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Preface to the paperback edition

Reflections on global environmental politics

Practice and scholarship amidst ecological change

In the few years that have passed since the first (hardback) edition of the *Routledge Handbook of Global Environmental Politics* was prepared for publication, much has happened in the real world and in scholarly research. In this preface to the paperback edition, my objective is to briefly reflect on both the practice and study of global environmental politics. I follow the organization of the book, partly to bring some of it up to date and partly to give readers a taste of what follows in subsequent chapters. I describe a few recent developments in the field, in the process highlighting some important issues and themes. One thing has not changed since the first edition appeared and is worth keeping in mind: as pollution increases and the environment changes, global environmental politics is a subject that becomes more important, and more apparent, with each passing year. The urgency of understanding the human aspects of global environmental changes is increasing rapidly, as is the need to do vastly more to change polluting practices and ecologically harmful behaviors.

A fundamental question for real-world practitioners of global environmental politics is whether politics, including the making and implementation of environmental (and related) policies at international, national and subnational levels, will ever be able to keep pace with rapid environmental changes often caused by politics itself. While the environment changes rapidly, politics and policy tend to evolve slowly. A key question for scholars is whether it is enough to describe and explain global environmental politics. Given the enormous significance of many environmental changes – they can result in truly profound and widespread harm to humans, animals and nature generally – it may be that the time has come for many more scholars of global environmental politics to be less impartial in their work, to move away from merely explaining events and to join forces with activists and others who are trying to proactively shape the future. Put another way, while practitioners of global environmental politics can and should learn from scholars in the field, it may be time for more of the scholars to become practitioners themselves.

Explaining and understanding global environmental politics

Part I of the handbook looks at ways of explaining and understanding global environmental politics. The purposes of the five chapters are to frame global environmental politics as a scholarly

discipline and unique field of practice, to highlight what prominent theories – both traditional and “alternative” – can tell us, and to describe some of the ways in which scholars in the field go about their work. When thinking about how to explain and understand global environmental politics, one is likely to encounter problematic questions (which one finds in many other scholarly fields as well): should scholars and researchers focus on empirical analyses, specifically undertaking studies of past events as means to explain global environmental politics and possibly to predict its likely future? To maintain scientific rigor, and to claim impartiality, the answer that most scholars give to this question is “yes.” However, should scholars instead be stepping into the more contested area of normative research, to draw on reality and theory in ways that help us to imagine, and even to bring about, an alternative – in this case, less-polluted and more environmentally sustainable – future? The answer that many scholars give to this question, and indeed the answer that politicians and most citizens probably expect them to give, is something along the lines of, “No, that’s not our job. That’s the job of ordinary citizens, governments, industries (etc.).” This “problem” of what the field of global environmental politics is about, and how those who do global environmental politics research should behave, at least needs to be debated.

Most scholars of global environmental politics are teachers of some sort, whether as university professors or as researchers who are increasingly pushed to make their findings digestible by the media. Many scholars do both of these things simultaneously or at different times in their careers. This raises questions of how to portray global environmental issues and related politics and policies. Should scholars be “realistic” in how they teach about these topics, meaning probably sounding rather pessimistic and emphasizing how things are getting worse, at least with respect to most environmental issues? Or should they be “positive,” highlighting the successes in addressing problems of pollution and environmental change? To do the former may put students and publics off the subject; to do the latter may be to mislead them into thinking that environmental problems are easier to solve than is actually the case, which may be what many industries and their political supporters want people to believe. One is tempted to say that scholars should strike a balance, but finding a balance that does justice to ongoing environmental changes and the world’s responses to them is not simple or easy.

There is no denying that things are getting worse in most respects, especially if we think in global terms and notably if we focus on the countless places where pollution is now horrendous (developing-world cities come to mind) and those where the environment and species are in rapid decline (as in many forests and coastal seas, which suffer from severe contamination and over-exploitation). Having said that, there are cases of success at all levels: local, such as cleaner surface water in many developed countries; regional, for example substantial declines in pollution causing acid rain in North America and Europe; and global, most prominently, perhaps, signs that international agreements to protect Earth’s stratospheric ozone layer seem to be working.

