

**Robert Falkner and Barry Buzan (2022): 'Introduction'**  
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**Abstract**

What role do great powers play in the international politics of climate change, and what are their special responsibilities with regard to climate change mitigation and adaptation? How does international power asymmetry intersect with the global climate crisis? Should great powers play a more prominent role internationally and take on more great power responsibility for the global climate? Or are they better seen as 'great irresponsibles', given their poor record of climate leadership in the past? The study of global environmental politics has highlighted the important impact that global inequalities have on environmental policymaking, but questions of power asymmetry in international relations, the nature of states' environmental power, and what counts as a great power in the environmental field, have not attracted the kind of systematic attention that they deserve. This book seeks to fill these gaps, and this introductory chapter introduces the main themes and central questions that the contributions to this book address.

**Keywords**

climate change, environmental power, great power, great power responsibility, international leadership, global environmental politics, power asymmetry, special responsibilities.

Climate change is one of the most pressing global challenges of the twenty-first century. To avert catastrophic global warming, international society needs to take urgent, and internationally coordinated, action. Although virtually all nations are united in their desire to tackle the man-made causes of global warming, they have yet to reverse the long-term trend of rising greenhouse gas (GHG) emissions. The Covid-19 pandemic provided temporary relief in that it led to a drop in global emissions by up to 7% in 2020 (UNEP, 2020), but the post-pandemic economic recovery seems likely to return the world to a path of rising emissions again. As yet, states' climate policy intentions and emission pledges have proved to be inadequate.

Climate change is a truly global problem, requiring all nations to undertake mitigation and adaptation measures. At the same time, the responsibility for causing the problem is unequally distributed, as is the capacity to respond to the climate threat in an effective manner. Two-thirds of current global emissions originate from just 10 major economies, and by and large it is the same countries that also have the economic and technological clout to develop and finance the required global solutions. Climate change and international power inequality are thus closely entwined. Indeed, if the major emitters were to act decisively and

in a coordinated manner, the chances of averting a climate catastrophe would be much improved. By the same token, even if only some of them fail or refuse to act responsibly, the world faces a bleak future.

The International Relations (IR) literature on global environmental politics (GEP) has tended to acknowledge, implicitly at least, the important role that a few select major powers play, either as international leaders that set an example for others and shape international environmental agendas, or as veto players that block progress in multilateral environmental negotiations (Kelemen and Vogel, 2010; Liefferink and Wurzel, 2017; Eckersley, 2020). GEP scholarship has also highlighted the inherent inequalities that structure the environmental policy area, both within societies and between them, and especially with regard to unequal levels of economic development and consumption levels (Roberts and Parks, 2007; Cipler, Roberts, and Khan, 2015). However, questions of power asymmetry in international environmental politics, the nature of states' environmental power, what counts as a great power in the environmental field, and whether great environmental power comes with special responsibilities have not attracted the kind of systematic attention in GEP that they deserve.

This book seeks to fill that gap. By connecting the IR literature on great powers and great power responsibility with GEP scholarship, it develops a new analytical perspective on international power inequality and the role of environmental great powers in GEP, with a special focus on international climate politics. The contributions to this volume develop and apply a conceptual framework for the study of environmental great powers and their special international responsibilities. They examine how individual great powers have responded to the global climate challenge and whether they have accepted a special responsibility for stabilizing the global climate. And they place emerging discourses on great power responsibility in the context of wider debates about international environmental leadership and climate change securitization.

### **Great Powers and the Global Climate Challenge**

The urgency of the climate change problem is now well understood. Man-made global warming, which is caused by GHG emissions from the burning of fossil fuels (coal, oil, gas) and land use changes (e.g. deforestation), has already led to a 1°C increase of average global temperatures since pre-industrial times. If current net emission trends continue unabated, the world is likely to face a global warming trend of between 3°C and 5°C by the end of the twenty-first century. The ecological consequences of such runaway global warming would be catastrophic. If left unchecked, climate change is expected to result in the melting of glaciers and rising sea levels, more extreme weather patterns, heat waves and wild fires even in arctic lands, the destruction of biologically diverse ecosystems, and changes in the amount, frequency, and intensity of precipitation. Some of these changes are already occurring (disappearance of glaciers, coral bleaching, wildfires) while others will only kick in at a later stage. The challenge for humanity is that the longer global warming is allowed to carry on,

the stronger future ecological stresses will be and the sooner we may reach ecological tipping points that lock in large-scale and irreversible environmental damage (Lenton et al., 2019; Dalby, 2020).

