

**SARA R. RINFRET and**  
**MICHELLE C. PAUTZ**

# **US Environmental Policy in Action**

**2ND EDITION**



# US Environmental Policy in Action

“Rinfret and Pautz’s title offers a unique, concise, and highly readable overview of contemporary environmental policy and politics in the United States. It comes at an opportune time as longstanding policies and programs face more opposition than ever before from political ideologues and vested economic interests. What we most need at present is a clear understanding of the problems that we face, the most viable policy alternatives for addressing them, and the kinds of programs that offer the greatest promise. Students will find the authors’ innovative coverage of the practical challenges of successful policy development and implementation a refreshing alternative to conventional texts.”

—Michael E. Kraft, *Professor Emeritus, Political Science and Public and Environmental Affairs, University of Wisconsin-Green Bay, USA*

“Anyone interested in environmental policy will applaud this updated edition of *US Environmental Policy in Action*. In this engaging book, Rinfret and Pautz provide a careful and rich analysis of key policy developments in the field, but also explore how environmental policy is shaped through rulemaking, evolves during implementation, is influenced by interest groups and front-line staff in state environmental programs, and is evaluated. By doing so, students and scholars alike gain a greater appreciation for the context in which environmental policy occurs and the conditions under which it may succeed. This outstanding book is a must-read for those seeking a deeper understanding of environmental policy in the United States.”

—Denise Scheberle, *Clinical Teaching Professor, School of Public Affairs, University of Colorado Denver, USA*

“The second edition of *US Environmental Policy in Action* illustrates the challenging nature of environmental problem and the difficult choices confronting policymakers. The authors’ most important contribution is to focus on those at the front lines of environmental policy—the rule writers, inspectors, businesses, and policy analysts, who are typically overlooked in the literature.”

—Robert Duffy, *Professor, Political Science, Colorado State University, USA*

Sara R. Rinfret · Michelle C. Pautz

# US Environmental Policy in Action

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*To our students—they hold the keys to our environmental future.*

## PREFACE

Understanding environmental issues and problems is incredibly complicated because of the encompassing nature of the topics and the increasing politicization of these issues. At its most basic level, environmental issues concern the air we breathe, the water we drink, and the land and resources we live on and use to sustain our lives. Although we both share a passion for these issues from different places—Sara is an avid outdoorswoman and Michelle is most definitely not, we are both committed to understanding complex environmental issues and working with our students to tackle incredible challenges. Most importantly, we are keenly interested in how policy works on the front-lines, not just in the halls of Congress. This orientation, coupled with our passions for learning and teaching, motivated the first edition of this book.

The second edition of this book finds the United States grappling with environmental issues in a way that we have not witnessed in our history. As you may already be aware, environmental issues were not always so contentious and divisive. In fact, the passage of most of our modern environmental laws—predominantly in the 1960s and 1970s—came about during highly charged times, but during a period in which consensus was possible and action essential.

Since those formative decades, we have seen American environmental policy become increasingly political under the Trump administration. Given the political climate surrounding environmental issues, it is essential that we have meaningful and productive dialogue around these challenges that affect all of us and not talk past one another in heated

rhetoric. We hope this book provides a foundation for some of those conversations as those conversations have to be grounded in an understanding of environmental policy history and environmental policy in action.

There are many wonderful environmental policy texts available but what sets this one apart and what makes it particularly useful in today's discussions of these issues is our emphasis on the "doing" of environmental policy. Often environmental policy texts focus at the highest levels of our government—notably the federal level—and discuss policy from that vantage point. Although we discuss environmental policy at the federal level, we take the conversation a step further and discuss implementation on the front-lines. Our emphasis on this action orientation stems from both our professional experiences working in environmental policy and regulation but also our academic backgrounds in public administration. It is important to understand how and why Congress passed the Clean Air Act in 1970, for example, but it is equally important to understand how that law is implemented today through the work of air inspectors and members of the regulated community and what nearly five decades of experience and additional research and data mean for safeguarding the quality of the nation's air. Additionally, we incorporate stories of individuals on the front-lines of environmental policy implementation to enhance our understandings of these issues. With these deeper understandings and richer contexts, we hope to move the conversation forward in a productive manner about what the government should and should not do as it concerns the environment.

