms were determined by the Chinese government in 2015 when Chinese President Xi Jinping announced the China South-South Climate Cooperation Fund (20 billion yuan) and the 'Ten, Hundred, Thousand' project, which is designed to offer training opportunities for 1,000 scientists and experts from developing countries to construct 10 pilot low-carbon industrial parks, and to launch 100 mitigation and adaptation programs in other developing

December 2017) <https://www.ctc-n.org/news/training-china-south-south-cooperation-addressing-climate-change>.

876 MEE, 'China's Policies and Actions for Addressing Climate Change in 2019' (n 614) 27–8.

877 《中非合作论坛北京行动计划（2019-2021 年）》[Forum on China-Africa Cooperation Beijing Action Plan (2019–2021)] (5 September 2018); 《中巴地球资源卫星 04A 星成功发射》[China-Brazil Earth Resource Satellite 04A Launched Successfully], *Guancha* (Web Page, 20 December 2019) <https://www.guancha.cn/politics/2019_12_20_528994.shtml>.

878 《中方回应助埃塞发射卫星:答应非洲兄弟的事,会尽心尽力办好》[China Sent a Satellite for Ethiopia: China's Promises to African Brothers will be Fulfilled with All-out Efforts], *Guancha* (Web Page, 24 December 2019) <https://www.guancha.cn/internation/2019_12_24_529361.shtml>.

879 China has received nearly USD5.2 billion grants and concessional loans from the financial mechanism under the UNFCCC and other channels since 2010: see 'The People's Republic of China Third National Communication on Climate Change' (n 726) 152–8. In 2019, the GCF approved its first green climate fund (USD100 million) to China: see GCF, 'Country Profile: China' (Web Page, 14 November 2019) <https://www.greenclimate.fund/countries/china>.

880 'The People's Republic of China Third National Communication on Climate Change' (n 726) 152–8.

881 China Institute for South-South Cooperation in Agriculture, *China's Contribution to South-South Cooperation: Cases and Implications* (China Institute for South-South Cooperation in Agriculture, March 2019).

882 Ministry of Science and Technology,《南南科技合作应对气候变化适用技术手册》[Applicable Technology Manual: South-South Cooperation on Science and Technology to Address Climate Change] (2010).

countries.[883] In addition, China empowered the newly established China International Development Cooperation Agency to coordinate, supervise and evaluate foreign aid,[884] and authorised the MEE to implement international cooperation programs on climate change.[885] The enhanced institutional framework may help to resolve critical issues such as funding, personnel, cooperation methods and international links in China's South-South climate cooperation progressively.[886]

In conclusion, China has achieved its pre-2020 targets in terms of carbon intensity, non-fossil energy and the forest carbon sink, and is on the right track to implement its commitments to support other developing countries. Although the FYPs and other state plans are not legally binding instruments, they are highly relevant in China's policymaking systems. The implementation of its international commitments through state planning processes shows that China has made commitments to the global response to climate change and taken real actions to comply with its existing international obligations of climate change.

II ARE CHINA'S PRE-2030 TARGETS FAIR?

China's pre-2030 targets are reflected in its first INDC as:

> to achieve the peaking of carbon dioxide emissions around 2030 and making best efforts to peak early; to lower carbon dioxide emissions per unit of GDP by 60% to 65% from the 2005 level; to increase the share of non-fossil fuels in primary energy consumption to around 20%; and to increase the forest stock volume by around 4.5 billion cubic meters on the 2005 level.[887]

The fairness of China's pre-2030 commitments has been challenged because the ambition of the promised targets and actions is regarded as failing to meet the long-term temperature goals established in the Paris Agreement.[888] For instance, the Climate Action Tracker ('CAT') ranks

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[883] 'China South-South Climate Cooperation Fund Benefits Developing Countries', *China Daily* (Web Page, 30 November 2015) <http://www.chinadaily.com.cn/world/XiattendsParisclimateconference/2015-11/30/content_22557413.htm>; Xi Jinping, 'President Xi's Speech at Opening Ceremony of Paris Climate Summit' (n 798).

[884] China International Development Cooperation Agency, 'What we do' (Web Page, 1 August 2018) <http://en.cidca.gov.cn/2018-08/01/c_259525.htm>.

[885] MEE, 'Department of Climate Change' (Web Page, 30 November 2018) <http://english.mee.gov.cn/About_MEE/Internal_Departments/201605/t20160526_346894.shtml>.

[886] Wang Binbin, 'After China's Ministerial Shake-Up, What's Next for South-South Climate Cooperation?', *chinadialogue* (Web Page, 19 June 2018) <https://www.chinadialogue.net/article/show/single/en/10685-After-China-s-ministerial-shake-up-what--next-for-South-South-climate-cooperation->.

[887] NDRC, 'Enhanced Actions on Climate Change' (n 40) 5.

[888] China's INDC targets and actions have been criticised by some analysts: see Harris (n 44) 102–7; Gupta (n 808) 171–81; Glen P Peters et al, 'Measuring a Fair and Ambitious Climate Agreement using Cumulative Emissions' (2015) 10(10) *Environmental Research Letters* 1–9.

China's pre-2030 commitment targets under the category of 'highly insufficient' on the ground that the targets are not ambitious enough to limit global warming to below 2 ℃ as required in the Paris Agreement.[889] In addition, it is estimated that the target of peaking CO_2 emissions in its first INDC is highly likely to be achieved several years before 2030.[890] On this ground, some analysts have criticised that China's CO_2 emissions peaking target is not an ambitious target, but a business-as-usual target.[891]

These criticisms are correct in that China needs to enhance its ambitions to achieve the long-term temperature goals. However, the ignorance of China's great efforts and considerable abatement costs that it pays for the fulfilment of its INDC targets is untenable. A more sensible counterargument to these criticisms would be a comprehensive study of China's pre-2030 commitment targets from the perspective of historically accumulated emissions, per capita emissions, capability and the costs that China will pay for the fulfilment of its INDC targets.

A *China's Historically Accumulated Emissions and Per Capita Emissions*

China's contemporary GHG emissions have been rising for most of the past four decades.[892] In 2018, the percentage of China's CO_2 emissions in the world reached 27.8%.[893] In addition, China's per capita GHG emissions bypassed those of the EU in 2014.[894] In 2017, the level of China's per capita CO_2 emissions (2.0 tC person^{-1} yr^{-1}) exceeded the global average (1.1), the EU average (1.9) and those of most other developing countries.[895] The significant increase of the scale of both current total and per capita GHG emissions shows that China no longer has the moral high ground to walk away from its international responsibility solely by virtue of its

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[889] CAT (n 43). See also Watson et al (n 43) 18.

[890] It is predicted that China will easily reach the target of CO_2 emissions peak by 2030: see Bloomberg New Energy Finance, 'How Ambitious are the Post-2020 Targets? Assessing the INDCs: Comparing Apples with Oranges' (Research Report, Bloomberg New Energy Finance, 13 August 2015) 17. See also Feng Hao and Tang Damin, 'China Could Peak Carbon Emissions in 2023', *chinadialogue* (Web Page, 2 November 2017) <https://www.chinadialogue.net/article/show/single/en/10232-China-could-peak-carbonemissions-in-2-23>; Qilin Liu et al, 'China's Energy Revolution Strategy into 2030' (2018) 128 *Resources, Conservation and Recycling* 78–89; Ye Qi et al, 'China's Post-Coal Growth' (2016) 9 *Nature Geoscience* 564–66; Ye Qi et al, 'China's Peaking Emissions and the Future of Global Climate Policy' (Brookings-Tsinghua Center for Public Policy, 2018) 3 ('China's Peaking Emissions'); Daoyan Guo, Hong Chen and Ruyin Long, 'Can China Fulfill its Commitment to Reducing Carbon Dioxide Emissions in the Paris Agreement? Analysis Based on a Back-Propagation Neural Network' (2018) 25 *Environmental Science and Pollution Research* 27451–62; Michel de Elzen et al, 'Greenhouse Gas Emissions from Current and Enhanced Policies of China until 2030: Can Emissions Peak before 2030?' (2016) 89 *Energy Policy* 224–3.

[891] Harris (n 44) 102–7.

[892] World Bank, 'Data-CO_2 Emissions-China' (n 11).

[893] BP, 'BP Statistical Review of World Energy 2019' (Review, BP, June 2019) 57.

[894] Stefan Nicola, 'China Surpasses EU in Per-Capita Pollution for the First Time', *Bloomberg* (Web Page, 22 September 2014) <http://www.bloomberg.com/news/articles/2014–09-21/china-beats-u-s-in-percapital-pollution-for-first-time>.

[895] An exception is the US (4.4): see Qu é r é et al (n 12) 2167.

low per capita emissions.[896] Instead, the increased GHG emissions of China may become the historical responsibility that China owes to future generations.[897] Therefore, it is fair to require China to take more ambitious actions on climate change from the perspectives of both current total and per capita GHG emissions.

China has a low level of historically accumulated GHG emissions. China's CO_2 emissions generated from 1850 to 2014 account for roughly 12% of the global total emissions, whereas the cumulative CO_2 emissions generated from the US account for 26% and those of the EU account for 23%.[898] Considering its low historically accumulated GHG emissions, the criticisms narrowly based on China's contemporary GHG emissions are misleading.[899] Owing to the low level of its historically accumulated emissions, China has legitimate reasons to require developed countries to bear more historical responsibility in response to climate change. Yet, China's low historical emissions should not lead to a conclusion that it is now China's turn to emit an amount as equal as those of developed countries generated in history.[900] As required by the principle of intergenerational equity, fairness among generations should be considered in China's climate change policies.[901] The new realities of China's contemporary GHG emissions and the evolution of the UN climate regime require China to take enhanced actions on climate change.

B *Increase and Limitation of China's Capability*

China's economic strength has generally increased due to the successful industrialisation and modernisation during the past 40 years.[902] For instance, China's overall GDP reached RMB

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[896] It is argued that China's argument in terms of per capita emissions may have applied in the past, but not now: see Hart, Zhu and Ying (n 714) 139–42.

[897] It is argued that contemporary GHG emissions have severe negative impacts on future generations and any inadequate response to climate change will invoke the obligations of current generations to future generations: see Simon Caney, 'Climate Change, Intergenerational Equity and the Social Discount Rate' (2014) 13(4) *Politics, Philosophy & Economics* 320–42.

[898] David Sandalow, 'Guide to Chinese Climate Policy 2018' (Center on Global Energy Policy Columbia SIPA, July 2018) 11 ('Guide to Chinese Climate Policy 2018').

[899] The CAT evaluated the ambition of China's first INDC targets based on the information regarding energy-related CO_2 emissions starting from 1990, instead of from an earlier starting year. This fails to reflect the situation of China's historically accumulated emissions correctly: see CAT, 'Assumptions' (Web Page, 17 June 2019) <https://climateactiontracker.org/countries/china/assumptions/>.

[900] This is the 'it's our turn' argument as pointed out by Wilson: see Arthur D Wilson, 'The China Syndrome: Challenges for Addressing Climate Change in the 21st Century' (Master's Thesis, University of Toronto, 2010) 57.

[901] Edith Brown Weiss, 'Intergenerational Equity', *Encyclopedia Entries in Oxford Public International Law* (Web Page, February 2013) <https://opil.ouplaw.com/view/10.1093/law:epil/9780199231690/law-9780199231690-e1421>.

[902] On the data and information relating to the growth of China's economy, see generally the online tool of the DataBank of the World Bank via <https://data.worldbank.org/indicator/ny.gdp.pcap.cd>.

99.1 trillion in 2019, accounting for 16% of the global GDP.[903] The growth of economic strength might allow China to spend more financial resources on climate change, enable itself to afford more economic losses due to GHG emission reductions and enhance its confidence to make commitments on the same footing with developed countries. In addition, China's centralised governance system is a unique institutional advantage for China to coordinate its national resources from all levels of government to implement its economic and social development plans and policies.[904] The rapid growth of national strength and its institutional advantage might enhance the capability and willingness of China to take more international responsibility on climate change.