Actors and institutions in global environmental politics

Part II of the handbook examines a number of important actors in global environmental politics, notably states, international organizations, corporations and nongovernmental organizations, as well as institutions, broadly defined, that are important in this issue area, such as environmental regimes, international law, domestic institutions and foreign policy bureaucracy. Among the many ways of considering the roles of actors and institutions is to emphasize how they have changed in significance with time. For much of its history, global environmental politics has really been about *international* (more accurately, *inter-state*) politics: international environmental

negotiations, environmental diplomacy, environmental treaty making and the like. Even today, states and, more specifically, governments are at the center of global environmental politics, and there are all manner of ongoing international environmental negotiations underway at any given time, with newly agreed and longstanding environmental agreements, conventions and treaties being implemented around the world. This sort of activity is especially evident in the context of climate change, which is the most intense and prolonged example of international diplomacy in human history, not least because it involves almost every country and more than a few major international organizations (such as the European Union and the United Nations). States have not gone away and will not do so anytime soon. Consequently, the institutions of states – their organizations and behavioral practices, manifested in bureaucratic agencies that have roles in domestic and foreign policymaking, as well as international regimes and international law – remain extremely important to global environmental politics. But states are by no means the only actors that are important in global environmental politics today, and some scholars foresee their importance declining in the future. One might argue that their importance is already declining as that of subnational and non-state actors has grown.

Local and domestic environmental politics have for more than half a century been dominated by nongovernmental actors: industries created pollution and citizens, frequently via groups and organizations, have acted to stop them from doing so, often through protests, political campaigns, targeted voting and direct action. Put another way, the genesis of global environmental politics is located among peoples, not among governments. Arguably, the future of global environmental politics will be largely characterized by the growing salience of nongovernmental actors, and indeed of individuals. Climate change is a case in point. Nearly three decades of negotiations among diplomats to produce an effective international response to the problem have failed to stem the global increase in greenhouse gas emissions, particularly carbon dioxide. This is not to say that national governments have done nothing – some of them have started to implement policies that mitigate and in some cases reduce emissions – but globally the pollutants causing climate change are still on the rise, as are the temperatures of the atmosphere and oceans. This failure by states to do enough to combat climate change has stimulated, and re-stimulated year on year, the creation and activity of nongovernmental organizations and growing responses by subnational governments. Environmental groups actively lobby governments to respond to the problem. They educate publics and encourage them to both reduce individual environmental impacts (of questionable widespread efficacy) and vote for politicians with pro-environment platforms. In turn, what some might call “anti-environment” organizations push in the opposite direction, discouraging environmentally sustainable economic development, lobbying against energy regulation, and in many cases doing their best to confuse publics (and politicians) about environmental science. These and other activities of nongovernmental actors will only increase and may in large measure supplant the role of states in issue areas where governments fail to respond quickly enough to protect the environment, or where they actively side with polluters to destroy it.

Industries are often rightly viewed as harmful to the environment, particularly those that make things or mine natural resources. Thus, for the wrong reasons, they are absolutely central to global environmental politics. They may extract materials from the environment, often with extremely harmful consequences. For example, the extraction of fossil fuels, especially coal, and its consumption in factories, power plants and (in the case of petroleum) automobiles, are absolutely devastating to the environment, not to mention the direct harmful impacts that their use has on human health. To continue with the example of climate change, coal and petroleum companies have been among those industries that have fought the hardest to prevent successful international action and national legislation. Likewise, industries that depend on living natural

resources, whether these be trees, fish or other species, also cause environmental harm and routinely push governments to prevent them from doing so (because sustainable use of natural resources may require a new business model, possibly one that is less profitable, at least in the short term or for particular businesses). This is the general trend in how industries behave, and one assumes that it will continue as long as governments allow it.