With this approach to environmental policy action, this book is intended for readers coming to the subject from a variety of contexts. For students in environmental studies and sustainability studies programs, this book will aid an understanding of the governmental and policy side of these issues. For students in political science and public administration, this book will help in applying core concepts in these fields to the environmental realm. For students in the natural sciences and engineering, this book will assist in explaining why seemingly obvious solutions to environmental challenges go unpursued in environmental policy.

Ultimately, our take on environmental policy issues comes from the passion and energy our students have shown us over many years and across institutions when it comes to tackling these very present and intense issues before us. We hope that this book helps advance understanding of environmental issues and helps chart a path forward because

inaction is action, and inaction—particularly in this policy area—can have significant and lasting negative ramifications for us and generations to come.

Dayton, USA  
Missoula, USA  
November 2018

Michelle C. Pautz  
Sara R. Rinfret



## ACKNOWLEDGEMENTS

As is the case with the environmental issues we discuss in the following pages, the number of people who contributed to and supported our efforts developing and writing this book is significant. Therefore, while our names adorn the cover of this book, it is essential that we acknowledge a wonderful group of colleagues, friends, and family members that helped bring this book to fruition in its first edition and were equally essential in the revisions and additions for the second edition.

First and foremost, we must acknowledge our students who motivate us, challenge us, and sustain our passion for this topic and our hopes for future generations alive. We have both taught at a variety of institutions over many years and we continue to be impressed by our students who crave understanding in the hopes of making the world just a little bit better for the future. A number of students have helped us with various aspects over the course of both editions, including Emily Kaylor, Taylor Pair, Susan Weaver, and Jeff Cook. Jeff, a former student of Sara's, recently completed his Ph.D. in political science at Colorado State. He was instrumental in re-working Chapter 8. His passion for understanding the next generation of environmental policy should not go unnoticed and we thank him for his willingness to push us to revise and update.

In addition, our respective institutions and colleagues have been supportive of our work. At the University of Dayton, the colleagues in the Department of Political Science have been very supportive and encouraging, especially Dr. Grant Neeley who is a wonderful department chair. And members of the Ryan C. Harris Learning and Teaching Center, led by

Dr. Deb Bickford, Associate Provost for Academic Affairs, have been invaluable. At the University of Montana, Sara is indebted to the encouragement and support from her colleagues Anthony Johnstone, Andrea Vernon, Adam Brewer, Christina Barsky, Sam Panarella, and Brock Tessman. And colleagues at other institutions, including Dr. Denise Scheberle and Dr. Michael Kraft, have been supportive mentors throughout my career.

Each of us is supported by wonderful friends and family members who must be mentioned.

Sara could not have written this second edition without mentioning the support of family and colleagues. Her interests and passion for environmental policy come from living in the American West. The support of her parents to move west for graduate school was a life-changing experience, of which she is forever fortunate. Countless hikes and runs with her husband, Bob, provided an appreciation for the natural beauty of Arizona and Montana and its importance to the future of environmental policy. He has also supported countless revisions and editions. I am extremely fortunate to have learned from the best and brightest minds in the discipline from Northern Arizona University and Colorado State University—Drs. David Schlosberg, Jacqueline Vaughn, Chuck Davis, Sandra Davis, and Robert Duffy.

Most importantly, my students continue to inspire me. I am unbelievably humbled by and honored to work with so many students over the last decade. Their commitment to providing solutions for environmental problems is insurmountable, yearning to learn more and ask how. To my students that worked numerous hours to write their own plans to meet the University of Montana's carbon goals, thank you. This was not an easy endeavor and you each saw the politics behind policymaking firsthand. Regardless, our students are the future to our environmental success. As educators, we must continue to push ourselves and our students to discuss a variety of solutions to address the very real and imminent environmental problems of today and tomorrow.

Michelle must acknowledge teachers, mentors, colleagues, and friends and family. My abiding interest in environmental policy regulation started as a young girl interested in marine mammals, and this curiosity led to several transformative experiences as an undergraduate at Elon University. In the same year, I took environmental policy with Dr. Sharon Spray and environmental economics with Dr. Doug Redington. These courses convinced me that there was nothing I wanted to study more than environmental issues. I then had the good fortune to intern

with what was then the North Carolina Department of Environment and Natural Resources thanks to Dr. Chalmers Brumbaugh. My passion for these issues only intensified as Dr. Betty Morgan helped me find my way to graduate studies in public administration at Virginia Tech. There, with the guidance of Dr. Karen Hult, Dr. Larkin Dudley, and the late Dr. John Rohr, I was able to continue my work in this area. I owe these educators and mentors an incredible debt for helping me find my path.