However, it is still questionable whether the increased capability is adequate for China to hit the long-term temperature goals. It is estimated that China needs to 'invest up to USD6.7 trillion in low-carbon industries by 2030' to achieve the collective long-term temperature goals.[905] This investment gap is a significant financial burden that China cannot afford alone.[906] In addition, China still lacks experience and expertise in preparing and communicating the information regarding its GHG emissions and the implementation of its INDC targets based on the enhanced transparency requirements of the Paris Agreement.[907] Considering its restricted financial and technological capabilities, it is legitimate for China to claim for flexibility in making and implementing its international commitments.

C *Abatement Costs of the Implementation of China's INDC Targets*

The fulfilment of the target of carbon peaking by 2030 may lead to a substantial reduction in China's GDP growth,[908] which will undermine its overall objectives of poverty eradication,

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[903] 张静 [Zhang Jing] and 张宁 [Zhang Ning] (n 10).

[904] China's 'top-down governance system' is helpful for the implementation of its FYPs in a centralised and coordinated way: see Sandalow, 'Guide to Chinese Climate Policy 2019' (n 724) 150; Tan and Lee (n 825).

[905] Melanie Hart, Pete Ogden and Kelly Sims Gallagher, 'Green Finance: The Next Frontier for US-China Climate Cooperation', *Centre for American Progress* (Web Page, 13 June 2016) <https://www.americanprogress.org/issues/security/report/2016/06/13/139276/green-finance-the-next-frontier-for-u-s-chinaclimate-cooperation/>.

[906] Therefore, China has continuously urged developed countries to make quantified financial support targets and provide a concrete roadmap to achieve their financial commitments: see UNFCCC, 'Statement of Brazil' (n 586) 4; UNFCCC, 'Submission by the Arab Republic of Egypt' (n 587) paras 5–10; UNFCCC, 'Statement by Ambassador Nozipho Mxakato-Diseko from South Africa on Behalf of the Group of 77 and China, at the Opening Plenary of the 21st Conference' (n 598) para 12.

[907] See below Part IV of Chapter 5.

[908] Liu notes that China's GDP growth reduction rate may be between 1.3% and 3.7%, and its unemployment increase rate may be between 3.2% and 5.3% to meet the peaking target: see Liu Hongqiao, 'COP21: What Paris Means for China', *China Water Risk* (Web Page, 12 January 2016) <http://chinawaterrisk.org/resources/analysis-reviews/cop21-what-paris-means-for-china/>.

social stability, economic prosperity and regime legitimacy.[909] It is estimated that the peak of China's CO_2 emissions will occur when its GDP per capita is in the range from USD20,000 to USD26,000.[910] In contrast, the US peaked its CO_2 emissions in 2005 when its GDP per capita was roughly USD42,000, Japan peaked in 2007 when its GDP per capita was roughly USD37,000 and the OECD countries as a whole peaked in 2007 when their GDP per capita was roughly USD31,000.[911] China's pledge for a peak in CO_2 emissions around 2030 is much earlier and more ambitious compared with other major emitters in terms of both absolute emission cap and carbon intensity,[912] which suggests that China's INDC targets cannot be achieved without substantial domestic efforts and measures.[913]

China's pre-2030 commitment targets are not always criticised as lacking ambition. Some analysts and organisations recognise the significant progress of China's INDC targets and actions on climate change.[914] China's general performance on climate change is categorised by the Climate Change Performance Index ('CCPI') as among the medium-rated countries in 2020.[915] According to the 2020 CCPI, although China's actions regarding the absolute reduction of GHG emissions lag far behind a large number of other countries, its performance in aspects of renewable energy, energy use and climate policies is highly rated, showing China's positive efforts in addressing climate change problems.[916] Wang et al adopted the Global Change Assessment Model to evaluate the degree of ambition of various major countries and regions in reducing carbon emissions through their INDCs.[917] By taking into account the factors of per capita emissions, carbon intensity reduction and abatement costs, the authors found that the ambition of China's INDC targets is above the global average and far greater

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[909] It is widely accepted that economic prosperity is the pillar of the legitimacy and authority of the CPC: see Gardner (n 833); Held, Nag and Roger (n 562) 10–11.

[910] Qimin Chai and Huaqing Xu, 'Modeling an Emissions Peak in China around 2030: Synergies or Trade-Offs between Economy, Energy and Climate Security' (2014) 5(4) *Advances in Climate Change Research* 173.

[911] Ibid.

[912] China's commitments are more ambitious than other leading emitters in terms of the timing of emission peaking: see Sandalow, 'Guide to Chinese Climate Policy 2019' (n 724) 149. Meanwhile, most of the emerging economies have set business-as-usual types of targets: see Pauw, Mbeva and Asselt (n 392) 4.

[913] Therefore, Harris's assertion regarding the inadequacy of China's INDC targets is incomplete and untenable: see generally Harris (n 44) 102–7.

[914] Zhang Zhongxiang (n 42) 12; Qi et al, 'China's Peaking Emissions' (n 890) 6; Gupta (n 808) 171; Zhang Chun (n 565).

[915] According to the 2020 CCPI, China ranks as the 30th country among the countries examined by the CCPI in 2020. See Jan Burck et al, 'Climate Change Performance Index: Results 2020' (NewClimate Institute, December 2019) 9.

[916] Ibid 4, 20–21.

[917] 王利宁[Wang Lining] et al, 《国家自主决定贡献的减排力度评价》 [Assessment of Carbon Reduction Effect of the Nationally Determined Contributions] (2018) 14(6) 气候变化研究进展 [Climate Change Research] 613-20. On the introduction of the Global Change Assessment Model, see Joint Global Chance Research Institute, 'Global Change Assessment Model' (Web Page) <http://www.globalchange.umd.edu/gcam/>.

than the US and the EU.[918]

In summary, its first INDC targets represent a significant development of the ambition of China's international commitments as per its overall capability and abatement costs that China pays for the implementation of its INDC targets. The criticism of China's pre-2030 commitments as business-as-usual targets is a departure from the facts that China has made substantial international commitments to the global response to climate change and has taken active domestic actions to implement its commitments. However, it is accepted that the contemporary GHG emissions of China are on the rise in an unsustainable fashion. Due to the rapid and significant increase of its current total and per capita emissions, it is also reasonable to require China to take new and more ambitious actions, alongside other countries, to address the climate change problems. The new realities of global climate change and its domestic GHG emissions require China to adjust the ambitions of its international commitments on climate change.

III ARE CHINA'S PRE-2030 COMMITMENT TARGETS PRECISE AND STRINGENT?

China's pre-2030 commitment targets reflected in its first INDC are far from being precisely and stringently established due to the vague language used to describe the targets and the lack of specific subjects in its commitments.

A *Mitigation Targets and Actions*

In its first INDC, China set out its mitigation targets and actions in both qualitative and quantitative terms, including emission reduction targets, energy policy measures and carbon sink policies.[919] These targets and actions demonstrate the general directions of China to mitigate its GHG emissions moving towards the long-term temperature goals; however, the precision and stringency of these targets and actions are weakened due to the following reasons:

• The absolute cap for GHG emissions is absent in China's INDC targets.[920] China set a target to peak the emissions of CO_2 around 2030.[921] This is a qualitative and vague target, which cannot be used to clarify the maximum limit of China's GHG emissions by the end of

[918] 王利宁[Wang Lining] et al (n 917) 613–20.
[919] NDRC, 'Enhanced Actions on Climate Change' (n 40) 5.
[920] Absolute emission cap is considered as the most precise and stringent type of INDC targets. It is found that all Annex I countries, except for Turkey, have set absolute emission reduction targets in their INDCs: see Pauw, Mbeva and Asselt (n 392) 3–4.
[921] NDRC, 'Enhanced Actions on Climate Change' (n 40) 5.

the commitment period by 2030.

• China's INDC targets only cover CO_2 emissions rather than all GHGs.[922] Although CO_2 accounts for the majority of GHG emissions of China, the non-CO_2 GHG emissions in China also contribute significantly to the concentration of GHG emissions in the air. For instance, China's non-CO_2 GHG emissions accounted for 16% and 20% of the country's total GHG emissions in 2014 and 2017, respectively.[923] Narrowly focusing on CO_2 emissions cannot precisely and adequately reflect the entire situation of GHG emissions in China.[924]

• Many vague and recommendatory words used in China's INDC targets undermine the determinacy and stringency of its INDC targets and actions. For instance, words such as 'around 2030', 'making best efforts', 'around 20%' and 'around 4.5 billion cubic meters' make China's INDC targets flexible in a wide range of periods or quantities of GHG emissions, which generates a large space for China to interpret the implementation of its INDC targets as it thinks fit.[925]

• There are many more indicators such as the exact number of years, emissions of different sectors and percentage of mitigation targets that can serve to precisely and stringently make clear the exact INDC targets. Yet, the first INDC of China neither specifies these indicators nor provides the methodologies to evaluate the implementation of its mitigation commitments.[926] Due to the lack of precise and stringent indicators, the implementation of the targets set in China's INDC is hard to be effectively assessed.

B *Adaptation Actions*

China considers adaptation as a critical component of the global response to climate change,[927] and commits itself to take active adaptation actions, plans and strategies to strengthen its

[922] Ibid.
[923] 'The People's Republic of China Second Biennial Update Report on Climate Change' (December 2018); Sandalow, 'Guide to Chinese Climate Policy 2018' (n 898) 16.
[924] China's methane emissions have continued to increase in recent years: see Scot M Miller et al, 'China's Coal Mine Methane Regulations Have Not Curbed Growing Emissions' (2018) 19 *Nature Communications* 1–8.
[925] NDRC, 'Enhanced Actions on Climate Change' (n 40) 5.
[926] According to the evaluation of the Climate Watch, the first INDC of China fails to identify the IPCC inventory methodologies and the potential values to be used to track the progress of mitigation targets: see Climate Watch, 'China' (Web Page) <https://www.climatewatchdata.org/ndcs/country/CHN/mitigation?section=overall_assumptions_and_methodologies>.
[927] Mitigation and adaptation have been equally underscored by China since the release of the National Climate Change Program in 2007: see NDRC, 'National Climate Change Program' (n 560) part 3.

resilience to the adverse impacts of climate change.[928] In its first INDC, China declared it would proactively enhance its capability of adapting to climate change risks in some key areas by strengthening early warning strategies, emergency response systems and disaster prevention or reduction mechanisms.[929] However, the first INDC of China does not provide precise adaptation targets or determines the methods to track the progress of the implementation of its adaptation targets.

C *Support*

China's first INDC has aligned financial flow and technology support with its national policies and measures to enhance the capability of the LDCs, small island countries and African countries.[930] However, China does not list support as a target in its first INDC.[931] Regarding financial support, the first INDC of China only makes a general and vague declaration on the establishment of the Fund for South-South Cooperation on Climate Change.[932] It does not make clear the exact amount and sources of funds or mention the methods, application procedures and accounting mechanisms of financial projects. Regarding technology support, the relevant measures provided in the first INDC of China are even more obscure. China only promises to enhance its technological capability by conducting research and development of low-carbon technologies, early warning systems, assessment methods, and so on, and only pledges to provide more technology support to other developing countries.[933]

In 2020, China upgraded its INDC targets. Chinese president Xi Jinping promised to strive to peak CO_2 emissions by 2030 and to achieve carbon neutrality by 2060 at the Climate Ambition Summit.[934] To meet these targets, China committed to reduce its carbon intensity by over 65% from the 2005 level, to increase the share of non-fossil fuels in primary energy consumption to around 25%, to increase the forest stock volume by 6 billion m^3 from the 2005 level and to bring its total installed capacity of wind and solar power to over 1.2 billion kilowatts.[935] As

[928] China is among a limited number of countries that include adaptation actions in their INDCs: see Pauw, Mbeva and Asselt (n 392) 4.
[929] These areas, as exemplified in China's first INDC, include agriculture, forestry, water resources, and cities, coastal and ecologically vulnerable areas: see NDRC, 'Enhanced Actions on Climate Change' (n 40) 5.
[930] Ibid 13–14.
[931] It should be emphasised that China does not have mandatory obligations to provide support to other countries according to the Paris Agreement: see *Paris Agreement* (n 3) arts 9(2) and 10. In addition, none of the Annex I countries to date have described the provision of support in their first INDCs: see Pauw, Mbeva and Asselt (n 392) 5.
[932] NDRC, 'Enhanced Actions on Climate Change' (n 40) 16.
[933] Ibid 13 and 16.
[934] Xinhua, 'Xi Focus-Quotable Quotes: Xi Jinping on climate change', *Xinhua* (Web Page, 13 December 2020) <http://www.xinhuanet.com/english/2020-12/13/c_139585596.htm>.
[935] Ibid.

shown in Table 6, the upgraded INDC has levelled up the ambition and determinacy of China's pre-2030 commitment targets by using clarified words, such as 'by 2030', 'over 65%', 'by 6 billion m^3' and '1.2 billion kilowatts', which is more helpful to determine the commitment targets of China for the pre-2030 period. Compared with its first INDC, the upgraded INDC somewhat reduces the space of China to interpret its INDC targets. However, the enhancement is limited because it still lacks an absolute cap for the emissions of all GHGs, and the peaking target by 2030 is still qualitative. Without an absolute cap or precise indicators to determine its exact commitment targets, the implementation of its targets is hard to be effectively assessed.