That said, some businesses are doing the opposite: encouraging environmental sustainability and pushing for widespread regulation of their practices (often to internationalize domestic practices so that their international competitors are required to adhere to similar regulations). Much of this is “greenwashing” by otherwise polluting companies: making harmful practices look more environmentally sustainable than they really are, or encouraging people to consume “green” products rather than consume less “stuff” altogether. Examples include the airline industry’s attempts to paint itself as being “sustainable” and the auto industry’s marketing of “environmentally friendly” cars and trucks, which, amazingly, governments have sometimes endorsed by lowering taxes on such vehicles, thereby encouraging more use of them when using them far less is what is required to eliminate pollution. Even when these industries are genuine in their desire to protect the environment, they never voluntarily do what would be best for the environment: close up shop. (It is hard to think of an essential reason for maintaining the global airline industry, for example. It is good for business and leisure travel, but hardly a necessity.) However, alongside cynical attempts to jump on the environmental sustainability bandwagon are industries that are profiting by promoting genuine sustainability. A good example of this phenomenon can be found in some businesses working to expand alternative energy capacity. While they may be in the minority, their impact is growing rapidly. Furthermore, some well-established industries are now recognizing that global environmental change poses a threat to their business models. For example, the global reinsurance industry is concerned about the future impacts of climate change and therefore supports action by governments and adaptation by the businesses that they insure (even as they may profit from selling more insurance in uncertain times).

What is key here is that governments are now being pushed and pulled in different directions, often by conservative industries to continue allowing polluting practices, but increasingly by new ones; alongside environmental-protection organizations, to support sustainable alternatives. This is a trend that is going in the right direction – the balance may be shifting toward environmental sustainability – albeit not at a pace that keeps up with the scale and speed of many ecological changes.

Ideas and themes in global environmental politics

In addition to defining in detail the aforementioned concept of sustainability, Part III of the handbook highlights a dozen ideas and themes that permeate global environmental politics, including consumption, expertise, uncertainty, security, diplomacy, North–South relations, globalization, justice (both international and environmental), ethics, public participation and citizenship. While the real-world significance of each of these concepts is explained in the chapters, it is important to bear in mind that their effects can overlap considerably. For example, on one hand, the spread of material consumption through processes of globalization is having an enormous adverse impact on the natural environment. On the other hand, it may be possible for the notion of environmental sustainability to spread via the same processes, potentially counteracting or at least mitigating the environmental impacts of global economic integration. Expertise can reduce uncertainty, which in turn can impact public opinion and the degree to which people are willing to think and act as environmental citizens. Realistically, politics

intervenes, with questionable "experts" routinely deployed to support business as usual and the status quo. North-South relations in global environmental politics are inseparable from international justice: developing countries blame developed ones for global environmental decline and expect to be compensated for their resulting suffering. They also expect developed countries to stop polluting the global environment before they are required to do likewise. A consequence is continued disagreement about how to cooperate internationally to address climate change and other pressing environmental problems. Environmental diplomacy, and specifically international environmental conferences among diplomats, are therefore permeated by discussions and debates about what is fair and just. To put it mildly, this makes reaching agreement on some issues all but impossible.

While all of the ideas and themes addressed in Part III are vitally important, arguably none is more so than consumption. It is consumption of environmental resources, particularly by industries and individuals, which is driving global environmental change. In past decades it has been common to blame population growth for the environmental harm done by humanity. To be sure, the number of people on Earth does matter greatly. All things being equal, more people means more consumption, more pollution and further decline in environmental commons (shared ecological spaces and resources). There is no question that a growing global population is bad for the environment and those – human and non-human – that depend upon it for survival and wellbeing. But things are more complicated than this; all things are not equal: some people consume more than others. Thus, the biggest problem is found in the highly consumptive lifestyles of the West, most obviously the American way of life and its dependence on vast quantities of resources, fossil fuels and consumer products, characterized most perversely by the private automobile. If this lifestyle were restricted to a relatively few people – say, some millions worldwide – the global environment would be able to cope. But the consumer society is not restricted at all; it is expanding rapidly around the world from its already gargantuan base in North America, Europe and the rich countries of other regions. As countries of the developing world escape poverty, their populations – often not the majority, but tens or even hundreds of millions of people (certainly in the cases of China and eventually India) – are adopting lifestyles like those that still prevail in most of the Western world. Even as some countries in the West have started to shift toward less materially intensive and less-polluting ways of life, material consumption and resulting pollution has exploded in Asia.

