HOW AN INCONVENIENT TRUTH EXPANDED
THE CLIMATE CHANGE DIALOGUE AND
REIGNITED AN ETHICAL PURPOSE IN THE UNITED STATES

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By

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ABSTRACT

This thesis analyzes the impact of the documentary An Inconvenient Truth, released in the United States in June 2006, which featured former vice president Al Gore discussing the causes, urgency and moral obligations of climate change. The film, which was published as a book by the same name, used PowerPoint slides of statistical models, photographs of melting glaciers, animation, and a personal narrative by Gore to communicate the science of climate change and to invite viewers to relate to the personal responsibilities of the warming planet.

Before the film, climate change in the U.S. was largely a debate about the scientific proof and partisan politics of the issue, whereas afterwards it evolved into an issue of ethical concern. In recent years, the public’s understanding and awareness of global warming has risen so that the majority of Americans say they agree with the world’s leading scientists that the planet is warming due to humanity’s burning of fossil fuels and is a responsibility of ours to fix. While the response is attributable to many factors, research and data show that unlike any work or event before it, the film was a turning point for shifting America to think and act more consciously about the warming climate.

Chapter 1 focuses on the history of the environmental movement in the U.S.; chapter 2 discusses five events which preceded the film’s release--Hurricane Katrina, the wars of Afghanistan and Iraq which were growing in size, scope, duration and death tolls, President George W. Bush’s low approval ratings, Gore’s evolving image as scientifically credible voice
and a stable national economy--and opened a window for the message to be noticed; chapter 3
discusses the ethical message of the film; chapter 4 discusses public perceptions and behaviors in
political, media, university, corporate and philanthropic circles in the years after the film, the
post-An Inconvenient Truth era. The paper’s conclusion acknowledges that Americans’ opinions
and behaviors vary based on age, political persuasion, socioeconomic class and education levels.
It also recognizes that there is often still a disconnect between the expressed opinions and the
behaviors of many Americans. In light of these challenges, this thesis looks to learn from the
consciousness put in motion by the film and other timely events, and offers insights into what is
needed to maintain and encourage such ethical reflection moving forward.
PREFACE

At 25, someone told me, “Be careful about what you let into your mind. You want to let in the good literature in your youth because it carries over into who you are as an adult.” Around the same time, a friend suggested that I apply to the Georgetown University Master of Liberal Studies in Human Values (MALS) program which later accepted me. The program is a rich, deep interdisciplinary curriculum, focused on ethics and morality with the intent of educating the whole person and to prepare students to discover the true nature of one’s values and ideals. A 2010 copy of program’s brochure says it is rooted in, “…the belief that human life and human action have meaning and that human beings, throughout their lives, must seek it out and live by its implications.” It goes on to say that courses “…are meant to bring [students] the range of knowledge and vision to lead wise and rewarding lives…At the core of these discussions are the values humans cherish and debate….”

Studying with the MALS program matured me into a more reflective and confident person, aware of and compelled to seek out ethical conversations and to establish my own opinions and the practices to reach them. The late professor Randy Pausch of Carnegie Mellon once said that, “When you do something young enough and you train for it, it just becomes a part of you.” The Georgetown MALS program became this for me, instilling ideas, confidence and the habit of asking tough questions and seeking out experiences, people and conversations concerned with living examined lives. It became a lens to see the world, people, situations and an exercise in avoiding impulsive or presumptive judgments.

My own journey to care about the environment and climate change, which is the focus of this thesis began as a child when my parents’ jobs, adventurous spirits, and fond memories of a place they had lived as newlyweds, moved our family from the Virginia suburbs of Washington, D.C. to Nairobi, Kenya in 1988, when my brother, Todd, was six and I, four. For four magical and
memorable years, we lived there along the equator, where my parents worked in the U.S. Embassy and Todd and I attended the International School of Kenya (ISK) with classmates from around the world. Weekends were often spent in the awe-inspiring vistas of Kenya’s famous grassy savannahs, rolling hills, and idyllic coastline looking at wildlife and enjoying the natural world. Those experiences stayed with me long after, inspiring adventures outside and around the world and intrigue in different environments and people’s tendencies to protect them, to play in them and to disregard them.