Table 6 Comparison of China's First INDC and Upgraded INDC

	The first INDC	**The upgraded INDC**
Overall targets	To peak CO_2 emissions around 2030 and making best efforts to peak early	To peak CO_2 emissions by 2030 and to achieve carbon neutrality by 2060
Carbon intensity target from the 2005 level	Between 60% and 65%	Over 65%
Non-fossil fuels share target	Around 20%	Around 25%
Forest target from the 2005 level	Around 4.5 billion m^3	6 billion m^3
Renewable energy target	No target	Over 1.2 billion kilowatts

Source: Data retrieved from China's first INDC and president Xi Jinping's speech.[936]

IV HAS CHINA IMPLEMENTED ITS OBLIGATIONS OF REPORTING?

By following its international obligations established in the UNFCCC and the Cancun Agreements,[937] China has reported its data and information on GHG inventories and climate change measures to the UNFCCC Secretariat through its national communications and biennial update reports, as shown in Table 7.[938] The third national communication and the second biennial update report submitted recently, inter alia, have made public China's current national circumstances, institutional arrangements, and national GHG inventories, and its latest climate

[936] NDRC, 'Enhanced Actions on Climate Change' (n 40); Ibid.

[937] *UNFCCC* (n 1) art 12(5); *Guidelines for the Preparation of National Communications from Parties not included in Annex I to the Convention*, Decision 17/CP.8, FCCC/CP/2002/7/Add.2 (28 March 2003) annex; *The Cancun Agreements* (n 295) para 60. It is provided that non-Annex I countries should submit their first biennial update reports by December 2014, and every two years thereafter, in accordance with the guidelines contained in decision 2/CP.17: see *Outcome of the Work of the Ad Hoc Working Group on Long-Term Cooperative Action under the Convention*, Decision 2/CP.17, FCCC/CP/2011/9/Add.1 (15 March 2012) annex III.

[938] China's third national communication and second biennial update report were made by following the guidelines for countries not included in Annex I parties to the UNFCCC: see 'The People's Republic of China Third National Communication on Climate Change' (n 726) 30; 'The People's Republic of China Second Biennial Update Report on Climate Change' (n 923) 9.

policies and actions for GHG mitigation, adaptation, support and capacity-building.[939] Although the national communications and biennial update reports submitted by China by no means reflect a high degree of sophistication as required for Annex I countries, the submission of these documents is in general compatible with its existing obligations of reporting.[940]

Table 7 Timeline of China's Submission of Transparency Reports to the UNFCCC Secretariat

Years	Submitted Transparency Reports
2004	First National Communication on Climate Change[941]
2010	Cancun Pledge pre-2020 Target[942]
2012	Second National Communication of Climate Change[943]
2015	Enhanced Actions on Climate Change: China's Intended Nationally Determined Contribution[944]
2016	First Biennial Update Report[945]
2019	Second Biennial Update Report[946] Third National Communication on Climate Change[947]

However, there are many problems in China's reporting of its GHG information and climate change actions. First, China relies heavily on external financial support to prepare for its national GHG inventory and relevant reports. All of China's national communications and biennial update reports are funded by the Trust Fund of the GEF.[948] As a non-Annex I country, it is necessary for China to receive external financial support to prepare its national communications and biennial update reports. However, the heavy dependence on external funds without adequate domestic investments might impair the timeliness and completeness of the relevant reports. Due to the long processes of funding applications and report preparation, the reports that it submits may not timely reflect the real situations of GHG emissions and the actual development of climate change policies and measures in China.[949] Obsolete national GHG

[939] China's national GHG inventories in 2005, 2010 and 2014 are contained in these two documents: see 'The People's Republic of China Third National Communication on Climate Change' (n 726); 'The People's Republic of China Second Biennial Update Report on Climate Change' (n 923).
[940] The transparency requirements applicable to Annex I countries are more sophisticated and stringent than those applicable to non-Annex I countries. See above Part II of Chapter 3.
[941] 'The People's Republic of China Initial National Communication on Climate Change' (n 741).
[942] NDRC, 'Cancun Pledge Pre-2020 Target' (n 40).
[943] 'The People's Republic of China NDRC, 'Enhanced Actions on Climate Change' (n 40).
[943] 'The People's Republic of China First Biennial Update Report on Climate Change' (December 2016). Second National Communication on Climate Change' (n 741).
[944] NDRC, 'Enhanced Actions on Climate Change' (n 40).
[945] 'The People's Republic of China First Biennial Update Report on Climate Change' (December 2016).
[946] 'The People's Republic of China Second Biennial Update Report on Climate Change' (n 923).
[947] 'The People's Republic of China Third National Communication on Climate Change' (n 726).
[948] On the introduction of projects supported by the GEF, see GEF, 'Projects' (Web Page) <https://www.thegef.org/projects-faceted?search_api_views_fulltext=national+communication+china>.
[949] China usually takes three to five years to prepare for its national GHG inventories: see 朱松丽 [Zhu Songli] and 王文涛 [Wang Wentao], 《国际气候谈判背景下的国家温室气体排放清单编制》 [National Greenhouse

inventories and other information will largely undermine the value of the transparency mechanisms in information sharing, trust building and capability enhancement for China.

In addition, China has established an institutional framework and management system for the collection, reporting and assessment of its climate change information at the national and provincial levels.[950] Great efforts have also been made to make clear technical rules regarding the domestic reporting mechanisms of China, such as emission data management and GHG inventory compilation, through a large body of policy documents.[951] However, the existing domestic reporting and review processes in China rely on information that is self-reported by emitters and assembled by local governments, and local governments have considerable discretional power to organise the relevant reports and supervise the situations of GHG emissions.[952] The self-reported approach allows flexibility in measuring and monitoring GHG emissions based on the local situations; however, it lacks strong and independent scrutiny and compliance mechanism.[953] Therefore, the reliability of its GHG information and the credibility of its reporting processes have been criticised by many scholars.[954] For instance, Zheng et al have revealed 'considerable uncertainty' in China's energy data, which suggests that the mitigation achievements of China have been overestimated.[955] It is true that the evaluation of China's transparency reporting performance must be relative.[956] However, the enhanced

Gas Emission Inventory Development in the Context of International Climate Negotiation] (2012) 8(5) 气候变化研究进展 *Climate Change Research* 372–7.

950 The central government of China has incorporated climate change information collection and statistics into its existing statistic channels, and strengthened inter-agency collaboration through the establishment of a 23-member Leading Group on Climate Change Statistics in 2014. At the provincial level, China has incorporated climate change information collection and reporting into its local energy conservation and environmental emission monitoring mechanisms via the compilation of local GHG inventories, and establishment of a common assessment format table and joint review indicator system: see 'The People's Republic of China First Biennial Update Report on Climate Change' (n 945) 105. In 2015, China arranged the compilation of GHG inventories for 2012 and 2014 at the provincial level: see 《关于开展下一阶段省级温室气体清单编制工作的通知》 [Notice on Carrying Out Provincial GHG Inventory Preparation for the Next Stage] NDRC (People's Republic of China) 28 January 2015.

951 The relevant policy documents have been introduced in China's first biennial update report: see 'The People's Republic of China First Biennial Update Report on Climate Change' (n 945) part V.

952 Felicity Deane, Evan Hamman and Yilin Pei, 'Principles of Transparency in Emissions Trading Schemes: The Chinese Experience' (2017) 6(1) *Transnational Environmental Law* 87–106.

953 曾雪兰[Zeng Xuelan], 黎炜驰[Li Weichi] and 张武英 [Zhang Wuying], 《中国试点碳市场 MRV 体系建设实践及启示》[The Practice and Revelation of Monitoring, Reporting and Verification System Construction in the Carbon Emissions Trading Pilots in China] (2016) (1) 环境经济研究 *Journal of Environmental Economics* 138; Da Zhang et al, 'Integrity of Firms' Emissions Reporting in China's Early Carbon Markets' (2019) 9(2) *Nature Climate Change* 164–9.

954 Zahar has comprehensively summarised scholarly criticisms of China's monitoring, reporting, and verification performances: see Zahar, 'Monitoring, Reporting, and Verification' (n 427) 135–8.

955 Heran Zheng et al, 'How Modification of China's Energy Data Affect Carbon Mitigation Targets' (2018) 116 *Energy policy* 337.

956 Zahar, 'Monitoring, Reporting, and Verification' (n 427) 133.

transparency requirements of the Paris Agreement and its Rulebook necessitate China to improve the standards of its climate-related reporting.

According to the MPGs, China will be obligatory to prepare and submit its national GHG inventories and first Biennial Transparency Report using the 2006 IPCC Guidelines after 2024.[957] Therefore, greater efforts and actions are required to increase its capacity of collecting, processing, counting and analysing the information on GHG emissions. It is necessary for China to practise the newly developed reporting standards before 2024. However, China's national GHG inventories of 2010 and 2014, reported in 2018, were made by following the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories, and the 2006 IPCC Guidelines were only treated as a reference.[958] To fully track the actual situations of its GHG emissions and the progression of its climate change policies, as will be evaluated after 2024, China needs to significantly increase its financial resource input and domestic reporting standards based on the 2006 IPCC Guidelines before 2024.

In summary, China has implemented its reporting obligations by preparing and submitting its national communications and biennial update reports based on the existing transparency arrangements of the UNFCCC and Cancun Agreements. However, to meet the enhanced transparency requirements of the Paris Agreement and the MPGs in the future, there is still ample room for improvement in terms of the reliability of its transparency reports and the capacity of its information reporting.

V WHAT IS THE STATUS OF INTERNATIONAL CLIMATE CHANGE LAW IN CHINA'S LEGAL FRAMEWORK?

The status of international agreements in China's legal framework represents China's real actions to implement its international commitments. However, international agreements cannot automatically take effect in China, and certain domestic recognition processes are needed to enforce its international obligations.[959] China's Constitution, Treaty Procedure Law and

[957] *Modalities, Procedures and Guidelines for the Transparency Framework* (n 437) paras 3, 20.

[958] 'The People's Republic of China Third National Communication on Climate Change' (n 726) 30; 'The People's Republic of China Second Biennial Update Report on Climate Change' (n 923) 9. China is currently not obligated to adopt the 2006 IPCC Guidelines in its reports: see *Guidelines for the Preparation of National Communications from Parties not Included in Annex I to the Convention* (n 937) annex para 8; *Revision of the UNFCCC Reporting Guidelines on Annual Inventories for Parties Included in Annex I to the Convention*, Decision 24/CP.19, FCCC/CP/2013/10/Add.3 (31 January 2014) para 2.