It may not be hyperbole to say that the future of global environmental politics will be a function of the extent to which this spread of material consumption continues. To be sure, ways of reducing and mitigating the impacts of consumption are being devised all the time. Alas, they are happening on a scale that is an order of magnitude less than what is required, meaning that environmental pollution continues to grow – and will do so for decades at least.

Key issues and policies in global environmental politics

As the chapters in Part IV reveal, global environmental politics encompasses a great many issues and related policies, including (but not limited to) climate change, energy use, stratospheric ozone depletion, air pollution, acid rain, transport, persistent organic pollutants, hazardous wastes, water pollution, river systems and wetlands, seas and oceans, fisheries, marine mammals, biodiversity, migratory species, forests, desertification, and food and agriculture. Again, these issues overlap, as do (or should) associated policies. For example, energy use and resulting pollution is a function of transport policy (or the lack of it); acid rain is a function of the type of energy used, notably the burning of coal; pollution of rivers eventually leads to the pollution of

seas, which in turn can adversely affect fisheries, meaning that an effective policy to protect fisheries cannot be divorced in reality from an effective policy to prevent pollution of rivers (often a result of agricultural policy because farms produce much of the pollution that finds its way into rivers); biodiversity cannot be adequately protected without policies to protect the forests where millions of species reside, but protecting forests cannot be divorced from agricultural policies because forests are often sacrificed to make way for agricultural land. These and countless other interactions among environmental issues, and in turn the complexities that arise for effective policymaking, not least the many overlapping political actors with interests in policy outcomes, makes global environmental politics extraordinarily complex for practitioners, and more than a little difficult to understand for scholars. These interactions also mean that fostering an alternative, more environmentally sustainable future is incredibly challenging for activists.

Part IV has only one chapter dedicated to climate change. This should not be interpreted as suggesting that it is of equal significance to other issues addressed in this part of the book. I would argue that it is the most important issue facing practitioners and scholars of global environmental politics. I would even go further: it is the most important issue ever to face humanity (not to mention the non-human world, at least in the current epoch). This is because nearly all other environmental and natural resource problems are connected to climate change in some way. More often than not, this means that they are made more difficult by climate change. Energy policies can never again be divorced from climate change; the types of energy used, and how much, will be the largest determinant of global warming and other aspects of climate change in the future. Depletion of Earth's stratospheric ozone layer is tightly connected to climate change. This is because classes of ozone-destroying chemicals that replaced earlier compounds are extremely powerful greenhouse gases, meaning that reducing the use of these new compounds is a very important step in addressing climate change. This example also highlights another complication: by solving one environmental problem, in this case by regulating ozone-destroying chemicals, another problem – climate change in this example – may be made much worse.

Similarly, air pollution and acid rain are tightly connected to climate change: they are very often caused by the same activities and pollutants, especially the burning of coal for the production of electricity. Likewise, transport – the vehicles used to move people and things, as well as the infrastructure enabling that movement – is tightly connected to climate change; the burning of fossil fuels for transport is a major contributor to global greenhouse gas emissions, and despite new transport technologies, those emissions are on the rise globally. The health of the oceans is being degraded by climate change. Carbon dioxide emissions not only contribute to warming the Earth's atmosphere, they also contribute to both warming and acidification of the oceans, thereby threatening the marine food chain. This has obvious significance for fisheries: climate change may result in major declines in global catches, with potential implications for the welfare of billions of people. More generally, food production will suffer as climate change becomes more chronic in coming decades. What is more, as people eat more meat, climate change will worsen because meat production and consumption are major sources of greenhouse gas pollution, exceeding that of all forms of transport combined, according to some estimates. Climate change also means increasing losses of habitats and extinction of more species, reducing global biodiversity. Biodiversity loss and climate change are both exacerbated by deforestation: the loss of forests means loss of habitat for many species, and it means the loss of forests' function as enormous "sinks" for carbon, not to mention increased carbon pollution that results when felled forests are burned or decay. The links between climate change, especially global and regional

warming, have clear implications for desertification: it is likely to grow worse. The list of connections between climate change and other environmental issues is almost endless.