International society has recognized the threat that global warming poses to human well-being and prosperity. What is unclear, however, is whether the UN's multilateral climate regime can quickly enough come up with an effective response. The 197 countries that negotiated the 2015 Paris Agreement to the UN Framework Convention on Climate Change (UNFCCC) agreed to keep global warming to well below 2°C. In order to stay within this temperature target, they will need to bring GHG emissions under control, first by reaching a global emissions peak as soon as possible and then by bringing them down to reach a balance between GHG emissions and sinks (so-called net zero) by the second half of this century. All of this is to be achieved through a system of voluntary climate mitigation pledges that are to be reviewed internationally. The key question is whether the Paris Agreement's framework for ratcheting up national climate ambitions can set the world on the path towards deep decarbonization, and within a timeframe that keeps global warming below 2°C (Falkner, 2016b). The past record of multilateral efforts is far from encouraging. Issue complexity, institutional inertia, and diverging national interests have turned climate change into a 'wicked' global problem that seems to exceed the problem-solving capacity of environmental multilateralism (Levin et al., 2012; Keohane and Victor, 2016).

The shortcomings of UN-centred climate multilateralism have raised the question of whether an alternative, minilateral approach is needed to advance international climate mitigation. In climate change as much as in other global policy arenas, overcoming political and economic conflicts among the most powerful countries is a critical first step towards international cooperation. This also applies to multilateral regimes that grant every member an equal vote and make consensus-based decision-making the norm. In the WTO trade regime as much as in the UNFCCC climate regime, and indeed in the UN Security Council, some states are 'more equal' than others. As *The Economist* noted in the run-up to the UN Climate Summit in September 2019, with three-quarters of global GHG emissions coming from just 12 economies, a minilateral deal by the dozen 'great and middling-but-mucky powers' might 'break the impasse, pushing enough of the world onto a steeper mitigation trajectory to benefit all—and be widely emulated' (2019: 14). Similar calls for a minilateral solution have been issued by others too, particularly so since the 2009 Copenhagen conference, which failed to agree a legally binding successor treaty to the Kyoto Protocol (Falkner, 2016a: 88–89). Focusing international environmental negotiations on the few powers that really matter and that have the economic clout to solve global environmental problems is seen by some analysts as a way out of widespread multilateral gridlock (Naím, 2009; Victor, 2011; Nordhaus, 2015) that has bedevilled not just the climate regime but also other international environmental forums.

Irrespective of whether a minilateral solution to climate change is feasible, the spotlight that global warming throws on the world's leading powers raises broader questions about their role in global environmental politics. For various reasons, the great powers,

whether established or emerging, occupy a central place in debates around global environmental sustainability. Because their international power is invariably based on a large domestic economy and industrial base, great powers are usually a key source of global environmental degradation. Their oversized economic and ecological footprint gives them the power to inflict major harm on global ecological systems. At the same time, most great powers also possess significant technological and environmental capacities, as well as diplomatic clout and experience with international leadership. The great powers are thus central to any international effort to advance global environmental protection. They are, in other words, of systemic importance to global environmental sustainability.

Unsurprisingly, therefore, debates around the worsening climate crisis and how to avert it have raised questions about the environmental responsibilities of the most powerful nations. Most established great powers from the group of industrialized economies (e.g. US, Germany, UK, Japan) have already accepted some special responsibilities for the global environment, though they fail to agree on how far these responsibilities should go. Ever since the creation of the international environmental agenda in the 1970s, they have taken on more demanding environmental obligations and provided environmental aid to poorer countries, reflecting both their greater economic capability and larger historical responsibility. In recent years, emerging powers from the developing world (e.g. China, India, Brazil) have faced growing demands to make a greater contribution to global environmental protection. Although still officially classified as developing countries, they have come under pressure to redefine their position within GEP in line with the growing environmental footprint of their expanding economies. In the international climate negotiations, this has led to the emergence of more fluid international alliances and bargaining groups. The BASIC group (Brazil, India, South Africa and China), for example, emerged in 2009 and helped steer the climate regime in the direction of more balanced international mitigation efforts among all major emitters. Emerging powers may be defending their developing country status, but they cannot escape being asked to take on greater international responsibilities.