[959] International treaties cannot automatically become part of national law, even after ratification, accession or approval: see Xue Hanqin and Jin Qian, 'International Treaties in the Chinese Domestic Legal System' (2009) 8(2) *Chinese Journal of International Law* 300, 305. However, Zhao Jianwen concluded by summarising the relevant law, judicial interpretation and international declarations that all international agreements that China has ratified

Legislation Law do not provide clear and uniform guidance on what is the status of international agreements in China's legal framework, and how they should be applied.[960] Therefore, international agreements are flexibly applied on a statute-by-statute basis in practice.[961] In the field of climate change governance, the applicable rules concerning the implementation of international climate change agreements in China are still absent, and it is difficult to find a clear answer on whether and how international climate change agreements that China has ratified can be directly applied or indirectly transformed in China. Therefore, although China has ratified the UNFCCC, Kyoto Protocol and Paris Agreement, the implementation of these agreements is still subject to the individual policies and laws of China.[962]

As introduced above, China has taken active actions on climate change at the policy level;[963] however, the development of domestic legal systems regarding climate change in China lags behind its domestic efforts and actions at the policy level. As shown in Table 8, many national statutes relating to environmental protection and energy preservation have been promulgated to regulate matters regarding atmospheric pollution and energy saving. Matters regarding climate change, such as adaptation measures, are not the main targets these statutes aim to address.[964]

should be directly applied in China, with no need to transform them into the domestic systems of China: see 赵建文[Zhao Jianwen], 《国际条约在中国法律体系中的地位》[Legal Status of International Agreements in China's Legal System] (2010) (6) 法学研究 *Chinese Journal of Law* 192.

[960]《中华人民共和国宪法》[Constitution of the People's Republic of China] (n 765);《中华人民共和国缔结条约程序法》[Treaty Procedure Law] Standing Committee of the National People's Congress (People's Republic of China) 28 December 1990; 《中华人民共和国立法法》[Legislation Law of the People's Republic of China] National People's Congress, (People's Republic of China) 15 March 2000.

[961] 钟飞燕 [Zhong Feiyan], 《浅谈国际条约在我国国内法中的适用问题》[Application of International Treaties in China's Domestic Legal System] 中国法院网 [China Court Org] (Web Page, 23 December 2010) <https://www.chinacourt.org/article/detail/2010/12/id/438917.shtml>. Xue thinks that three general approaches can be employed to implement China's international obligations, including execution by administrative measures, transformation of treaty obligations and direct application of treaties under specific national legislation: see Xue, *Chinese Contemporary Perspectives on International Law* (n 48) 113. Cai points out three methods to enforce international law at the domestic level: automatic incorporation, transformation, and consistent interpretation: see Cai (n 45) 248.

[962] Ministry of Foreign Affairs (n 581). See also Ancui Liu (n 746) 22.

[963] See above Part I of Chapter 5.

[964] As viewed by Liu, these statutes do not aim to address climate change but help to do so: see Ancui Liu (n 746) 24.

Table 8 China's Climate-Related Statutes[965]

Statutes	Objectives of these Statutes	Provisions Related to Climate Change
Environmental Protection Law	As a basic law in environmental protection, it aims to protect the environment, prevent and control pollution and other public hazards, safeguard human health, and promote the sustainable development of the economy and society.[966]	Does not specifically regulate climate change, but its several provisions may be used to respond to climate change.[967]
Law on the Prevention and Control of Atmospheric Pollution	Sets out rules, standards and procedures in atmospheric pollutant prevention and control.[968]	Highlights the cooperative control of atmospheric pollutants and GHGs, [969] but does not make clear how to control them cooperatively.
Clean Production Promotion Law	Aims to promote clean production, and to reduce and avoid the generation of pollutants.[970]	Might help to control GHG emissions, but the relevant provisions are still abstract.
Circular Economy Promotion Law	Aims to promote the development of the circular economy.[971]	Same as above.
Environmental Impact Assessment Law	Establishes guidelines for assessing certain government planning activities and the construction of any project.[972]	Not made for the regulation of climate change but has indirect influences on climate change.
Renewable Energy Law	Aims to promote the development and utilisation of renewable energy.[973]	Same as above.
Energy Conservation Law	Aims to strengthen energy conservation in the entire society of China.[974]	Same as above.

Note: Some data retrieved from Liu[975] and Shen.[976]

Therefore, the management of climate change is indirectly influenced or supported by these statutes, which demonstrates that the emphases of China's legislative activities are still on atmospheric pollution and energy saving rather than on comprehensive governance of climate

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[965] Other domestic statutes supporting adaptation efforts in China encompass Law on Desert Prevention and Transformation, Forest Law, Grasslands Law, Fishery Law, Land Administration Law, Water Law, Mineral Resources Law, Wildlife Protection Law, Water and Soil Conservation Law, Flood Control Law, Radioactive Pollution Law: see Ancui Liu (n 746) 24–6.

[966] 《中华人民共和国环境保护法》[Environmental Protection Law of the People's Republic of China] Standing Committee of the National People's Congress (People's Republic of China) 1 January 2015, art 1.

[967] Ibid arts 6, 22, 31–2, 40, 53–8.

[968] 《中华人民共和国大气污染防治法》 [Atmospheric Pollution Prevention and Control Law of the People's Republic of China] Standing Committee of the National People's Congress (People's Republic of China) 1 January 2016, art 1.

[969] Ibid art 2(2).

[970] 《中华人民共和国清洁生产促进法》[Cleaner Production Promotion Law of the People's Republic of China] Standing Committee of the National People's Congress (People's Republic of China) 7 January 2012, art 1.

[971] 《中华人民共和国循环经济促进法》[Circular Economy Promotion Law of the People's Republic of China] Standing Committee of the National People's Congress (People's Republic of China) 1 January 2009, art 1.

[972] 《中华人民共和国环境影响评价法》 [Law of the People's Republic of China on Appraising of Environment Impacts] Standing Committee of the National People's Congress (People's Republic of China) 9 January 2003, art 1.

[973] 《中华人民共和国可再生能源法》[Renewable Energy Law of the People's Republic of China] Standing Committee of the National People's Congress (People's Republic of China) 1 January 2006, art 1.

[974] 《中华人民共和国节约能源法》 [Energy Conservation Law of the People's Republic of China] Standing Committee of the National People's Congress (People's Republic of China) 7 February 2016, art 1.

[975] Ancui Liu (n 746) 24–7.

[976] Ying Shen, 'Combating Climate Change: China's Efforts on Environmental Legislation' (2014) 44(3) *Environmental Law Reporter* <https://ssrn.com/abstract=2401992>.

change.[977] Due to the lack of a comprehensive legal system coordinating the climate-related statutes and policies, it is hard to mobilise national resources from all levels of governments, enterprises and citizens to address climate change problems holistically.[978]

A specialised law on climate change was listed as a legislative agenda in the National People's Congress in 2009 through a Resolution that decided to draft a statute to govern climate change comprehensively.[979] Subsequently, a draft of the proposed Climate Change Response Law was completed by the NDRC in 2014.[980] However, the draft of the proposed Climate Change Response Law is full of vague and abstract provisions, and the legislative process of the draft has made no substantial development recently.[981] In particular, since the MEE started to administer climate change matters, the new administration has never expressed its interest in furthering the legislative process of the specialised climate change law. Therefore, as correctly viewed by some analysts, the legislative process of the Climate Change Response Law has reached a stalemate.[982] In the absence of a specialised law on climate change, many important issues regarding climate change have not been determined, and many existing domestic practices in terms of mitigation, adaptation and low-carbon technology investments have not been recognised at the level of law. This will undermine the predictability of China's climate change policies, constrain China's capacity to deal with climate change and affect the

[977] Air pollution and energy efficiency are more important for China's social stabilisation and economic upgrade: see Michal Nachmany et al, 'Climate Change Legislation in China – An Excerpt from 2015 Global Climate Legislation Study: A Review of Climate Change Legislation in 99 Countries' (Grantham Research Institute on Climate Change and the Environment, 2015) 2.

[978] 王社坤[Wang Shekun], 《英国<气候变化法>及其启示》[Implications of the Climate Change Act of the United Kingdom] in 于文轩 [Yu Wenxuan] and 胡静 [Hu Jing] (eds),《环境资源与能源法评论（第 2 辑）：应对气候变化与能源转型的法制保障》*Review of Environment, Resource and Energy Law (Volume 2): Legal Mechanisms of Addressing Climate Change and Energy Transformation* (中国政法大学出版社 [China University of Political Science and Law Press], 2017).

[979] 全国人民代表大会常务委员会 [Standing Committee of the National People's Congress],《全国人大常委会关于积极应对气候变化的决议》[Resolution of Actively Responding Climate Change],中国新闻网 [China News] (Web Page, 28 October 2009) <http://www.ccchina.org.cn/Detail.aspx?newsId=28088&TId=60> para 4.

[980] 孔令钰[Kong Lingyu], 中国起草完成《气候变化应对法》草案 [China Completed the Draft of Law on Addressing Climate Change] 财新网 (Web Page, 23 July 2014) <http://china.caixin.com/2014-07-23/100707692.html>.

[981] 庄敬华 [Zhuang Jinhua],《<气候变化应对法>刑事责任条款探析》[Analysis of the Provisions of Criminal Responsibility in the Law on Addressing Climate Change] (2015) (6) 中国政法大学学报 *China University of Political Science and Law* 141–6.

[982] Jianwei Zhang, Xiaoyi Jiang and Xiaobin Pan, 'Regional Legislation to Address Climate Change in China: Necessity and Feasibility' (2019) 11(4) *International Journal of Climate Change Strategies and Management* 536–51.

effectiveness of its national efforts on climate change.[983]

VI SUMMARY AND RECOMMENDATIONS

This chapter has explored China's domestic practices of the normative qualities of international climate change law, as shown in Table 9.

Table 9 China's Domestic Practices of the Normative Qualities of International Climate Change Law

Normative Qualities	Domestic Practices
Fairness	China's pre-2030 commitment targets are significantly increased; There is considerable room for improvement to achieve collective long-term temperature goals.
Determinacy and stringency	China's pre-2030 commitment targets are indeterminate and less stringent.
Transparency	China's existing reporting obligations have been implemented; Capacity-building and reporting practices need to be strengthened to meet the enhanced transparency requirements.
Coherence	China's pre-2020 targets have been fully achieved; The implementation of its commitments to the provision of support is on the right track; A specialised law on climate change is still absent in its domestic legal systems.

In terms of its normative contributions, China has met its pre-2020 commitment targets, implemented its reporting obligations as required in the existing transparency arrangements of the UNFCCC and Cancun Agreements, and timely made its pre-2030 commitment targets through its first INDC. The INDC targets represent a significant development of China's international commitments to the global response to climate change as per its capability and the costs that it will pay for the implementation of the INDC targets. Thus, China has fulfilled its existing international obligations that it pledged to achieve.

The new realities of the global climate change and its domestic GHG emissions require China to commit more ambitiously and precisely to address the climate change problems, and the enhanced transparency framework of the Paris Agreement and its Rulebook require China to improve its capacity and activity in reporting its GHG information and implementation of its obligations. The level of ambition and precision of China's INDC targets cannot go too far

[983] 李艳芳[Li Yanfang], 张忠利[Zhang Zhongli] and 李程 [LI Cheng], 《我国应对气候变化立法的若干思考》 [Toward Specialized Legislation to Address Climate Change in China] (2016) (1) 上海大学学报(社会科学版) *Journal of Shanghai University (Social Sciences Edition)* 1–12; Ancui Liu (n 746) 31.

beyond its domestic circumstances and capabilities based on the principle of CBDR; however, there is still large room for improvement to enable its domestic practices to be coherent with the normative requirements of international climate change law. Therefore, China should enhance its domestic actions on climate change. It is recommended for China to level up its international commitments, tighten its energy policies on coal energy, regulate its external investments, institutionalise its support to other developing countries, push forward the legislative processes of the specialised law on climate change and enhance the reliability of its domestic reporting and review processes.