How has the problem of climate change been dealt with internationally? At the time of this writing, governments are individually formulating proposals for their own national emissions limitations in the future. These proposals will become part of a new climate change agreement scheduled for signing at the late-2015 Paris conference of the United Nations Framework Convention on Climate Change. The expectation is that most countries will pledge to limit their greenhouse gas emissions in some way: most wealthy countries are expected to agree to reduce their emissions (the relatively ambitious Europeans, for example, have pledged collectively to reduce European Union-wide emissions by 40 percent by 2030, compared to 1990), newly developed countries may pledge dates by which their emissions will stabilize or peak (China, the largest national source of greenhouse gas pollution, has pledged that its emissions will plateau no later than 2030), while most poor countries will continue to see their emissions increase short of very substantial assistance from developed countries to alter this trajectory (India, for example, seems intent on increasing carbon emissions substantially as part of its drive to develop economically). The Paris conference will be characterized by the themes that have dominated international deliberations on climate change, and indeed many other global environmental problems, for decades, notably "common but differentiated responsibility," which is the notion that developed countries should reduce their emissions very substantially before requiring poorer countries to do likewise, and that developed countries should provide developing countries with financial and technological assistance to both compensate them for the rich world's historical pollution and to aid them in achieving environmentally sustainable development.

If the past is any guide, the Paris conference will be portrayed as a success by some and condemned as a failure by others. It will be a success in the sense that it will result in far more countries joining in efforts to address climate change than has been the case in past agreements. A number of developed countries will pledge and gradually achieve very substantial cuts in their greenhouse gas emissions, and the conference will offer a real prospect of global emissions peaking sometime later this century. This is all good, not least because it comes alongside many other developments around the world, whether these be regulatory measures at local levels or new technologies that reduce carbon pollution. But it will not be enough; it will not be nearly enough to stop global warming and most of the increasingly adverse and widespread impacts of climate change far into the future. In other words, despite the Paris agreement and despite countless efforts by many individuals, organizations, local communities and even some businesses, climate change will grow worse. That is in large part because the whole world is becoming more affluent, and more affluent people want to consume energy and materials and manufactured products that feed into climate pollution and indeed most other ecological problems. A real question will be how much financial assistance will be realized – not just pledged, but actually doled out – to help the world's poor adapt to inevitable environmental changes to come, and hopefully one day to enjoy relatively prosperous lifestyles in ways that are far more environmentally sustainable than those enjoyed by affluent societies of the past and the present.

Difficult questions for global environmental politics

The problem of climate change, its causes and the manner in which it is being addressed around the world, as well as the way in which scholars study it, demonstrates the enduring importance of global environmental politics for everyone. A key question is whether global environmental politics as a practice will be able to catch up with the pace of ecological changes. In some

instances in the past it has done so – policymakers have successfully devised and implemented ways of protecting local air and water, and of limiting regional acid rain, and they have started the process of protecting Earth's stratospheric ozone layer. There are signs that they will also continue to devise effective means for mitigating global climate change, and it is possible that mechanisms for adapting to climate change will be widely implemented in the future. However, as things stand now and certainly in the near future, in broad terms the pace of ecological changes is much faster than practitioners' responses to them. Policymakers and diplomats have just as many failures as successes. In many places, pollution is increasing and the environment is suffering from worsening exploitation. Successes on one region – say, reducing local air pollution in North America – are often more than matched by failures in others – grotesque levels of air pollution being endured in many parts of eastern and southern Asia, for example. Perhaps the best that one could accurately say is that "the glass is only half empty."