In addition to these individuals, the love and support of my friends and family are essential. Sara and I first met on a panel at the Midwest Political Science Association conference many years ago, and a productive professional relationship as well as a friendship has evolved that I am grateful for. Friends have enthusiastically listened to my ramblings about my research pursuits and writing for more hours than is fair, especially Danielle, Kurt, and Kris. But through all of it, Steven has stood next to me, challenging me when needed, listening with patience and kindness, and encouraging me always. Being married to an academic is not easy and Steven is the patient and supportive partner I never even knew I needed. Quite simply, I cannot imagine my life without him. And his grace and encouragement is accentuated by the love and support of our wonderful four-legged girls. Sydney and Victoria have grown accustomed to my long hours of research and writing and sit with me when they would probably rather be doing something else. Their supportive looks and occasional snores are so often just what I need. And while Mackenzie is getting used to hours spent reading and writing, her unwavering love of life is inspiring. And to Emma and Ellie whose paws are gone from this world, but who are forever in my heart, I owe them so much.

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CHAPTER 1

# Environmental Policy in Practice

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### Lessons from *The Lorax*

Dr. Seuss’s *The Lorax* presents readers with a choice: protect the land for future use, or develop the land for monetary gain. The story unfolds as a young boy attempts to understand what caused the extinction of the beautifully colored Truffula Trees. He discovers that the trees were cut down in order to produce Thneed needed for various products. Eventually, Thneed was overproduced, causing the natural landscape to become dark and dreary—a wasteland where no one wanted to live because of all the pollution. This story reminds us what happens when we make environmental choices; cutting down trees has costs and benefits.



The story of *The Lorax* struck a chord with former administrator of the US Environmental Protection Agency (EPA), Lisa Jackson; she hoped that the book, which was turned into a feature film in 2012, would help us understand the importance of protecting the environment (Nakashima 2012). During her time at the EPA, Jackson always kept a copy of *The Lorax* in her desk to remind her of the importance of protecting the environment (Boyle 2010). Even though the *Lorax* is a children's story, it serves as an essential lesson for modern-day environmental policymaking—"Unless someone like you cares a whole awful lot, nothing is going to get better. It's not" (Suess 1998).

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The United States continues to confront a host of environmental issues that range from protecting the gray wolf in Wyoming, preventing drinking water contamination in Flint, Michigan to endeavoring to preserve biodiversity and combating climate change. Although the environmental problems we confront are more complex than those in Dr. Seuss's *The Lorax*, the choices they present are no less stark. The following pages unpack these challenges by exploring environmental policy in the United States.

We begin our conversation about environmental policy by defining key terms. First, a basic dictionary definition of "environmental policy" is necessary. The word "environment" encompasses our natural surroundings and includes how it is affected (e.g., pollution, water, sanitation). Here we define environmental policy as one area of public policy that the government is called to address by its citizens. More specifically, environmental policy is government action related to the natural environment.

Environmental policy is also about making tough choices. It is difficult because it can pit individuals against one another. The American public might be vehemently opposed to shutting down a coal company Colstrip, Montana that releases harmful pollutants because it means a loss of jobs for the community; however, that same public also wants a clean environment. Environmental policymaking is difficult because it brings together an enormous array of actors—institutional (Congress, the President, and the Courts) and noninstitutional actors (media, interest groups, political parties, and the public). All of these actors have their own perspectives and their own agendas.

In addition, environmental decision-making is challenging because the information age has brought us a deluge of material. Discerning fact

from fiction can be frustrating and overwhelming. Historically, institutional actors, if they did not have the requisite information to make a decision, relied upon scientific or policy experts to inform and help them make the best, most informed choice. However, the temptation for institutional actors is to bypass outside expertise and advance their own decisions with information readily available from the click of a button from the first set of results from an Internet search. Moreover, for politicians, the temptation is to base choices increasingly on how they might help secure reelection (Jacobson 2012). For instance, if an elected member of Congress' congressional district has the highest unemployment rate in the United States, the goal is not going to be to shut down the local coal mining facility because jobs are needed; and this takes precedence over protecting the environment. However, what if this coal mining company's chemicals end up in the local water supply and kill thousands of citizens? As this example suggests, environmental policy is about difficult choices.