A *Levelling up Its International Commitments*

According to the 2019 Emissions Gap Report, the global average temperature increase will be 3.5 ℃ by 2100 provided that the current INDC targets of all countries are fully achieved.[984] It is clear that the current international commitments of all countries are inadequate to meet the 2 ℃ target, not to mention the 1.5 ℃ target. China, as a party to the Paris Agreement, is obliged to exercise due diligence to take all appropriate actions, reflecting its 'highest possible ambition', to achieve the long-term temperature goals.[985] These long-term temperature goals are established for all the parties to the Paris Agreement, and developed countries should bear primary responsibility for achieving these goals.[986] However, China's GHG emissions have significantly contributed to the contemporary global GHG emissions pool,[987] and climate change problems cannot be effectively resolved without the ambitious commitments made by China.[988] The new realities of global GHG emissions and its large contributions to the contemporary GHG concentrations necessitate China to enhance its international commitments based on its best efforts and capabilities. China has achieved its pre-2020 commitment targets

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[984] Rogelj et al (n 393) 27.
[985] *Paris Agreement* (n 3) art 4(3).
[986] Ibid art 2(1)(a).
[987] China was responsible for all the increases in global CO_2 emissions in 2019, with an increase of 0.26 $GtCO_2$, which was larger than the global total increase of 0.24 $GtCO_2$: see Zeke Hausfather, 'Analysis: Global Fossil-Fuel Emissions up 0.6% in 2019 due to China', *Carbon Brief* (Web Page, 4 December 2019) <https://www.carbonbrief.org/analysis-global-fossil-fuel-emissions-up-zero-point-six-per-cent-in-2019-due-to-china>.
[988] The enhancement of China's actions on climate change is a necessary condition for the achievement of the 2 °C target: see Peter Sheehan and Fiona Sun, 'Emissions and Economic Development Must China Choose?' in Ligang Song and Wing Thye Woo (eds), *China's Dilemma: Economic Growth, the Environment and Climate Change* (ANU E Press and Asia Pacific Press, 2008) 393; Held, Nag and Roger (n 562) 34; Sandalow, 'Guide to Chinese Climate Policy 2019' (n 724) 25; Ross Garnaut, 'The New Model of Growth and the Global Resources Economy' in Ross Garnaut et al (eds), *China's Domestic Transformation in a Global Context* (Australian National University Press, 2015) 1; Sarah Ladislaw and Lachlan Carey, 'How China Can Become the World Leader for Solving Climate Change', *The Hill* (Web Page, 12 May 2019) <https://thehill.com/opinion/international/473283-how-china-can-become-the-world-leader-for-solving-climate-change#bottom-story-socials>.

and is on the right track to meet its pre-2030 commitment targets;[989] however, there is still ample room for improvement regarding the ambition of China's international commitments to stay on the 2 ℃ compatible pathway.[990] In addition, to put the concept of 'community with shared future for mankind' into the practices of international relations,[991] China also has every reason to move towards the long-term temperature goals by levelling up its commitment targets in its subsequent INDCs to the highest possible extent.

One possible action that China could take in its next INDC is to set out an enhanced carbon intensity reduction target. It is reported that the total energy consumption in China is still on the rise,[992] and the level of carbon intensity of China is still above the world average.[993] The enhancement of a carbon intensity reduction target does not necessarily establish an absolute carbon emission cap but reduces the quantity of CO_2 emitted for every unit of GDP.[994] This will not fundamentally jeopardise China's economic prosperity, but may serve to foster the progress of its economic restructuring from coal-intensive industries to renewable energies.[995] Therefore, the enhancement of its carbon intensity reduction target is not only realistic but also necessary in China's next INDC.[996]

In addition, another action that is recommended is the inclusion of the target of non-CO_2 emission reduction in China's next INDC. It has been reported that the current energy policies and measures have steadily helped China obtain policy or emission space to reduce its non-CO_2 GHG emissions.[997] Including ambitious and precise targets for non-CO_2 GHG emissions in its next INDC will not set an excessive burden but might bring significant environmental and

[989] See above Part I of Chapter 5.
[990] Burck et al (n 915) 20–21.
[991] Xi Jinping, 'Xi Jinping's Speech to 19th CPC National Congress' (n 797).
[992] According to China's Statistical Communique on National Economic and Social Development, the total energy consumption of China increased 3.3% in 2018: see National Bureau of Statistics, '《2018 年国民经济和社会发展统计公报》 [Statistical Communique of the People's Republic of China on the 2018 National Economic and Social Development]' (National Bureau of Statistics of the People's Republic of China, 28 February 2019).
[993] Climate Transparency, *Brown to Green: The G20 Transition to a Low-Carbon Economy – China* (Climate Transparency, 2018).
[994] The likelihood of China continuing an intensity-based approach is high: see 'China Set to Drop Absolute Emission Cap on ETS, Says Government Advisor', *Carbon Plus* (Web Page, 27 September 2019) <https://carbon-pulse.com/83117/>.
[995] Climate Transparency and Energy Research Institute (n 719).
[996] The Foreign Minister of China Wang Yi has suggested replacing the energy consumption cap with a carbon emissions cap when drafting the 14th FYP of China: see Baxter and Yao (n 864).
[997] Song views that it is feasible for China to reduce an additional 1.5–3.0 Gt cumulative CO_2 equivalent emissions from non-CO_2 GHGs by 2030: see Ranping Song, 'Opportunities to Advance Mitigation Ambition in China: Non-CO2 Greenhouse Gas Emissions' (Working Paper, World Resource Institute, June 2019) 28–9.

developmental benefits to China.[998] Hence, China should scale up its international commitments by establishing ambitious and precise targets for non-CO_2 GHG emission reduction in its next INDC.

B *Tightening Its Energy Policies on Coal Energy*

In terms of its domestic actions on climate change, an emerging task for China in response to climate change is to restore its tightened energy policies on coal energy. To decrease its dependence on coal in its energy mix, China issued a series of policies to halt or suspend coal power generation investment between 2016 and 2017.[999] It is estimated that China cancelled and suspended coal power projects up to 90 GW of capacity during this period.[1000] However, a recent report shows that China has loosened its energy policies on coal consumption by steadily restarting the suspended coal-fired power plants.[1001] The re-opening of coal power plants has increased the coal power capacity of China, which appears to depart from the global expectation of China to enhance its ambition to meet the long-term temperature goals, and conflicts with its recent efforts and actions on the reduction of coal consumption in its energy structure.[1002]

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[998] On the environmental and developmental benefits arising from mitigating non-CO_2 GHG emissions, see Song (n 997) 25. See also Yan Bo, 'Opportunities to Enhance Non-Carbon Dioxide Greenhouse Gas Mitigation in China' (Working Paper, World Resource Institute, May 2016) 27.

[999] These policies include 《关于促进我国煤电有序发展的通知》 [Notice on Promoting the Orderly Development of Coal Power in China] (17 March 2016); 《关于建立煤电规划建设风险预警机制暨发布 2019 年煤电规划建设风险预警的通知》 [Notice on Establishing Risk Early Warning Mechanism for Coal Power Planning and Construction] (20 April 2016); 《关于进一步规范电力项目开工建设秩序的通知》 [Notice on Further Standardizing the Order of Construction of Power Projects] (8 August 2016); 《关于取消一批不具备核准建设条件煤电项目的通知》 [Notice on Cancelling a Batch of Coal-Fired Power Projects That Do Not Have the Approved Construction Conditions] (15 September 2016); 《关于进一步调控煤电规划建设的通知》 [Notice on Further Regulation of Coal Power Planning and Construction] (10 October 2016); 《关于推进供给侧结构性改革,防范化解煤电产能过剩风险的意见》 [Opinions on Promoting the Structural Reform of the Supply Side and Preventing the Overcapacity of Coal-Fired Power Generation] (26 July 2017); 《关于印发 2017 年分省煤电停建和缓建项目名单的通知》 [Notice on Printing and Distributing the List of Cancelled and Suspended Coal Power Projects in 2017] (26 September 2017).

[1000] Mengjia Ren et al, 'Why Has China Overinvested in Coal Power?' (Web Page, 18 February 2020). <https://www.andrew.cmu.edu/user/bkovak/RBKAY_China_Coal.pdf> 3. However, it is also argued that the capacity that was cancelled only constitutes a small share of the total capacity under construction in this period: see David Robinson and Xin Li, 'Closing Coal in China: International Experiences to Inform Power Sector Reform' (Working Paper, Smith School of Enterprise and the Environment, February 2017) 28.

[1001] China increased its coal fleet by 42.9 GW from January 2018 to June 2019: see Christine Shearer, Aiqun Yu and Ted Nace, 'Out of Step: China is Driving the Continued Growth of the Global Coal Fleet' (Global Energy Monitor, November 2019) 3.

[1002] Ibid 12–3. According to the report of Shearer et al, China needs to reduce its coal fleet to 600 GW by 2030 to meet the 2 ℃ target and to reduce its coal fleet to 360 GW by 2030 to meet the 1.5 ℃ target.

Owing to the price advantage and large amount of coal reserves in China, coal-fired power is economically attractive for China.[1003] China's current energy structure is still coal-intensive,[1004] although it has heavily invested in developing renewable energies.[1005] Therefore, China's energy policies in reducing coal-fired power generation are very challenging in practice.[1006] In recent years, China's GDP growth has fallen from the historically highest double-digit growth rate to a rate around 6%,[1007] the 'China-US trade friction' has put increasing pressure on China's economic development,[1008] and the global pandemic has further aggravated China's longer-term economic outlook.[1009] The slowdown of the economy might lead to a decrease of GHG emissions; however, it might demotivate China to enhance its domestic actions and international cooperation on climate change.[1010] In the face of an economic downturn, China might give priority to the maintenance of its GDP and employment growth rate above a certain level, and slow down its efforts and momentum to replace coal consumption with clean energies to stimulate its economy and stabilise employment in the coal regions.[1011] For instance, the purpose of the recent re-opening of coal-fired power plants was to stimulate economic development and employment growth in China.[1012]

[1003] Hao notes that coal is vital to the economic development and social stability of China: see Hao Xuguang et al, 'De-Capacity Policy Effect on China's Coal Industry' (2019) 12(12) *energies* 1.

[1004] Coal power generation accounts for 67% of the power generation mix of China in 2018: see 'Coal 2019: Analysis and Forecasts to 2024', *IEA* (Web Page, December 2019) <https://www.iea.org/reports/coal-2019>. See also Tan and Lee (n 825).

[1005] See above in Part I of Chapter 5.

[1006] Robinson and Li (n 1000) 27–39.

[1007] The predicted GDP growth rate of China in the next several years will be under 6%: see Statista Research Department, 'China: Growth Rate of Real Gross Domestic Product (GDP) from 2011 to 2024' (Web Page, 23 September 2019) <https://www.statista.com/statistics/263616/gross-domestic-product-gdp-growth-rate-in-china/>.

[1008] According to the analyses of Liu et al, the 'US-china trade friction' has caused a decrease of China's GDP (0.21%), a growth of unemployment in 15 sectors and a welfare lost (approximately USD27 billion): see Lijing Liu et al, 'Environmental and Economic Impacts of Trade Barriers: The Example of China–US Trade Friction' (2020) 59 *Resource and Energy Economics* 6–7. See also 'US Trade War Undermining Chinese Efforts on Climate, says Official', *Climate Home News* (Web Page, 30 October 2019) <https://www.climatechangenews.com/2019/08/30/us-trade-war-undermining-chinese-efforts-climate-says-official/>; James Fernyhough, 'China Slowdown Threatens Paris Climate Goals', *Financial Review* (Web Page, 18 November 2019) <https://www.afr.com/policy/energy-and-climate/china-slowdown-threatens-paris-climate-goals-20191118-p53bh5>.

[1009] Stephen Bartholomeusz, 'Growing Pains: China's Surge Hit by Trump and the Pandemic', *Sydney Morning Herald* (Web Page, 25 May 2020) <https://www.smh.com.au/business/the-economy/china-s-rise-dealt-a-blow-by-trump-and-the-pandemic-20200525-p54w46.html>.

[1010] This is verified by Liu and her colleagues' study on the influences of the 'China-US trade friction' on China's GHG emissions: see Liu et al (n 1008) 13–14.