A similar question can be asked of global environmental politics as a scholarly discipline: is it up to the task of not only explaining environmental problems, but also providing workable solutions to them; solutions that are not just possible to envision but which have a chance of being implemented relatively soon in a world of competing priorities and politically powerful interests resistant to change? What more can scholars of global environmental politics do to fill the glass from half empty to half full and more? For starters, knowledge of and concern about global environmental politics needs to expand. A primary purpose of this volume is to serve as a foundation for such knowledge. But knowledge is not enough; there may be an obligation – call it a moral one – for scholars to do more than help us understand global environmental politics. There may be an obligation for them to become proactive advocates for, and participants in, efforts to protect the environment, even if that means diverting attention from traditional styles of research and teaching.

Is it any longer acceptable for scholars to say, in so many words (or behave as though), "It's my job to explain the politics of environmental change, and the job of others to do something about it"? At what point will environmental changes be so bad, or be forecast to be so bad, that everyone, including scholars of global environmental politics, must become environmentalists, even environmental activists? How many millions of hectares of forest will have to be lost to logging and ranching? How rare will clean water from rivers and aquifers have to be? How much plastic will have to pile up in the oceans and how acidic will they have to become due to carbon dioxide pollution? How many thousands or millions of people will have to suffer and die from environmental changes and impacts resulting from climate change? How slow will governments have to be relative to the pace and scale of environmental changes before scholars shift from being expert observers to expert activists? Or is it the job of scholars to simply chronicle environmental decline, to leave an academic legacy so that their grandchildren will be absolutely certain that we knew exactly why we were destroying the global environment?

Is it the job of both practitioners and scholars to, in effect, save us from ourselves – to "save the environment" from the human, social and indeed political causes of its accelerating decline? The field of activity and scholarship that we call "global environmental politics" generates the information and ideas that force us to ask such a question. It can also generate answers to it, in the process identifying new pathways by which humanity might one day make the question unnecessary.

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Introduction

Delineating global environmental politics

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The natural environment is in decline globally. With too few exceptions, environmental indicators are growing worse. For example, water and air pollution are now so poor in some developing countries, such as China and India, that hundreds of millions of people are forced to drink severely tainted water and breathe toxic air. Regionally, acid rain – which has been reduced in North America and Western Europe in recent decades – is on the increase in East Asia and other developing regions, putting ecosystems and agriculture at great risk. The so-called “Asian brown cloud” of smog is so vast that it spreads across the Pacific to the Americas. Coastal seas have been overfished in most oceans, and this phenomenon has extended to regional seas in both the developed and developing worlds. Marine environments are severely degraded by polluting runoff from continents, with the world’s coral reefs shrinking and ocean “dead zones” now extending along the coastlines of all continents. Wildlife around the world is under great threat, with declines and extinctions of species on the rise. These problems are exacerbated by climate change, which is manifested in rising global temperatures, very serious threats to agricultural productivity from droughts and floods, more severe weather events, new threats to species unable to adapt to environmental changes and pollution, declines in marine ecosystems due to warming waters and ocean acidification, and immeasurable dangers posed by sea-level rise, particularly for poor low-lying regions, countries and habitats. These are but a few examples of the environmental challenges that are increasing around the world.

The role that politics plays in these challenges, whether they play out within or among countries, cannot be understated. The continuing decline of the global environment can largely be put down to the failure of governments and other actors to respond in time – or at all. When we do see successes in preventing or responding to adverse environmental changes and pollution, for example in cleaner local environments in many developed countries and a handful of international successes, such as agreements among countries to curb emissions of pollutants that destroy Earth’s protective stratospheric ozone layer, they can often be put down to the willingness of governments and other political actors, including nongovernmental organizations and occasionally businesses, to negotiate and implement policies that prioritize environmental protection over short-term economic gain. Understanding and promoting these kinds of successes is crucially important, and in many cases vital, to the future of all societies and to natural ecosystems. This handbook is intended to be part of the process of promoting those successes: first to bolster basic