When thinking about the thesis requirement for the MAL S degree, I thought back to a night in June 2006 when I saw the documentary An Inconvenient Truth which features former vice president Al Gore talking about the causes and urgencies of climate change. People can read and write the reports telling them how serious climate change is but in this age of relentless information and visual storytelling, a film can change the way people think and act. It did, for me and probably for some of the people, companies, organizations and examples mentioned in this thesis.

At the same time I began the MALS program, and just two years after seeing the film, I started a job in environmental conservation. My interest in the film, a passion for the environment and my own experiences, compelled me to look at if and how the film changed thoughts and actions around climate change in the U.S. After all, in Hot, Flat and Crowded, Tom Friedman writes, “… Al Gore, a politician, became the global figure to popularize the threat of climate change [which] is itself a revealing tale…”
ACKNOWLEDGMENTS

I wish to acknowledge many dear people that contributed to the passion, interest, research, steadfastness and completion of this thesis. There are so many other special friends, colleagues, classmates, teammates, coaches and travel mates that entertained my thoughts and offered advice during these years of research and writing who have not been mentioned by name. Your enthusiasm and kindness is not forgotten. Thank you!

First, I wish to thank Georgetown University and the Master of Liberal Studies (MALS) program for an opportunity that has given my life new meaning and direction and a means to explore the world of ethical questions and what they mean to us personally as individuals.

Second, I wish to thank the faculty and classmates in the MALS program, especially professors Dr. Terrence Reynolds, my thesis advisor, Dr. Frederick Ruf, for guidance, patience, and encouragement (and extensions) throughout the many months of this process and Anne Ridder, Assistant Dean of the MALS program who was unceasingly patient, kind and sharp for the four years I was in the program.

Thirdly, I want to thank my family and friends who have been my inspiration for leading and seeking the examined life: my late father, Ron Johnston and my mother, Maureen Johnston, for the early experiences and memories of falling in love with and amazed by the natural world—in the savannah of the Masai Mara, the lush Great Rift Valley, and the white, sandy beaches of Mombasa in Kenya. Along with those memories and later experiences you gave me, I grew up seeking experiences in nature and with friends, teachers and colleagues who further nourished this. Thank you! To my late grandfather, Al Mirring; my older brother, Todd Johnston, my friends Meghan Ogilvie, Beth Argentieri, Leigh Ann Mastrini, Casey McCluskey, Dan Crowther, William Barrett, Jessica Kaplan, Sarah Smith, Jessica Starner Viator, Gianina Ferraiuolo, Chris Burnett, Kevin May, Jenny Nichols, Iciar Gomez, Dr. Robin Moore, Billy Crosse, Dr. Frank
Larsen, Ina Hoxha, Leo Bottrill, Dr. Madeleine Bottrill, Lucy Yarnell, Suzanne Livingstone, Dr. Giuseppe DiCarlo, Valeria Guelman, Kate Goodman, Ben Mahler, Dr. Nick Birch, Tim Noviello, Raquel Krähenbühl, Carmen Del Río Paracolls, Alex Hery, Patricia Yakabe, and Dr. Edward Weisband and Dr. Fritz Oehlschlaeger of Virginia Tech.

And finally, I wish to thank my colleagues at Conservation International (CI), especially John Watkin, Deborah Rainey and Miguel Morales; the Ecosystem Finance and Markets Division for support and commitment to protect places and the people in them that matter and need support. Also to the colleagues and conservation champions I’ve worked with in Latin America, the Pacific Islands, the Caribbean, the Mediterranean, East Africa and the U.S. because of my jobs at CI--thank you for inspiring me to believe in the force of change and to seek out ways to motivate one another to protect the planet.
DEDICATION

To my remarkable mother for unconditional love, support and the gifts of exposure, travel and the value of education, which she always said, “…is something no one can ever take from you.” Your love and support raised me to believe I can use my life to be whatever I could dream it to be; and for always pushing me to be better, truer, more honest and always grateful for the people and experiences that helped me along the way. These are gifts that I carry with me, always and everywhere. And for free rent, home cooked meals and rides from the Metro during the first couple years of graduate school and proof reading and encouragement in the later years.