The focus of this introductory chapter is, first, to present a few environmental dilemmas (e.g., air pollution, water contamination, garbage disposal, and species protection) in order to examine the choices that the United States has made about these issues. Then, we introduce the reader to the central theme of our book: we need to pay attention to the doers of environmental policy, as they are the people on the front-lines of environmental policy, implementing society's choices.

With the term "front-lines," we are referring to the people who implement or carry out environmental policy on a daily basis. These individuals on the front-lines include environmental rule-writers, who translate congressional statutes into actionable policy, and environmental inspectors, who ensure that your neighborhood waste management company is complying with federal law to ensure that your waste is properly stored. They also include members of advocacy groups who urge collective action as well as policy analysts who provide the important facts and analysis we need to make decisions. Further, we cannot overlook those businesses that cooperate with rule-writers and environmental inspectors to protect the environment (Pautz and Rinfret 2013). The argument we make in this book is simple: in order to understand environmental choices made in the United States, we need to pay attention to the doers of environmental policy, many of which occupy the so-called fourth branch of government (i.e., the bureaucracy).

## ENVIRONMENTAL DILEMMAS AND CHOICES

We offer a snapshot of environmental challenges (e.g., air pollution, climate change, hazardous and solid waste, etc.) and the choices the United States has made to address some aspects of these issues. These choices by no means indicate that these environmental issues have been resolved. The goal here is to introduce our readers to some examples, leaving the remaining pages of the book to fill in the details. So many of the challenges presented here continue to evolve and have no conclusion. After all, environmental policy evolves daily and with Republicans controlling the White House and the Senate and Democrats controlling the House of Representatives after the 2018 midterm elections, there will be even greater need for our institutional actors to bargain and compromise regarding the future of environmental policy.

### *Clean or Dirty Air?*

Prior to the 1970s, the air quality in the United States was often defined as unhealthy or simply dirty because of the pollution that filled the air in many of our major cities, such as Los Angeles (Andrews 2006). Among the culprits of the dirty air were six major toxic pollutants: sulfur dioxide, nitrogen dioxide, carbon monoxide, particulates, lead, and ozone (Andrews 2006). These six pollutants are of concern because of their impact on the health and well-being of humans; but, what are the origins of these pollutants? For instance, carbon monoxide (the most common of the six) is colorless and odorless and is a product of burning fossil fuels (including running your car), and when there is too much of it in the air, it can cause an array of cardiovascular problems and even visual impairment.

Because of such concerns, Congress decided to establish air quality standards with the passage of the Clean Air Act (CAA) of 1970, which created National Ambient Air Quality Standards (NAAQS). The EPA, in implementing the NAAQS, established limits for the aforementioned six pollutants and continues to enforce these standards across the country (Kraft 2017). Going back to our example of carbon monoxide, the NAAQS standards forced car manufacturers to devise ways to produce cars that are cleaner burning. The EPA suggests that, when examining these six areas of pollutants that lead to poor air quality, significant improvements have been made over time. The EPA reports that, from

1980 to 2017, air quality in the United States has improved because the agency set standards that were required to be met; if not, fines resulted (US EPA Air Quality Trends 2014). To demonstrate some of these improvements, the EPA's longitudinal study of carbon monoxide from 1980 to 2017 reports a decrease by 77% (US EPA Air Quality 2014).

Cleaning up dirty skies may not seem to be a difficult choice, as evidenced earlier; however, challenges still exist today. For instance, why has Congress not passed new legislation to combat climate change? "Climate change" is the term explaining that the Earth is warming and, according to the EPA, the Earth's temperature has increased by 1.6 degrees Fahrenheit over the last century. Accordingly, the logical question then becomes: what has caused the temperature increases? The vast majority of scientific research supports the conclusion that human activities—through the burning of fossil fuels—have released significant quantities of carbon dioxide, posing a threat to human health. However, some US politicians, including Senator Jim Inhofe (R-OK), argue that the warming of the Earth is a natural occurrence, not a human-made one, and scientists should not be trusted to make these determinations. Some members of Congress agree with Senator Inhofe, and do not see the value in pursuing climate change policy because the consequences will be realized well after their life expectancy.