In this way, the global climate crisis has brought into sharper relief the vexed questions of how to define and differentiate global environmental responsibilities, and how these should apply to the world's leading powers. As yet, there is little consensus among the great powers, whether established or emerging, about these questions. However, as global warming accelerates and begins to threaten not just major ecological systems but also the national sovereignty of states (e.g. low-lying island states faced with rising sea levels) and the stability of the international order (e.g. intensified resource conflicts, disruptive migration flows), climate change may soon emerge as a systemic threat to international society that requires great powers to take on special managerial responsibilities. As yet, coordinated great power management (GPM) for climate change seems a distant possibility, and the great powers can mainly be described as 'great irresponsibles' when it comes to climate change mitigation. But 'events' could change that, and the question of how international power inequality intersects with the global ecological crisis, and what special role great powers should play, is already firmly established on the international agenda.

As mentioned above, great powers have had an ambiguous presence in the IR literature on GEP. It has long been assumed—implicitly if not always explicitly—that the world’s leading powers are deeply implicated in many global environmental problems. Simply by being major economies with an outsized industrial and military presence, great powers are often blamed for causing pollution and excessive consumption of natural resources. There is also a widespread sense that great powers are key to creating international rules for environmental protection, whether as environmental leaders or veto players. Talk of great powers as ‘the main actors in global environmental politics’ (Streck and Terhalle, 2013: 534) has become commonplace, especially in the context of the climate regime, in which geopolitical dimensions and great power cooperation have gained in importance, not least since the 2009 Copenhagen conference (Brenton, 2013; DeCanio and Fremstad, 2013; Terhalle and Depledge, 2013). Yet, paralleling the IR discipline generally, despite recognising power inequality as an important structural condition, the GEP literature has never developed a clear and unambiguous definition of what counts as a ‘power’, let alone a ‘great power’, in the environmental field. The nature of international power, the role of great powers, and whether there is a distinct group of environmental great powers thus remain undertheorized in GEP.

## **Overview of the Book**

In this book we take a first step towards closing this gap by developing a theoretical framework that connects established IR approaches to the study of great powers and GPM with GEP perspectives on the role played by major powers. We apply this framework to a selection of countries that can claim to be environmental great powers and examine their evolving role in the context of international climate politics.

In Chapter 2, the editors, Barry Buzan and Robert Falkner, set out the theoretical and conceptual framework that guides the contributions to this volume. In a first step, they review the IR literature and distinguish between material and social approaches to the study of great powers. They identify some of the difficulties in determining which countries count as great powers at any given time and discuss how the power shift from the West towards emerging powers and the transition towards deep pluralism in international society is further complicating the great power landscape. In a second step, Buzan and Falkner relate the great power concept to global environmental politics. Applying a material and social conception of power, the authors distinguish between two forms of environmental power in international relations: negative power, which reflects a country’s control over environmental resources and ability to cause environmental harm; and positive power, which rests on a country’s capability to promote global environmental protection. Based on this dual notion of environmental power, they establish the conditions under which individual countries can count as environmental great powers before exploring the attribution of special international responsibilities that comes with great power status. The chapter concludes with a review of the historical evolution of special environmental responsibilities and the impact that full

securitization of the environment would have on great power responsibilities in the environmental field.

In Chapter 3, Robyn Eckersley discusses the role that the US has played in global environmental politics. As the world's preeminent military, economic, and environmental power, the US's participation is essential if international environmental policymaking is to succeed. Most scholars point to a long-term decline in US environmental leadership and engagement, from an active role in shaping the international environmental agenda in the 1970s and 1980s to a gradual retreat from leadership since the end of the Cold War, and particularly during the anti-environmental Trump administration. Eckersley's analysis offers a corrective to this narrative of declining US leadership. She points to long-standing differences in US engagement across the wide range of international environmental regimes and a persistent concern with projecting core economic interests and industrial competitiveness against intrusive international environmental regulation. Her analysis shows that, despite playing an active role in international climate politics, the US has been reluctant to embrace special environmental responsibilities in this area. Global environmental responsibility has never featured as part of US grand strategy.