To my late father for courage and wanderlust that took him from his childhood home in Southern California to life abroad as a young adult in East Africa and later raising children to be just as curious, sensitive and thoughtful about places, people and landscapes we knew and those we had yet to meet. It is because of him that I was introduced to foreign worlds and magnificent places and creatures so early, experiences which grew in my mind and my memories for curiosity about making a positive impact on the world. To my older and only brother, Todd, who inspires an insatiable appetite for knowledge, thoughtful conversation, a life of simple pleasures and endless fits of laughter. To my gentle grandpa who inspired kindness, patience and believing the best of all people, places, ideas and possibilities.

To some of my oldest and dearest friends: Meghan Ogilvie (for optimism and listening), Beth Argentieri (for teachable moments), Leigh Ann Mastrini (for logic and good humor) Casey McCluskey (for discipline and drive), Dan Crowther (for love of the outdoors, especially San Giorgio and Dragon’s Tooth), William Barrett (for creativity, improvisation and Twain), Jessica Kaplan (for malecon walks), Sarah Smith (for altruism), Jessica Starner Viator (for class and color), Gianina Ferraiuolo (for café conversations), Chris Burnett (for mountains and snow passes), Kevin May (for good, will). To my green and golden friends from Washington D.C.:
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INTRODUCTION

Wangari Mathaii, the late environmental pioneer and Nobel Prize winner from Kenya, once said, “Sometimes there comes a point of consciousness where it becomes unconscionable to not do anything.” This thesis looks at the documentary *An Inconvenient Truth*, released in the United States in June 2006, which contributed to such a tipping point with respect to climate change in the U.S. Before the film, climate change was largely a debate about scientific skepticism and partisan politics in the U.S., whereas afterwards it evolved into an issue of ethical responsibility. After the film, the climate change dialogue became about moral responsibility and the greater good of society mattering more.

The film invited viewers to join the conversation about the problems and the solutions to the warming planet. The message coupled with Gore’s personal narrative and the undeniable photos of melting glaciers on some of the world’s most iconic mountains—Patagonia and Kilimanjaro—bothered Americans enough to detach themselves over time from a partisan loyalty that had driven many to see the concern as politically charged rather than morally responsible.

Chapter 1 focuses on the history of the environmental movement in the U.S. Chapter 2 discusses five events that preceded the film’s release that opened a window for the message to resonate: the aftermath of Hurricane Katrina; the wars of Afghanistan and Iraq, which were growing in size, scope, duration and death tolls; President George W. Bush’s low approval ratings; Gore’s evolving image as scientifically credible voice and a stable national economy. Chapter 3 discusses the film’s utilitarian message that says ignoring climate change is unethical. Chapter 4 discusses American public opinions and behaviors in political, media, university, corporate and philanthropic circles after the release of the film, the post-*An Inconvenient Truth* era. And the conclusion acknowledges disconnect between expressed opinions and behaviors in...
this age of climate urgency and awareness along with suggestions for what is needed to maintain and encourage consciousness of the greater good moving forward.

Climate change needed a powerful champion and the film was one of those champions, challenging and empowering audiences to no longer be ignorant or blind to the repercussions of our lifestyles. No longer was climate change issue up for debate. No longer were human actions disassociated with rising temperatures, rising sea levels, or the dangerous levels of Carbon in the atmosphere or the intensity of recent natural disaster separate from what cars individuals choose to drive, fly or consume without thinking. No longer could Americans claim ignorance or marginalize the problem to liberal environmentalists or scientific experts. It was the dawn of a new era of understanding and owning up to our fossil fuel addictions and habits.

*An Inconvenient Truth*, which also was published as a book, used a new type of communication to discuss hard science issues in easy-to-understand visuals and language combined with Power Point slides of graphs, undeniable photography and comic animations. These stylistic elements are married with an intimate narrative of Gore’s personal journey to understand the science of climate change and its connection to two family tragedies which pushed him to feel the issue as personal.