The choices we have available here are to either believe or not believe the science. Does climate change exist? As President Obama noted in his 2014 State of the Union address: "climate change is a fact." For some, though, the answer is not this simple.

### *Is It Really Drinkable?*

Much like breathing clean air, it seems unfathomable that you could not drink the water from your faucet at home. However, safe drinking water has not always been available in the United States—and today there are still concerns about the tap water in Flint, Michigan. In 1976, Congress passed the Safe Drinking Water Act (SDWA). The SDWA established national standards to protect our drinking water from naturally occurring or human-made contaminants that might be found in drinking water. The US EPA works with state and local governments to ensure safe drinking water from the more than 160,000 public and private drinking water suppliers in the United States. Keep in mind that the SDWA does not regulate private wells that serve fewer than 25 individuals

(US EPA Drinking Water 2014). However, the United States does have some of the cleanest tap water in the world, which ensures we do not fill our drinking glasses with chromium or chlordane (Andrews 2006).

Threats to our drinking water still exist (McLendon 2014). One of the problems with the SDWA is that it does not regulate “nonpoint” sources, which include runoff from farms (e.g., cow manure), construction, or stormwater runoff (e.g., you are washing your car and the soap goes into the nearby drain). Thus, our water can still become polluted from sources that are classified as nonpoint because the exact origin cannot necessarily be determined. Let us hypothesize that a nearby river necessary for a town’s water supply has high traces of fecal matter. The presumption is that the source of the contamination could be from the adjacent yogurt factory that has thousands of cows grazing in close proximity to the river. However, there are also several large farms alongside the river. Therefore, how could someone determine definitively the source of the drinking water contamination? One option would be to blame all of the farms, or at least the one closest to the drinking water facility. We know that contaminants upstream travel downstream, but how do you determine who is responsible? It is not an easy answer.

The SDWA routinely monitors and tracks only 91 contaminants. Yet, there are new chemicals manufactured each day and we are unaware of their effects on our tap water. For instance, methyl cyclohexane methanol (MCHM), a black licorice-smelling chemical that is used to clean coal, is not on the list of 91 routinely monitored contaminants. In 2014, a water treatment plant near Charleston, West Virginia found this chemical in the water (Levitz et al. 2014). Ingesting this chemical can cause vomiting and other flu-like ailments, but much is still unknown about MCHM.

MCHM’s scary counterpart, TTHM (trihalomethanes—used in disinfection byproducts) was found in Flint, Michigan’s drinking water supply in 2015. The City of Flint’s testing showed high levels of lead in the drinking water supply—104 parts per billion. The acceptable EPA rate is fifteen parts per billion. These high levels of lead sparked a state of emergency declaration ordered by then President Obama. The argument in 2018 is that Flint’s drinking water is still unsafe (Kennedy 2016).

The question driving these incidents is whether or not the EPA, or state equivalent, should be required to examine and test every single chemical ever manufactured, which would take significant amounts of time and resources.

### *Taking Out the Trash*

No one—except *Sesame Street*'s Oscar the Grouch—likes trash, but few people think about it once the local garbage collector picks it up weekly and drives it away. However, there are safeguards—just as with the air we breathe and the water we drink—to protect us from solid waste through the Resource Conservation and Recovery Act (RCRA) of 1976.

Prior to the 1970s, the customary approach to taking out the trash was to dump it cheaply—often, in the ocean or burning it in a dumpsite (Andrews 2006). Obviously, these practices were not environmentally friendly and, with the creation of RCRA, Congress required the EPA to develop criteria for the safe disposal of hazardous waste. For instance, former EPA administrator William Ruckelshaus tried to implement “Mission 5000” to close 5000 out of the 14,000 reported dumps across the United States and convert into sanitary landfills. Ruckelshaus fell short of this mission, but, over time, all dumps had been closed and converted to sanitary landfills (Andrews 2006). By the 1980s, RCRA became even more stringent because of two horrific stories of hazardous waste disposal in Love Canal, New York and Times Beach, Missouri. Congress was disappointed with the EPA during these hazardous waste crises and amended the RCRA in 1984 to enact more stringent provisions requiring rapid EPA action (Kraft 2017). More specifically, the Comprehensive Environmental Response and Liability Act (CERCLA) of 1980 was set up to help provide the cleanup of previous toxic dumping sites.