[1011] David Stanway, 'China Coal-Fired Power Capacity Still Rising, Bucking Global Trend: Study', *Reuters* (20 November 2019) <https://www.reuters.com/article/us-climate-change-china-coal/china-coal-fired-power-capacity-still-rising-bucking-global-trend-study-idUSKBN1XU07Y>.

[1012] Leslie Hook, 'Climate Change: How China Moved from Leader to Laggard -- Beijing's U-Turn on Renewables is Triggering Alarm Ahead of UN Meeting', *Financial Times* (Web Page, 25 November 2019) <https://www.ft.com/content/be1250c6-0c4d-11ea-b2d6-9bf4d1957a67>.

Economic development is vital for social stability and people's wellbeing in China, and therefore, it is treated as an important development agenda by the Chinese government.[1013] As outlined in Chapter 4, the reduction of GHG emissions is compatible with China's long-term interests in upgrading its energy consumption and optimising its energy structure.[1014] The continuation of old emission trajectories relying on the consumption of coal energy is costly for the sustainable development of China. For the sake of its long-term interests, China should keep consistency in its tightened policies on coal energy.

C *Regulating Its External Investments*

China has increased its investments in high-carbon projects in other countries, such as railways, ports, pipelines, transmission lines and power plants.[1015] These external investments may contribute to the economic development of the host countries,[1016] but the investments will cause the deterioration of environmental quality and climatic system of the host countries, and affect the global efforts to the stabilisation of GHG concentrations.[1017] Although China has identified some low-carbon development initiatives to 'green' its external investments under the Belt and Road Initiative ('BRI'),[1018] these initiatives are generally 'too voluntary to be effective, too duplicative to be adding value, and too opaque to be adequately assessed'.[1019] China has also made guidelines for its external investments under the BRI, such as the Guidelines for Environmental Protection in Foreign Investment and Cooperation and the Guidance on Promoting Green Belt and Road.[1020] These guidelines only set voluntary and vague principles for entities to participate in the BRI, with no specific implementation or

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[1013] Stalley (n 535) 2.

[1014] See above Part II(C)(1) of Chapter 4.

[1015] China invested roughly USD100 billion on high-carbon projects abroad between 2000 and 2014: see Isabela Neuweg, 'What Types of Energy Does China Finance with its Development Aid?', *London School of Economics* (Web Page, 21 June 2018) <http://www.lse.ac.uk/GranthamInstitute/news/china-energy-development-aid/>. It is also noted that China had been involved in 240 coal-fired power projects in 25 of the 65 countries along the Belt and Road regions, with a total installed capacity of 251,054 MW by the end of 2016: see Ren Peng, Liu Chang and Zhang Liwen, 'China's Involvement in Coal-Fired Power Projects along the Belt And Road' (Global Environmental Institute, May 2017).

[1016] David Sandalow and Xu Qinhua, 'Global Energy Dialogue: Belt and Road Initiative Green Development Conference' (SIPA Center on Global Energy Policy at Columbia University and SIS Center for International Energy and Environment Strategy Studies at Renmin University of China, November 2017) 8.

[1017] Some analysts even argue that China's investments in coal power plants are meant to transfer its own GHG emissions to other countries' territory: see Kara Sherwin, 'China is Outsourcing its Pollution', *Foreign Policy* (Web Page, 7 December 2016) <https://foreignpolicy.com/2016/12/07/chinais-outsourcing-its-pollution/>.

[1018] On the initiatives on 'green' development, see Sandalow and Xu (n 1016).

[1019] Lachlan Carey and Sarah Ladislaw, 'Chinese Multilateralism and the Promise of a Green Belt and Road' (CSIS Briefs, November 2019) 2.

[1020] *Guidelines for Environmental Protection in Foreign Investment and Cooperation*, Ministry of Commerce and Ministry of Environmental Protection (People's Republic of China) 18 February 2013; *Guidance on Promoting Green Belt and Road* (n 738).

accountability mechanisms 'for rewarding good performance or for disincentivizing poor behaviour'.[1021] To make the external investments coherent with its international commitments and the long-term temperature goals, China should go beyond hollow initiatives and vague guidelines to adopt precise and stringent enforcement rules and standards on its external investments.

D *Institutionalising Its Support to Other Developing Countries*

It is recommended for China to improve the transparency of its South-South Cooperation mechanism on climate change by establishing operationalised rules and procedures for information disclosure. As outlined above, China has committed to supporting other developing countries financially and technologically, and has established the preliminary operational mechanism of the South-South Cooperation on climate change.[1022] However, China provides support to other developing countries by mainly relying on bilateral or multilateral mechanisms outside the platforms of the UNFCCC.[1023] This approach allows flexibility in the design and implementation of the support programs based on the circumstances of both the recipient countries and China, but it might lead to unexpected problems in transferring and implementing support, such as the misuse of aids or lack of timely communication.[1024] This is not only detrimental to the implementation of China's support, but also invokes doubts about China's real motivations behind the cooperation programs and its reputation as a strong supporter of its 'brother countries' in the South.[1025] Thus, to promote the coherence of its foreign support with the normative requirements of international climate change law, China should clarify the operational procedures and rules of its support to other developing countries.

[1021] Ladislaw and Carey (n 988).

[1022] See above Part I of Chapter 5. See also Ma Tianjie, 'China Upgrades Climate Aid to the Global South', *chinadiolague* (Web Page, 20 September 2017) <https://www.chinadialogue.net/article/show/single/en/10086-China-upgrades-climate-aid-to-the-global-south>.

[1023] As Kastner et al stated, this is because China does not want to subject its voluntary financial and technology support to a mandatory international funding commitment: see Kastner, Pearson and Rector (n 468) 208.

[1024] Jacob Mardell, 'Foreign Aid with Chinese Characteristics', *The Diplomat* (Web Page, 7 August 2018) <https://thediplomat.com/2018/08/foreign-aid-with-chinese-characteristics/>.

[1025] 程诚 [Cheng Cheng],《中国援助非洲，和西方有哪些不同？》[Differences of Foreign Aid between China and the West], 中非合作论坛 [Forum on China-Africa Cooperation] (Web Page, 9 April 2018) <https://www.fmprc.gov.cn/zflt/chn/zfgx/t1549040.htm>.

E *Pushing Forward the Legislative Processes of the Climate Change Response Law*

Making a specialised law on climate change may institutionalise China's domestic actions and policies on climate change in the form of law with 'binding force, stability and predictability'.[1026] The promulgation of the Climate Change Response Law relies on solid political, scientific and social consensuses on how to resolve the climate change problems among various stakeholders, which have not been currently achieved in China, and there are many barriers to restrict the quick formulation of the Climate Change Response Law.[1027] However, this does not mean that the Climate Change Response Law is not worth pushing forward. At present, a large number of national and regional development plans, regulations and climate-related statutes in the fields of environmental protection, carbon trading markets and clean energies have been made and implemented with good outcomes, as shown above.[1028] These legislative activities have provided useful experiences or lessons for the establishment of the principles, mechanism and procedures of the specialised law on climate change.[1029] The progression of the Climate Change Response Law is based on adequate political and social necessities,[1030] but various stakeholders may play their part to promote the promulgation of the Climate Change Response Law through their continuous interactions. Strengthening the relevant studies, communications and propaganda can help coordinate various sectors or stakeholders to arrive at a consensus on the necessity and feasibility of the specialised law on climate change.[1031] Therefore, it is recommended that China should push forward the progression of the legislative activities of the Climate Change Response Law by all practical means and reflect the normative contents of international climate change law in the Climate Change Response Law.

[1026] Zhang, Jiang and Pan (n 982) 537.

[1027] Ibid 540–41. Zhang et al have pointed out the various barriers to delay this statute.

[1028] See above Parts (I) and (V) in Chapter 5.

[1029] 田丹宇[Tian Danyu], 《应对气候变化立法研究》[Study of Legislation on Climate Change] (2018) 172(3) 世界环境 *World Environment* 59–62; 李艳芳[Li Yanfang], 张忠利[Zhang Zhongli] and 李程 [LI Cheng] (n 980) 1–12.

[1030] Iacobuta et al argue that international climate change negotiations stimulate or enable domestic legislative processes: see Gabriela Iacobuta et al, 'National Climate Change Mitigation Legislation, Strategy and Targets: A Global Update' (2018) 18(9) *Climate policy* 1131.

[1031] 赵宇[Zhao Yu], 《我国应对气候变化面临的问题和突围之道》[Problems and Solutions to the Climate Change Problems in China], 光明理论 [Guangming Online] (Web Page, 21 November 2019) <https://theory.gmw.cn/2019-11/21/content_33337617.htm>.

F *Enhancing the Reliability of Its Domestic Reporting and Review Processes*

Against the backdrop that China is establishing its nationwide emission trading markets ('ETMs'), the accuracy and reliability of reported information on GHG emissions are significant for the operational quality of the ETMs.[1032] In the absence of an effective MRV mechanism, the relevant information may be manipulated or misreported by enterprises or local governments, and therefore, participants of the ETMs may lose confidence in its fairness and reliability.[1033] China has adopted several policies and measures to progressively promote a transparent operation of the ETMs. For instance, China has made nationwide emission reporting and monitoring guidelines by referring to the 2006 IPCC Guidelines.[1034] Under these

[1032] China has established a preliminary mechanism for its national carbon emission trading in recent years. In 2012, the NDRC promulgated Administrative Measures for the Registry of China's Greenhouse Gas Voluntary Emission Reduction Program, through which a preliminary system of Chinese Certified Emission Reduction was established: see 《温室气体自愿减排交易管理办法》 [Administrative Measures for the Registry of China's Greenhouse Gas Voluntary Emission Reduction Program], NDRC (People's Republic of China) June 2012. In 2013, seven pilot carbon markets were established in Hubei, Guangdong, Beijing, Tianjin, Shanghai, Chongqing and Shenzhen to gain some useful experiences: see Liu Zhe and Zhang Yongxiang, 'Assessing the Maturity of China's Seven Carbon Trading Pilots' (2019) 10 *Advanced in Climate Change Research* table 2. In 2014, the first formal legislative regulation in relation to carbon trading, namely Interim Measures for the Administration of Carbon Emission Permit Trading, was promulgated by the NDRC: see 《碳排放权交易管理暂行办法》 [Interim Measures for the Administration of Carbon Emission Permit Trading] NDRC (People's Republic of China) 10 December 2014. In 2017, the NDRC promulgated the Program for the Establishment of a National Carbon Emissions Trading Market (Power Generation Industry), by which the first national carbon emission trading mechanism was established in the electricity sector: see 《全国碳排放权交易市场建设方案(发电行业)》 [Program for the Establishment of a National Carbon Emissions Trading Market (Power Generation Industry)], NDRC (People's Republic of China) 18 December 2017. In the same year, the NDRC determined the establishment of carbon emission reporting, review and supervision plans on the eight sectors in 2016 and 2017, preparing for the expansion of the national carbon emission trading mechanism to other sectors: see 《关于做好2016、2017 年度碳排放报告与核查及排放监测计划制定工作的通知》 [Notice on Carrying out the Plans of Carbon Emission Reporting, Review and Supervision in 2016 and 2017] NDRC (People's Republic of China) 15 December 2017. In 2018, the People's Bank of China promulgated the Notice on Further Improving Cross-Border RMB Service Policies to Promote Trade and Investment Facilitation, permitted external investors to use RMB to engage in China's carbon trading markets: see 《关于进一步完善人民币跨境业务政策促进贸易 投资便利化的通知》 [Notice of the People's Bank of China on Further Improving Cross-Border RMB Service Policies to Promote Trade and Investment Facilitation] People's Bank of China (People's Republic of China) 1 April 2018. In 2021, the MEE released the Administrative Measures for Carbon Emission Trading (Trial) which are pilot rules for carbon emission trading management: see 《碳排放权交易管理办法（试行）》[Administrative Measures for Carbon Emission Trading (Trial)] Ministry of Ecology and Environment (People's Republic of China) 1 February 2021.