The research, data and examples mentioned in the following chapters discuss a connection between the film’s release date and a connection with an upswing in America’s conscious perceptions and behaviors so that the majority of Americans say they agree with the world’s leading scientists that the planet is warming due to humanity’s burning of fossil fuels and is a responsibility of ours to fix. While the response is attributable to many factors, research and data show that unlike any work before it, the film was a turning point for America’s climate consciousness.
Although similar rallying cries came before encouraging environmental change, including Gore’s first book in 1992, *Earth in the Balance*, it was *An Inconvenient Truth* that grabbed the hearts and minds of Americans on a scale and at a moment when the public was ready to listen. The term “global warming” was first introduced to Congress in 1988 by NASA scientist Jim Hansen testified to Congress and evolved as a political issue rather than a scientific issue of moral importance. For the next twenty years, climate change went through a wax and wane of attention and half hearted commitment on Capitol Hill and in the White House.

Early on in the film, Gore stands in front of a graph estimating this century’s increasing global temperatures, inviting anyone and everyone to become part of the conversation when he says, “Ultimately this is not really a political issue so much as a moral issue. If we allow that (global temperatures to increase) to happen, it is deeply unethical.” While intended for a global audience, on more than one occasion in the film and Gore implores his fellow Americans to take a hard look in the mirror and acknowledge ourselves as the largest consumers and fossil fuel emitters per capita). Those melting glaciers in the news and in the film become more than photographs but historical markers of our lifestyle choices: the cars we own, the televisions we buy, the food we eat, the politicians we elect, the children we raise, the jobs we choose, which all impact global warming positively or negatively.

The film was not *the* turning point, but it did mark a major turning point after which a surge in public understanding and attention to the issue started to inspire big and small change and pressure national senators and congress men and women to focus on the realities and urgencies of climate change. And though, in the recent years since the start of a great economic recession in late 2008, there has been a drop in the number of percent of Americans that think global warming is happening, there are many strong examples of individuals and industries who
are worried, who are changing their behaviors to reduce global warming. Today, the overall trend in the U.S. favors a motivated and utilitarian ethic (even if pressured by industry or obligated by a working environment) around climate change.

*An Inconvenient Truth* is an essential study in the history of American environmental movement and the climate change dialogue. Afterwards pockets of the populace mobilized to work at reversing the largest per capita carbon footprint of any country around the world. The importance of changing American minds is essential to reversing fossil fuel consumption and inspiring other nations to do so.
CHAPTER 1

THE HISTORY OF ENVIRONMENTALISM IN THE UNITED STATES

Introduction

This chapter explores the history of the environmental movement in the United States, in order to set up a later discussion of An Inconvenient Truth’s impact on America’s perceptions of and behaviors tied to climate change. It also looks at the tension between America’s history of dynamic development and concern for the environment throughout various presidential administrations.

The history of the environmentalism in the U.S. is dynamic, inspiring and at times contradictory often with one step forward there has also been one step backwards. For example, the United States was one of the first countries to officially pioneer the idea of nature conservation, which established the first national park system which was later replicated around the world, while also simultaneously pursuing industrialization, an antidote, which encouraged natural resource extraction, development and the earliest burning of fossil fuels. In that time the tension between development and concern for the environment began along with early whispers of environmental ethics.

Throughout modern U.S. history, the industrial revolution and many modern inventions have further promoted independent thinking and living. For example, the highway system, personal cars, cheap gasoline and suburbs of modern America have nurtured an extraordinary dependence on fossil fuel like oil and coal, at proportions unimaginable when oil production first began, which contribute to a considerable amount of the world’s greenhouse gas emissions (GHG). These emissions get trapped in the atmosphere causing the Earth’s surface temperature to rise, better known as global warming, causing the climate to change. At the same time, the
American systems of democracy and capitalism promoted the rise of the individual, the pursuit of the American Dream which allows one to become anything and to gain and profit based on supply, demand, consumption and often fossil fuel dependencies—challenges for the ethical consideration of the environment.

Today, climate change is omni-present in nearly every part of American society—news headlines, educational curriculums, civil society discussions, political elections, architectural design and business and development plans, agricultural practices and corporate practices. With agreement from the world’s leading scientists, the media, and the changes in their own backyards, a majority of Americans today understand that the burning of fossil fuels is causing climate change, which affects weather patterns, sea levels, melting glaciers, animal and plant populations and other elements of the natural world to decline, worsen and disappear.

At the same time, the urban, rural and suburban designs, superhighways, schools, workplace, neighborhood and home need and still largely depend on fossil fuels, making it difficult to divorce ourselves from the cause of the problem. This has posed major challenges in convincing Americans that climate change is real, human caused and an ethical responsibility. A look back at history will provide clues as to how we got to this point and what direction we are heading.