According to the EPA, Americans generated about 250 million tons of trash in 2011 and, of this trash, 87 million tons were either recycled or composted (US EPA Wastes 2014). However, since 1960, these waste totals have increased by almost 60%, which is burdening local landfills that are on the brink of capacity in urban areas such as New York City, where expansion is limited (US EPA Wastes 2014). Many Americans do not consider the disposal of our daily trash as a crisis because we pay a monthly flat fee and it is easily taken away from our homes.

Regardless, the United States is facing a solid waste problem because landfills are full and finding new space is problematic—after all, who wants a landfill built next door. But, what are our choices in addressing our overcrowded landfills? One option is to provide incentives or more stringent policies that mandate recycling and composting to help alleviate overcrowding concerns. Another option is to charge Americans

based upon their monthly use—the less you throw away, the less you get charged. Alternatively, all elementary and high school students could be required to take a class on the best practices of how to reduce the waste we generate. These options could be plausible, but are probably impossible because Americans hate to be required to do something.

### *Why Should We Care About Plants and Animals?*

Apart from assuring that air and water are clean and the land is safe for humans, the United States has also been active in protecting the environment for plants and animals. On December 28, 2018, the United States celebrated the forty-fifth birthday of the Endangered Species Act (ESA) of 1973. The United States is one of the few countries that has national legislation to protect animals and plants from becoming extinct. Under the ESA, the U.S. Fish and Wildlife Service (USFWS) has the authority to protect and list endangered and threatened animals and plants. To date, the USFWS, through the ESA, has been able to protect approximately 99% of all species and plants that have been placed on the endangered or threatened lists from becoming extinct (Environment News Service 2014). The Trump administration is considering ways to weaken the ESA by adopting language to provide leniency for effected businesses (Resnick 2018).

Nonetheless, the ESA, like many other environmental laws, can spark controversy. For instance, what if you want to build a new golf course, but are told you are unable to do so because the building plans would inhibit the nests of the California Condor? Or, what happens when the USFWS determines that a species has met its population threshold and hunters determine in Wyoming that they will shoot and kill gray wolves to protect their livestock? The ESA is a noteworthy piece of legislation, but it has not come without controversy, particularly in western parts of the United States (Rinfret 2009).

As noted in the opening pages of this chapter, environmental policy is created through the efforts of various institutional and noninstitutional actors. As we have seen in a few of the aforementioned dilemmas, environmental issues can and do result in difficult choices. These choices have become even more difficult because of congressional gridlock—the inability of congressional policymakers to reach a compromise. Gridlock is problematic because many of the lingering challenges, ranging from climate change to what to do with overcrowding landfills, affect the daily

lives of Americans; no one wants water that we cannot drink because of a chemical spill. Even with gridlock in Congress, environmental choices and policy are being made through a less obvious means.

While it is true the federal government creates environmental law for states and local governments to implement, this does not mean they are unimportant. With any environmental law, states must implement federal policy. States, however, can exceed federal minimum requirements or if there is not a federal policy (i.e., 10th amendment), states can create their own. California, for example, routinely sets much stronger environmental policies than the federal government does. In 2013, California created its own cap and trade system to reduce its greenhouse gas emission levels. Although touted by environmentalists as a work in progress, the California Supreme Court ruled it is not an unconstitutional tax on businesses. By way of comparison, the United States Congress has failed to adopt a national level cap and trade system.

Environmental policymaking is also made by bureaucrats in government agencies. For example, environmental rule-writers in the USFWS used legislation like the ESA designate critical habitat to protect the polar bear in Alaska. There are also thousands of government regulators who work for state-level environmental agencies such as the Montana Department of Environmental Quality. These state-level regulators monitor the local coal company, for example, to ensure the correct scrubber on its smokestack so the company does not pollute the air we breathe.

## PLAN OF THE BOOK

The chapters in this book are designed around one central theme: to better understand the doing and implementing of environmental policy through the often unnoticed actors on the front-lines. This is not to say that we disregard the more prominent actors, but we emphasize those actors who are often overlooked or absent from other textbooks. We argue that this focus is especially important in an era of congressional gridlock or lack of policy action for the environment at the most macro levels. Accordingly, this book addresses several elements missing in existing texts: (1) explanations and discussions of policy implementation from an institutional perspective, (2) illustrative case studies explaining foundational concepts, and (3) voices sections in each chapter so that readers can connect theory with practice.