[1033] Information manipulation, such as inflated results, underreporting failures or fake data, may be invoked due to the lack of a domestic transparency system: see Craig A Hart, 'From Paris to Beijing: Implementing the Paris Agreement in the People's Republic of China' (Research Report, Atlantic Council, 2019) 23.

[1034] Currently, 24 sectors are covered by the national monitoring and reporting guidelines: see *The Issuance of the Initial Instalment of 10 Industries and Enterprises Greenhouse Gas Accounting Methods and Reporting Guidelines (Trial)*, NDRC (People's Republic of China) October 2013; *Notice on Issuing GHG Emission Accounting Methods and Reporting Guidelines for Enterprises of the Second Four Industries Involved (Trial)*, NDRC (People's Republic of China) December 2014; *The Issuance of the Third Instalment of 10 Industries and Enterprises*

guidelines, 'key enterprises' are required to report their GHG emissions since 2014,[1035] and the authenticity of reported data and information is assessed by provincial authorities through sampling and other means.[1036] However, the MRV mechanism in China is still in an initial stage, and the current efforts of China are regarded as being insufficient to ensure a high degree of integrity of reporting in the ETMs.[1037] The core problem, as viewed by Zhang, is the lack of a robust legal framework that determines the detailed rules for the operation of the ETMs.[1038] To promote the operationalisation of the ETMs, it is necessary for China to strengthen the transparency rules and procedures in its domestic legal systems, and to ensure the reliability of its domestic reporting and review processes.

In addition, capacity constraint is one of the largest hurdles for China to build a credible MRV system.[1039] China has not institutionalised its national GHG inventory preparation, and its reporting and review work is still facing multiple challenges in terms of finance, technology, personnel and inter-government coordination.[1040] The emerging task for China is to comprehensively improve its technical and institutional capacities to implement the enhanced transparency framework of the Paris Agreement at a considerable pace. To improve its technical capacity, China needs to adopt the latest IPCC methodology and quantitative assessment methods and systems in its domestic reporting and review processes. To enhance its institutional capacity, China should establish an authoritative institution to take charge of the preparations of reports, instead of granting individual expert groups to draft the relevant reports

Greenhouse Gas Accounting Methods and Reporting Guidelines (Trial), NDRC (People's Republic of China) July 2015.

[1035] The key enterprises are defined as the companies, enterprises or independent identities that their CO_2 emissions reach 13,000 tonnes in 2010, or their comprehensive energy consumption equals to the amount of 5,000 tonnes standard coal in 2010: see《关于组织开展重点企(事)业单位温室气体排放报告工作的通知》[Notice on the Preparation of GHG Emission Reports of Key Enterprises (Institutions)], NDRC (People's Republic of China) 13 January 2014.

[1036] 'The People's Republic of China First Biennial Update Report on Climate Change' (n 945) 110.

[1037] Qian et al point out the problems regarding the institutional and legal framework, technical standards, competences of third-party verification companies and capacity-building occurred in China's national carbon markets: see Qian Guoqiang, Hu Xiaoming and Jin Yaning, 'Constructing China's MRV System: Leveraging Finance for Green Policy Briefs' (Paulson Institute, September 2018) 7–8. In addition, data falsification has always been one of major concerns of China: see Lauri Myllyvirta and Fergus Green, 'China's Carbon Emissions Trading Scheme: Smoke and Mirrors', *The Interpreter* (Web Page, 17 October 2019) <https://www.lowyinstitute.org/the-interpreter/china-s-carbon-emissions-trading-scheme-not-where-action>.

[1038] The lack of a national legislation causes uncertainty for the investments of industries and undermines the prospects of China's trading pilot programmes: see Hao Zhang, 'China's Legal Framework for Emission Trading and other Market Initiatives' in Alexander Zahar, Hao Zhang and Xiangbai He (eds), Climate Change Law in China in Global Context (Taylor & Francis Group 2020) 101–2.

[1039] Qian, Hu and Jin (n 1037) 8.

[1040] Briner and Moarif (n 427) 34; Yamide Dagnet et al, 'Building Capacity for the Paris Agreement's Enhanced Transparency Framework: What Can We Learn from Countries' Experiences and UNFCCC Processes?' (Working Paper, World Resources Institute, March 2019) 22–5.

separately.[1041] The enhanced capacities of China will make it better prepared for the upgraded requirements of reporting and review under the enhanced transparency framework of the Paris Agreement and its Rulebook.

[1041] 王田 [Wang Tian], 董亮[Dong Liang] and 高翔 [Gao Xiang] (n 448) 691.

CHAPTER 6 CONCLUSIONS

This thesis has formulated an analytical framework, the interactional account, to investigate China's interactions with international climate change law. Under the interactional account, the normativity of international law is the obligatory forces of international law exerted towards individual countries, and the normativity of international law rests on a strong foundation of shared understandings, the development of the normative qualities of international law and the reception of individual countries to the normative qualities.[1042] By following the analytical framework, this thesis has evaluated the status of shared understandings in the UN climate regime, the development of the six normative qualities of international climate change law and China's perspectives of the normative qualities. This chapter concludes this thesis by summarising the main findings of this project and presenting the general implications of the interactional account for the understandings of China's interactions with international law.

I MAIN FINDINGS OF THE THESIS

The main findings of this thesis include (a) the status of the shared understandings in the UN climate regime remains at a 'thin' layer; (b) the development of the normative qualities of the Paris Agreement and its Rulebook in allocating responsibility is still restricted due to the contentious understandings of individual countries in the UN climate regime and (c) China has played an important role in promoting the normative role of international climate change law; however, there is considerable potential for improvement concerning its negotiation position and domestic practices.

A *Shared Understandings in the UN Climate Regime Remain at a 'Thin' Layer*

This thesis finds that, as the evolution of the various phases of international climate change negotiations, the consensus-based UN climate regime has been established, the scientific certainty of anthropogenic climate change has been achieved, and the core subject matters of international climate change law have been generally formed. However, the shared understandings achieved in the UN climate regime regarding the allocation of responsibility are still at a 'thin' layer. The 'thin' shared understandings are inadequate to lead to an agreed formula or standard for responsibility allocation among individual countries that have divergent perspectives and priorities. Various groups of individual countries interpret the fairness of

[1042] See above Part II of Chapter 2.

responsibility allocation differently based on their national interests and domestic preferences. The principle of CBDR serves to differentiate responsibility among individual countries based on various dynamic factors; however, the vagueness of the principle of CBDR, because of the lack of solid shared understandings, leaves the contentions over responsibility allocation still unresolved. The 'thin' shared understandings undermine the effectiveness of international cooperation against climate change and make international climate change law containing a strong and lasting normativity unattainable.

B *Development of the Normative Qualities of International Climate Change Law is Still Restricted*

Due to the lack of solid shared understandings in the UN climate regime, the development of the normative qualities of the Paris Agreement and its Rulebook is still restricted. The issues that arise are:

• Regarding the fairness of international climate change law, a context-based self-differentiation approach to responsibility allocation has been established in the Paris Agreement and its Rulebook, which allows developed countries to determine the extent of the ambitions of their commitments voluntarily. This will consequently pull back the role of the principle of CBDR in maintaining corrective and distributive fairness, and will undermine the ambitions of the global response to climate change.

• In terms of the determinacy and stringency of international climate change law, the Paris Agreement and its Rulebook establish the facilitative nature of the commitments of individual countries, through which they can set out the contents of their INDCs by themselves, and bypass their commitments due to the facilitative nature of INDCs.

• Regarding the transparency of international climate change law, the Paris Agreement and its Rulebook lay out a set of common transparency requirements applicable to both developed and developing countries, but the common transparency requirements fail to fundamentally change the nationally determined nature of INDCs. This not only reduces the transparency requirements of international climate change law on developed countries, but also causes loopholes for some countries to evade their responsibilities.

• The Paris Agreement and its Rulebook have successfully brought a broad range of state actors and non-state actors together to negotiate a wide range of issues regarding international climate change cooperation. However, the determinacy and stringency of responsibility

allocation have been traded off during this process, and the role of non-state actors in the formal processes of international lawmaking is still largely restricted.

• In terms of the coherence of the UN climate regime with other climate-related regimes, some objectives and concepts of other regimes have been reflected in international climate change law, but these objectives and concepts are framed in general and recommendatory terms. In addition, the interactions of the UN climate regime and other climate-related regimes only focus on information exchange and technology collaboration due to the lack of a consensus on how to proceed their interactions with concrete operationalised mechanisms.

By analysing the texts of the Paris Agreement and its Rulebook, this thesis concludes that the normative qualities of international climate change law have not been fully realised, and therefore, international climate change law does not exert strong normative forces to individual countries in terms of the allocation of their responsibility on climate change. The 'thin' shared understandings and the underdevelopment of the normative qualities of international climate change law are rooted in the lack of a political consensus of responsibility allocation among individual countries. Therefore, the normative contributions and buy-in of individual countries based on their understandings of the fairness of responsibility allocation are of significance for the investigation of how the normative role of international climate change law is generated and developed in the UN climate regime.

C *China's Negotiation Position on the Normative Qualities of International Climate Change Law*

This thesis has drawn the contributions and shortcomings of China's negotiation position on the normative qualities of the Paris Agreement and its Rulebook, and has presented recommendations for China to promote the normative qualities of international climate change law:

• China has accepted the common responsibility system under the context-based self-differentiation approach; however, it still treats the principle of CBDR and the collective interests of developing countries as the foundation of its fairness discourses.

• China adheres to the facilitative and nationally determined nature of INDCs, and claims for determinate and stringent obligations of support from developed countries. Although it is consistent with the principle of CBDR, China's negotiation position cannot promote the

determinacy and stringency of international climate change law in terms of responsibility allocation.

• China played a constructive role in the successful adoption of the enhanced transparency framework of the Paris Agreement and its Rulebook. Although there is still ample room for improvement, its concession to the common transparency requirements with a nuanced differentiation is certainly a significant compromise of China's negotiation position.

• China supports multilateralism in international climate change negotiations and seeks to enlarge the scope of negotiation issues to reflect the concerns of developing countries.

• China has also contributed to the coherence of international climate change law by maintaining the coordination of the UN climate regime with other climate-related regimes and promoting the principle of CBDR to be followed by other climate-related regimes.

China's negotiation position is determined by its domestic understandings of climate change problems, and perceptions of its international identity, power status and national interests. The solid domestic understandings of anthropogenic climate change in China, and its responsible-power identity and broadened national interests, together lead China to concede to the common responsibility system and the enhanced transparency arrangement, which is a significant compromise of China's negotiation position on the fairness and transparency of international climate change law. In addition, the developing-country identity of China legitimises its negotiation position which adheres to the facilitative and nationally determined nature of INDCs. Although China agrees to make greater contributions to the global response to climate change, it has always been supporting the principle of CBDR and multilateralism in international climate change negotiations. Due to its developing-country identity, China focuses more on the fairness, inclusiveness and coherence of international climate change law than other normative qualities. China has made significant contributions to the normative qualities of international climate change law in general, but the role of China is limited in many regards. Therefore, some practical recommendations have been proposed in this thesis:

• To promote the fairness of international climate change law, it is recommended for China to continue to adhere to the principle of CBDR, support multilateralism in international climate change negotiations, and timely upgrade the ambitions and determinacy of its subsequent INDC targets.

• To promote the determinacy, stringency and transparency of international climate change law, China should significantly strengthen the operationalisation of international climate change law by working on clarifying the abstract principles and general mechanisms established in the Paris Agreement and its Rulebook.

D *China's Domestic Practices of the Normative Qualities of International Climate Change Law*

China's domestic practices have also been studied in this thesis to examine whether it has implemented its international commitments and treaty obligations. China has achieved its pre-2020 commitment targets, implemented its existing reporting obligations, and submitted its pre-2030 commitment targets. China's pre-2030 commitment targets are not business-as-usual targets but represent significant progress of China's international commitments to the global response to climate change from the perspectives of its capability and the abatement costs that it will pay for the implementation of the INDC targets. However, China's pre-2030 targets and actions are far from being precisely and stringently established, and the ambitions and precision of its pre-2030 targets are inadequate to meet the long-term collective temperature goals. The new realities of global climate change and the continuous increase of its domestic GHG emissions require China to commit more ambitiously and precisely to address climate change problems; the enhanced transparency framework of the Paris Agreement and its Rulebook require China to improve its capacity in implementing its reporting obligations; and to institutionalise its national actions on climate change at the level of law, China needs to promote the legislative processes of the Climate Change Response Law.