**The Beginning of Environmentalism in the U.S.**

Climate change, as a salient and moral issue today, reflects recent efforts but also events and moments that came before *An Inconvenient Truth* that nurtured or neglected environmental consideration and influenced a utilitarian opinion of climate change. To understand the impact of *An Inconvenient Truth*’s on the climate change dialogue in the U.S., it is helpful to trace history back nearly 250 years, when the environmental movement in the U.S. unofficially began. The accomplishments and setbacks of the environmental movement throughout the last 250 years are
told in the following pages through the stories of various presidential administrations. Each president and his legislature regarded the environment with different standards--some pushing more for environmental protection and others less so--bringing to light the tension between development and conservation and political turnover.

Throughout American history, the environment has had both friend and foe in the White House and state and regional legislatures. In the earliest years of environmental protection and advocacy in the U.S., there were fractured movements—conservation, preservation, natural resource management, which operated largely independently; whereas, today there are a variety of disciplines concerned with environmental protection, which today fall under an umbrella as being “green,” including biodiversity (“all living things on earth”) conservation, natural resource management, sustainable architecture and urban planning, agriculture and farming and climate change adaptation and mitigation.

History books often label the creation of Yellowstone National Park in 1872 as the unofficial start of the environmental movement in the U.S., yet it is probably more accurate to begin with Thomas Jefferson, the principal author of the Declaration of Independence, who was president from 1801 to 1809. Jefferson brought his personal interest and expertise as a botanist, scientist, architect, inventor, planner and philosopher promoted an eco-friendly vision for the country. Because of his ecological interests, history books credit Jefferson’s respect for nature as a constant in his work. For example, after securing the Louisiana Purchase, he sent explorers Lewis and Clark on a voyage to research the Pacific Coast which became a legacy in biological study, mapping rivers, resources, and collecting scientific data.

Abraham Lincoln was president from 1861 to 1865 and led the country through the Civil War and ended slavery. He was also a major environmental advocate. In 1862 he established the
U.S. Department of Agriculture (USDA) and in the next year he authorized the establishment of the National Academy of Sciences, which remains a world leader in promoting and fostering scientific innovation. In 1864 Lincoln signed the Yosemite Grant establishing California’s Yosemite Valley and its Mariposa Grove of giant sequoia trees as a public trust, the first time land was set aside specifically for public enjoyment, which eventually lead to the National Parks System (NPS), a new form of environmental protection in the U.S., which has been replicated many times over around the world.

By the end of the nineteenth century, environmental awareness grew to include legal protection of natural resources of the West largely because of the urging of Henry David Thoreau’s and John Muir’s writing. Both men said people ought to become intimately connected to nature in order to appreciate it and to understand the need to care for it, a prelude to *An Inconvenient Truth’s* utilitarian message and purpose. In his famous book, *Walden*, Thoreau wrote about humankind’s relationship with nature, motivated by and based on his own experience living simply and close to nature which had a profound impact on his research and respect for the natural world. Muir’s experience turned him into a champion of nature’s inherent right, based on ecology, geology and its spiritual quality. His belief in an inherent right of nature became the foundation for much of modern environmental conservation and his impact on environmentalism and is often called the Father of the National Parks, for influencing the official protection of Yosemite, Yellowstone and national parks of the American West. He once wrote, “Everybody needs beauty as well as bread. Places to play. Where nature may heal and give strength.”1 As a writer, Muir taught people of his time and ours the importance of experiencing and protecting our natural heritage. He also established the Sierra Club, one of the country’s oldest and well-known environmental organizations.
As a thinker, political spokesman and religious person, biographer Donald Worster credited Muir with saving “…the American soul from total surrender to materialism.”

Biographer Steven J. Holmes called Muir a patron saint of the twentieth-century American environmental activity for encouraging modern environmental consciousness and because of Muir’s influence and that of photographer William Henry Jackson and artist Thomas Moran, President Ulysses S. Grant who served in office 1869 to 1972 signed legislation to establish Yellowstone as the first National Park in 1872. Ironically, this happened when oil was discovered in the U.S. and a mining law was passed allowing for large-scale, destructive extraction on public lands, with little compensation for taxpayers. Ever since, environmentalists have fought an uphill battle to regulate the extractive industry, a source of much of the world’s greatest innovations and constructions but also destructions. The products dependent upon extractive resources make life easy, efficient, and sparkly for people but also pose a major source of income, employment, controversy, and environmental degradation.