In Chapter 4, Pichamon Yeophantong and Evelyn Goh explore China's rise as a major environmental power and how it has come to define its global responsibilities towards the global environment. Thanks to its large population and spectacular economic growth, the country has gained significant environmental power, with systemic consequences for global planetary health. The authors argue that China has been slow to develop a positive and constructive role in addressing environmental problems that could match its ability to cause environmental harm, thus making it only a partial environmental great power. Yeophantong and Goh point to the inherent tensions in China's international climate stance between its continued identity as a developing country that defends the Global South's reduced environmental responsibilities and an emerging discourse of China's great power status and responsibility for global climate cooperation. China offers a prime example of how the strict North-South divide in defining environmental responsibilities has started to break down, but without a new and stable configuration of environmental great power responsibilities emerging.

The European Union's emergence as a 'green great power' is the focus of Chapter 5. As Katja Biedenkopf, Claire Dupont, and Diarmuid Torney point out, the EU is not a fully fledged state and has therefore been neglected in the literatures on great powers and GPM. However, the EU has gradually acquired a distinctive role in GEP, speaking and negotiating on behalf of its 27 member states. Thanks to its unique quality as an international actor and considerable market power, the EU has assumed a leading role in shaping international regulatory standards, including in the environmental sector. Based on two cases studies of climate change and chemicals safety, Biedenkopf, Dupont, and Torney demonstrate that the EU should indeed be considered a great power in GEP. It is internationally recognized as a key player in global climate governance, which has become a central element of the EU's political identity and international diplomacy. However, given the EU's success in reducing climate

emissions and managing chemicals pollution, its negative power has shrunk relative to other powers. Somewhat paradoxically, the success of the EU's environmental policy has therefore reduced its veto power in global environmental politics, forcing it to rely ever more on its positive environmental power to shape international environmental debates and policies.

In Chapter 6, Kathryn Hochstetler focuses on Brazil as an emerging power, both in international politics and in the field of environmental protection. She argues that the country's significant ecological endowments and impacts across a range of environmental sectors make it, structurally at least, an environmental great power. In the international climate negotiations at the Copenhagen conference in 2009, Brazil joined other emerging powers in the BASIC grouping, thereby signalling its intent to play a more active role in shaping the post-Kyoto climate treaty. However, the country has struggled to exercise its newly found power in GEP in a consistent manner. Despite earlier successes in fighting deforestation under President Lula, the destruction of the Amazonian rainforest has gathered momentum again under President Bolsonaro and the country has taken a backseat role in recent international climate negotiations.

In Chapter 7, Miriam Prys-Hansen explores the shifting politics of responsibility around India's changing international status in global environmental and climate politics. Building on the sociological understanding of great power responsibility, she traces how different actors, both within and outside the country, have come to attribute global responsibilities in line with India's rising power and environmental impact, and how the country has responded to such expectations. The Modi government has displayed some environmental leadership through its solar energy initiative and as part of the BASIC group in the climate negotiations, suggesting a certain degree of fluidity in the country's traditional stance in climate politics. However, Prys-Hansen's close reading of government statements demonstrates that India has largely resisted calls for enhanced environmental responsibility that would reflect its rising power status. The country continues to defend the long-established principle of a North-South division of responsibilities and sticks to its identity as a developing country in the UNFCCC regime. Unlike China, India has thus shown greater reluctance to respond to external and internal demands for a realignment of its international environmental responsibilities in line with its emerging power status and its own great power aspirations.

Chapter 8 discusses the case of Russia, which has received far less attention in the literature on GEP than other major powers. Reviewing three decades of the country's involvement with the international climate regime, Alina Averchenkova identifies several shifts in Russia's approach. In the early 1990s, at a time when Russia sought to reassert its claim to great power status after the collapse of the Soviet Union, Russia offered initial support for international environmental norms and alluded to a sense of great power responsibility. As the author points out, however, Russia struggled to gain international recognition for its early contribution to reducing greenhouse gas emissions and took a more cautious approach in subsequent negotiations on emission reduction targets. Russia supported the Kyoto Protocol and briefly assumed a pivotal role in international climate politics in the early 2000s, when its ratification of Kyoto ensured the treaty's entry into force.