In order to provide a solid foundation for our readers, Chapter 2 focuses on establishing a context in which environmental policy is made. This chapter begins by considering the history of environmental protection in the United States, starting with the conservation and preservation movements in the late nineteenth and early twentieth centuries. We focus on the modern environmental movement in the 1960s and overview the social and political movements that culminated in more than two dozen major environmental laws, which continue to provide the backbone of US environmental policy today. Within his conversation, we trace public opinion on environmental matters, past and present.

The final section of the chapter explores the role of scientific knowledge and information in environmental policy discussions. American society is seemingly more skeptical about scientific information than it was in the past; such skepticism impacts public discourse on environmental matters. Transmission of scientific knowledge is important, as the various perspectives on environmental issues increasingly debate the science itself, rather than debating what should be done in response to the science. Many of the insights we can draw contemporarily about environmental issues can be understood by how American society views scientific information. These discussions of public opinion and science help contextualize our look at the role Rachel Carson had in spurring a national focus on environmental concerns through her ability to communicate complex scientific information to the general public, notably through *Silent Spring*. The case study in this chapter considers the still ongoing drama in Flint, Michigan and the safety and quality of the drinking water in this city.

Chapter 3 builds on these foundations by delving into the process of policymaking in the United States. We begin with an overview of public policy and explore the stages heuristic model as a framework for understanding how policy is made. To help illustrate the realities of making environmental policy, we then review the stages model's shortcomings in understanding environmental policy. We use this discussion to demonstrate that environmental policy is not, often, made in the neat, linear fashion many would think; rather, it is a complex process that is often messy, vague, and unpredictable. After demonstrating the complexity of the policymaking process, we consider the various factors that influence the crafting of policy. Our case study in this chapter explores the policymaking process by using Superfund as an example. For our voices section, we examine the efforts of Governor Moonbeam, also known as

Governor Jerry Brown, to challenge his congressional colleagues to fight for the environment.

Chapter 4 delves into the key institutional (or official) actors and their impact on US environmental policy. More specifically, this chapter provides an in-depth discussion of how Congress, the courts, and the presidency have shaped environmental policy in the twenty-first century. In particular, we offer a brief overview of how each of the three branches of government has been instrumental in crafting the US environmental policy regime and how each of the players' roles has ebbed and flowed in recent decades. These perspectives are captured with our voices section on Senator James Inhofe (R-OK), and our chapter case study documents why congressional committees serve as the gatekeepers to US policymaking.

Chapter 5 examines the instrumental role that a variety of “unofficial actors” (i.e., interest groups, the media, and lobbyists) have played in shaping environmental policy in the United States. To understand the remarkable impact that groups can play in policymaking, the chapter begins with the voices of Women’s Voices for the Earth, an organization devoted to sound the alarm on harmful toxins in women’s feminine products. Detox the Box demonstrates how the work of grassroots interests can affect change on the front-lines of environmental policy. The closing section of the chapter uses the case of Daniel McGowan to determine whether the actions of this unofficial actor should be classified as environmental terrorism.

How vague policy language is translated into rules and regulations for organizations and individuals to follow is the focus of Chapter 6. The rulemaking process is frequently ignored in environmental policy discussions; however, it is through this process that policy is put into action. We begin this chapter with lessons from our voice, former EPA administrator Scott Pruitt. Then, we provide an overview of the rulemaking process, from the pre-proposal stage to rule finalization in the *Federal Register*. To document the nuts and bolts of the rulemaking process, the case study for this chapter examines corporate average fuel economy (CAFE) standards and how presidential changes can engender regulatory rollbacks. As our case study and voices section demonstrate, rulemaking is important, especially environmental rulemaking, but politics can affect progress.

Crucial to understanding environmental policy on the front-lines is investigating how environmental policy is implemented. Chapter 7 turns to the regulatory environment and begins by discussing the nature of

command and control regulations and how they are the primary tool of environmental policy. In particular, we draw connections from earlier chapters as we discuss the governing and economic contexts that shape the implementation of environmental policy. As in Chapter 6, we focus on the actors in environmental policy in this chapter by highlighting the role of environmental inspectors, particularly the inspectors at the state level. These inspectors are the government officials who are responsible for the implementation of environmental regulation every day. We look at who these individuals are and what their experiences and challenges are like. For the case study in this chapter, we focus on the story of a regulated facility, its perspective, and the perspective of its environmental regulator. In our voices section, we explore the stories of a state air pollution control inspector, which enables our readers to gain a thorough understanding of what it is like to be an inspector. This discussion helps us understand the individuals who are responsible for protecting the environment on a daily basis.