This thesis reveals that China has played an important role in the normative constructions of international climate change law, while great room still exists for improvement regarding its negotiation position and domestic practices. The development of China's domestic contexts fundamentally influences its attitudes towards the normative role of international climate change law. With the further enhancement of its international identity and power status, China may be more willing to provide public goods to international communities and to shoulder greater responsibility to the global response to climate change. China's identity as a responsible power requires it to step up to build global confidence for international cooperation on climate change, and the institutional advantages of China may promote it to take more active domestic actions on climate change. It is certainly unrealistic and illegitimate to ask China to burden international responsibility beyond its capability and without the consideration of its domestic

circumstances; however, it is expected that China will play a more active role in promoting the operationalisation of international climate change law and in coordinating various groups of countries to move towards the long-term global temperature goals established in the Paris Agreement. At the General Debate of the 75th Session of the UN General Assembly in 2020, Chinese President Xi Jinping promised to 'have CO_2 emissions peak before 2030', and to 'achieve carbon neutrality before 2060'.[1043] These new pledges made by Chinese top leader represent the enhanced political willingness and declaration of China to strengthen its actions on climate change, and make the achievement of the global temperature goals more promising. The enhanced domestic contexts may promote China to play a leading role in the development of international climate change law in the future.

II GENERAL IMPLICATIONS OF THE INTERACTIONAL ACCOUNT

A *Merits of the Interactional Account in Explaining the Mutual Influences between China and International Law*

The interactional account of international law is instructive for scholars, policymakers and international lawyers to comprehensively understand the normative role of international law for China because it combines both the objective and subjective aspects of the normativity of international law. Legitimacy is the objective aspect of international law, manifesting why international law is normative towards individual countries. By highlighting the legitimacy of international law, the interactional account shows that international law is normative to China because it is legitimate. This makes the sceptical views of the normative role of international law untenable, and makes the argument that international law does not work at all in international relations groundless.[1044] Although international law is generally fragmented or non-enforceable, few countries can absolutely reject the status or role of international law in international relations.[1045] Instead, the international world has always operated under the governance of international law. For China, international law has played an irreplaceable role

[1043] 《习近平在第七十五届联合国大会一般性辩论上的讲话》[President Xi Jinping's Statement at the General Debate of the 75th Session of the United Nations General Assembly], *Xinhuanet* (Web Page, 22 September 2020) <http://www.xinhuanet.com/politics/leaders/2020-09/22/c_1126527652.htm>.

[1044] International law has self-constituting values such as efficacy, obligation and objectivity: see Joshua Kleinfeld, 'Skeptical Internationalism: A Study of Whether International Law Is Law' (2010) 78(5) *Fordham Law Review* 2510–22.

[1045] Although international law can be instrumentally used by individual countries, they cannot completely deny the existence of international law: see 王江雨 [Wang Jiangyu] (n 24) 3–17.

in its development and international communications.[1046] China has a responsibility to uphold the authority of international law, to exercise its rights in accordance with international law, and to fulfil its international obligations in good faith.[1047]

Under the interactional account, local reception of the legitimacy of international law is the subjective aspect of international law. The normativity of international law is generated and developed when international law is legitimate, and the legitimacy of international law is continuously observed and practised by China. By highlighting the local reception of the legitimacy of international law, the interactional account avoids making the discussion of the normativity of international laws become a cheap-talk in the practices of international relations. China is an important stakeholder of the international governance. As the increase of its national strength and power status, China is no longer satisfied with being a norm-taker that is forced to accept the international laws that are made without the participation of China.[1048] Instead, China is seeking to become a norm-maker or norm-shaper in global governance.[1049] To become a norm-maker, China's perceptions and interests should be considered in the making, interpretation and implementation of international law,[1050] and it has a fair opportunity to influence the making of international law and reject the double standards and selective application of international law.[1051]

It is worth noting that China's perspective only represents one of various perceptions of individual countries on the normative role of international climate change law. This thesis neither seeks to give pre-eminence to China's perspective of international climate change law nor highlights or exaggerates the degree to which China's perspective constitutes the shared

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[1046] 杜焕芳[Du Huanfang] and 李贤森[Li Xiansen],《人类命运共同体思想引领下的国际法解释:态度、立场与维度》[The Interpretation of International Law under the Idea of "A Community of Shared Future for Mankind": Attitude, Position and Dimension] (2019) (2) 法制与社会发展 *Law and Social Development* 171.

[1047] This has been concurred by Chinese President Xi Jinping: see Xi Jinping, 'Speech at UN Office in Geneva' (n 722).

[1048] China has undergone a profound transformation from 'a victim-minded underdog in the old international legal system' to a rising power: see James Li Zhaojie, 'Commentary on "China and the International Legal System: Challenges of Participation"' (2007) (191) *China Quarterly* 716–9. Callahan argues that China has its own understandings of its role in the world and its own approaches to its modernity: see Callahan (n 796) 33–55.

[1049] It is viewed by Pu that China has been a norm-shaper in many issue areas, such as humanitarian intervention, climate change, international finance governance: see Pu (n 65) 342.

[1050] For instance, China has used its normative discourses to influence the development of the concept of 'Responsibility to Protect' (R2P), and adjusted its position in defining and applying this concept in different humanitarian intervention cases: see Rosemary Foot, 'The Responsibility to Protect (R2P) and its Evolution: Beijing's Influence on Norm Creation in Humanitarian Areas' (2011) 2(6) *St Antony's International Review* 47–66. However, many analysts argue that China still does not have adequate power or capability to fundamentally reshape the international governance order: see David Shambaugh, *China Goes Global: The Partial Power* (Oxford University Press, 2013).

[1051] Xi Jinping, 'Speech at UN Office in Geneva' (n 722).

understandings achieved in the UN climate regime. International climate change law is not solely or specifically shaped by China, and many other countries such as the countries from the EU play a more important role in international climate change negotiations.[1052] Among various international actors and their diverse perceptions of international climate change law, China's perceptions and practices only reflect its own identities or the perspectives of the like-minded countries within the developing-country group. Therefore, the chapters regarding China's perspective by and large belong to a case study explaining China's engagement in the normative construction of international climate change law rather than overstating its leading role in formulating international legal norms regarding climate change. The interactional account of international law recognises the multiple layers of interactions among various international actors and looks beyond state actors toward non-state actors on the international plane.[1053] In view of the diversity of international actors in collectively shaping international law-making as highlighted by the interactional account, the scope of this thesis is narrow by mainly focusing on China's perspective. For the explanation of the normativity of international climate change law to succeed, various perceptions of international actors should be comprehensively presented. A lack of space in this thesis does not allow further treatment of the perspectives of other major international actors or groups of countries here, but they are worth investigating comprehensively in the future.

B *Be Cautious of both Western Centrism and Chinese Exceptionalism in China's Interactions with International Law*

If shared understandings may be formed through interactions, then it is critical not to persist in extreme positions or viewpoints during interactions, but to provide spaces or opportunities for continuous interactions. The interactional account offers an insight for future research of China's interactions with international law by stressing the relevance of continuous interactions and shared understandings, and to avoid falling into both Western centrism and Chinese exceptionalism.

International law has been developed based on Western legal traditions,[1054] which is regarded

[1052] Clara Brandi, 'EU Climate Leadership? Europe's Role in Global Climate Negotiations' in Claus Leggewie and Franz Mauelshagen (eds), *Climate Change and Cultural Transition in Europe* (BRILL, 2018) 219–244.
[1053] Brunnée and Toope, *Legitimacy and Legality* (n 80) 116.
[1054] Kurt Taylor Gaubatz and Matthew MacArthur, 'How International is "International" Law?' (2001) 22(2) *Michigan Journal of International Law* 277.

as mainly reflecting the vested interests of Western powers.[1055] Although the diversity of international law appears to emerge due to the participation of developing countries in the making of contemporary international law,[1056] Western centrism, institutionalising Western powers' dominant legal traditions and interpretations in the structures and discourses of international law, is still not uncommon in international law.[1057] Western centrism arguably hides the 'ideological and structural biases' of Western powers in the seemingly sophisticated legal techniques and procedures of international law, without adequately considering the local characteristics of non-Western actors.[1058]

With the rise of its power status, China is now more confident to challenge the status quo powers in international lawmaking and interpretation. The enhancement of its power status might enable China to mitigate the 'structural biases' existed in the Western-centred international law, and to highlight its particularities in terms of historical experiences, cultural traditions and national interests.[1059] China's interactions with international law should be researched based on its domestic circumstances and taking into account its various perspectives, but it is misleading to highlight Chinese exceptionalism, which is also regarded as 'self-centred'[1060] and superior over other countries or legal systems.[1061] Although Chinese exceptionalism is generally defensive and less missionary compared with American exceptionalism, it is still full of Sino-centric ideas and narratives.[1062] The self-centred narratives may invoke the suspicions of other countries of the rise of China by seeing China as a new hegemon seeking to dominate international law and order. This not only misleads international audiences in comprehensively understanding China's international identity, but also reduces the 'negotiation space and political choice' of China in its interactions with the world.[1063]

[1055] Anlei Zuo, 'China's Approaches to the Western-Dominated International Law: A Historical Perspective from the Opium War to the South China Sea Arbitration Case' (2018) 6(1) *The University of Baltimore Journal of International Law* 21-55.

[1056] Diane Desierto, 'Remaking Globalization for the Local: The Real Search for Equality and Diversity in International Law', *EJIL: Talk!* (Web Page, 9 November 2016) <https://www.ejiltalk.org/remaking-globalization-for-the-local-the-real-search-for-equality-and-diversity-in-international-law/>.

[1057] Salvatore Caserta, 'Western Centrism, Contemporary International Law, and International Courts' (Working Paper No 187, iCourts, June 2020) 3–4.

[1058] The Third World Approach to International Law has figured out how the Western powers dominate the discourses of the international order through international law: see Antony Anghie, *Imperialism, Sovereignty and the Making of International Law* (Cambridge University Press, 2005).

[1059] The rise of China could be an opportunity to rectify the 'structural biases' existed in the Western-dominated international law: see Zuo (n 1055).

[1060] Feng Zhang, 'The Rise of Chinese Exceptionalism in International Relations' (2011) 19(2) *European Journal of International Relations* 320.

[1061] Cai (n 45) 326; Benjamin Ho, 'Understanding Chinese Exceptionalism: China's Rise, its Goodness, and Greatness' (2014) 39(3) *Alternatives: Global, Local, Political* 166.

[1062] Zhang (n 1060) 305.

[1063] Ho (n 1061) 165.

As correctly stated by Brunnée and Toope, international law is not 'a measure of who has the biggest stick'.[1064] Powers influence the making and implementation of international law, but powers still need international law to justify their behaviours. An appropriate interaction between powers and international law should avoid the excessive application of legal exceptionalism, because it may invoke resentments from other countries, undermine the collective efforts of international societies to maintain a just international order, and thereby, corrode the normativity of international law.[1065] Therefore, the future research of China's interactions with international law should reject both Western centrism and Chinese exceptionalism, and take into account both the legitimacy of international law and China's own circumstances. In its interactions with international law, it is wise for China to pursue its national interests and power status by accepting, shaping or transforming international law rather than imprudently rejecting the normative role of international law. International law may be imperfect, and it may also be influenced by self-interested powerful countries, but the normative role of international law should not be overlooked. After all, if international law were only a reflection of the interests or preferences of powerful countries, the very concept of the normativity of international law would no longer exist.

[1064] Brunnée and Toope, *Legitimacy and Legality* (n 80) 5.
[1065] Ibid 3–5.

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