However, deep domestic divisions over climate policy and a worsening economic outlook for the country have helped to marginalize ‘common responsibility’ and ‘international cooperation’ framings of the climate challenge in favour of a more nationalist outlook. Russia has slowly but steadily taken a backseat role in the climate negotiations, adopting a conservative and sovereigntist approach to global climate responsibility.

In Chapter 9, Shirley Scott explores the extent to which climate change has become securitized in international society. Scott notes that existing concepts of security have been broadened to include an ever wider range of global threats, including climate change, and that this has created momentum to also expand traditional notions of great power responsibility. Building on the Copenhagen School of security studies, she argues that full climate securitization at the international level would require a move towards an international emergency response, with the United Nations Security Council (UNSC) accepting a climate governance role based on its Chapter VII powers. Although the majority of countries now recognize climate change as a security threat and various UN members have initiated UNSC debates on climate security, international society is still far from empowering the Security Council with the authority to take decisive action against global warming. Two of the five permanent UNSC members (Russia and China) oppose such a move, while many developing countries express concerns about the use of coercive measures in the fight against climate change.

In Chapter 10, Sanna Kopra discusses the link between great power responsibility and leadership in international climate politics. Building on the English School understanding of great powers, which combines material capabilities with social recognition, Kopra asks whether any of the existing great powers can count as ‘great climate powers’—powers that have a significant impact on global warming trends and are willing to act against the global climate threat. Her analysis of international climate politics leads her to conclude that none of the conventional great powers have so far assumed great power responsibility for climate stability. A successful securitization of climate change might change this, as it would turn climate change into a systemic threat to the stability of international society. However, even if climate securitization were possible, it would most likely lead to a minimalist great power response based on pluralist ethics, and not to a deeper solidarist commitment to addressing the deep causes of climate change and its global humanitarian challenges. Unsurprisingly, as Kopra concludes, the existing great powers have proved themselves to be great climate irresponsibles.

In Chapter 11, Susan Park broadens the perspective beyond climate change to consider how great powers have performed across a wider range of international environmental issues, from ozone layer depletion to biodiversity, whaling, chemical management, hazardous waste, forestry, and climate change. As Park argues, environmental great powers have been at the forefront of creating multilateral environmental agreements (MEAs). They invariably play an influential role, acting as leaders, laggards, swing states, or brokers in international environmental negotiations. Reviewing great powers’ performance in seven environmental regimes, Park concludes that they mostly act in accordance with their



national interests and identities. They have delegated some limited authority to the international environmental institutions that underpin MEAs, but deep divisions remain over the question of what technical capacity and resources these should be endowed with.

In Chapter 12, Stacy VanDeveer and Tim Boersma focus on the global politics of coal, which is at the centre of global efforts to stop global warming and is closely entwined with great power politics. With the help of three case studies—the US, EU, and China—the authors explore what great power responsibility might look like for coal politics in the context of an escalating climate crisis. VanDeveer and Boersma contrast the existing ambition for international climate leadership with a detailed analysis of the reality of coal politics in the three cases before expanding the focus to consider the situation in other leading coal powers (Australia, India, Indonesia, and Russia). Based on this analysis, the authors reach a sobering conclusion: leading coal powers have so far failed to follow up their environmental rhetoric and claims to leadership in international climate politics with responsible domestic action to phase out coal production and consumption.

In the last chapter, Robert Falkner and Barry Buzan draw some broad conclusions from the contributions to this volume. Reviewing the great power concept and how it applies to the environmental field, they argue that some major powers do indeed count as systemically important in GEP, owing to their outsized ecological footprint and environmental capabilities. The established great powers of the Global North have accepted special responsibilities but lack a consensus on how far these go, while the emerging powers of the Global South remain reluctant to match their great power aspirations with comparable special responsibilities. Even if the environmental great powers were to reach a consensus on their special responsibilities, other barriers to developing a GPM approach to climate change persist. Most importantly, the current international climate regime offers great powers few privileges and rights that would balance their special responsibilities. The classic GPM bargain that can be found in the international security arena does not easily apply to climate politics. However, should climate change be fully securitized as the impacts of global warming further disrupt the international order, a move towards great power responsibility and management cannot be ruled out. Indeed, serious thought should be given about how to embed a stronger sense of environmental *raison de système*, an ethic of collective responsibility for planetary health, amongst the group of environmental great powers.

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