Figuring out if environmental policy is working is more critical now than ever. Chapter 8 provides an overview of how environmental policy is evaluated and the complexities of its evaluation. Much of policy evaluation has to do with the quantification of various variables, which is understandably complex in this policy realm. We consider how this is done, with a significant portion of this chapter devoted to both understanding how cost–benefit analysis and risk assessment are conducted. Our chapter voice and case challenge the contemporary notions of cost–benefit analysis through an examination of environmental justice. Our voices section notes the important work of Matthew Tejada. Our case study examines longitudinal research on commercial hazardous waste, defining for the reader, the intricate details of environmental justice in the United States.

Chapter 9 explores the natural resource and energy policy nexus that often defines environmental policy in the American West. This chapter begins with the voice of Representative Raul Grijalva and a family vacation to Grand Canyon National Park. This introductory story gets at the heart of the interconnectedness of natural resource and energy policy. The majority of public lands are managed by federal agencies (e.g., BLM, USFWS, USFS, NPS). Yet, within these lands are resources that could be used for energy development in the United States. The chapter concludes with the case of the Dakota Access Pipeline to the true complexities of the actors involved trying to influence public policy outcomes.

Discussions of environmental policy often focus on pollution, natural resources, and energy. The role of food production and consumption on these areas is significant, so Chapter 10 focuses on food policy. The chapter begins with a look at former First Lady Michelle Obama's White House vegetable garden as indicative of the complexities and intersectionality of food and the environment. Then the chapter goes on to discuss food production and consumption in the United States, along with the role of the government in providing dietary guidance to Americans. Nutrition labels on food products sold in the United States are a piece of the government's role in protecting public health and ensuring food safety. The role of food in our society and the cultural trends around the topic are also investigated. The case study in this chapter explores the challenges of creating regulations for the national school lunch program.

Finally, Chapter 11 looks at environmental policy, past, present, and future. The chapter offers three overarching characteristics of environmental policy today: (1) hyper-partisanship, (2) gridlock at national level, and (3) emerging questions about the role of government in environmental protection. The chapter notes that uncertainty abounds about the government's role in environmental protection. This does not mean environmental issues will halt government action, but instead, demand solutions for growing consequences we face. Accordingly, we identify five needs for the future of environmental policy in action.

## CHAPTER WRAP-UP

Overall, this textbook provides a comprehensive look at the creation, implementation, and evaluation of environmental policy. Understanding environmental policy is not just a function of political science that many traditional environmental policy textbooks emphasize. We continue where many textbooks leave off with discussions about the roles of political institutions and we build on this conversation with an examination of how environmental policy is implemented and evaluated from the ground up.

Therefore, we examine the processes of implementation and evaluation along with the often-neglected actors who are critical to these aspects of environmental policy (i.e., environmental inspectors and rule-writers). Such an examination is particularly important as most environmental policymaking is done via alternative means because of persistent congressional gridlock. Nevertheless, as the Lorax says, "It is not about what it is. It's about what it can become" (Seuss 1998).

## SUGGESTED RESOURCES

### *Readings and Websites*

- Andrews, Richard L. *Managing the Environment, Managing Ourselves: A History of American Environmental Policy*. New Haven, CT: Yale University Press, 2006.
- Fifth Assessment Report. “Intergovernmental Panel on Climate Change.” Accessed October 15, 2018. <http://www.ipcc.ch/report/sr15/>.
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### *Films or Videos*

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- The Future of Energy: Lateral Power to the People*. 2016. Directed by Brett Mazurek.
- The 11th Hour*. Directed by Leila Conners and Nadia Conners. 2007. Appian Way, Greenhour, and Tree Media Group. DVD.
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- . "Drinking Water." Accessed January 20, 2014. <http://www.epa.gov/epawaste/nonhaz/municipal/index.htm>.
- . "Wastes-Non Hazardous." Accessed January 20, 2014. <http://www.epa.gov/epawaste/nonhaz/municipal/index.htm>.