At the turn of the nineteenth century, a hunter-turned-conservationist, Theodore “Teddy” Roosevelt became president from 1901 to 1909 and popularized the values of respect for nature and environmental stewardship, when heavy logging, mining, urbanization and rapid human expansion were occurring. Teddy suffered from asthma as a child and spent hours indoors studying natural history but as an adult he bucked the caution of his childhood and became an outdoorsman and naturalist. As president, he elevated environmental conservation as a national priority, encouraging the practical use of natural resources, but not the misuse of them through wasteful consumption; he lobbied Congress to protect the country’s most important natural areas and pushed for large scale wilderness protection, signing the Forest Reserve Act of 1891 to allocate 150 million acres of timberland as national forests, create 50 wildlife refuges and five
national parks, 18 national monuments and oversee creation of the U.S. Forest Service (USFS).

Teddy’s want to protect areas and promote environmental protection is a value that influenced future presidents and Americans to a degree that is still felt today.

It was Teddy’s successor, Woodrow Wilson, president from 1913 to 1921, who oversaw the creation of the National Park Service (NPS) in 1916. Beforehand, the parks were managed independently. Today, the national park system includes almost 60 official national parks. The American-born idea of a national park system has been emulated around the world helping to conserve natural resources, plant and animal species, protection against development. During Wilson’s presidency, the automobile industry and the urban road network grew and represented progress but also put the U.S. behind European and Asian counterparts who started to developed high speed rail, extensive public transportation systems and national regulation to limit growth or reliance on personal automobiles. Wilson also signed the Smith-Lever Act of 1914, which established cooperative extensions through the land-grant universities to publish information on agriculture and science. He also increased government oversight of corporate America with anti-trust and labor laws, which laid the foundation for future environmental regulation. Wilson’s momentum, however, was stunted by his successor, Herbert Hoover.

President Hoover occupied the White House from 1929 to 33, during the bleak years after the great stock market crash of 1929 that started the Great Depression. In the name of progress, he promoted colossal dam projects (including the famous one bearing his name, The Hoover Dam) and flood control schemes, which devastated river ecosystems and forever altered the shape of the country. He also incentivized the "Own Your Own Home," campaign, which set the country on a path toward urban sprawl and created many of the carbon traps and inefficiencies of suburbanization still challenging the country today.
In the wake of the Depression and Hoover’s failed efforts, the environment needed a champion and Franklin Delano Roosevelt (FDR) filled that need among others, as president from 1933 to 1945. During what were some of the worst of times for Americans, FDR inspired America to rebuild and redirect itself. In his first 100 days in office, FDR approved several measures as part of his New Deal, including the Emergency Conservation Work Act (ECW), better known as the Civilian Conservation Corps (CCC). The CCC provided unskilled manual labor focused on conservation and development of natural resources in rural lands owned by federal, state and local governments as a means to protect the country’s national resources and to employ unemployed American men who had difficulty finding jobs during the Depression.

Between 1933-42, nearly 2.5 million men, between the ages of 18-25 and their dependent families received aid because of the CCC, while advancing nationwide protection of forest, park and farm lands and raising a generation of environmental advocates who shared that value with a generation of family, friends, business partners, neighbors and classmates and colleagues. Of their $30 a month pay, $25 went to a young man’s parents. Principal benefits of a man’s enrollment included improved physical condition, better morale, and increased employability. The CCC led to greater public awareness and appreciation of the outdoors and the nation's natural resources; and the need for a carefully planned, comprehensive national program for the protection and development of natural resources.³ In the book *Roosevelt's Forest Army, A History of the Civilian Conservation Corps*, author Perry H. Merrill writes that among the general public, the CCC became the most popular New Deal program.⁴ According to the U-S-History website, “With the CCC, FDR brought together the nation's young men and the land in an effort to save them both.”⁵

Roosevelt also helped to create the Soil Conservation Service, which took measures to promote long-term productivity and soil health as opposed to seeing it as invaluable, and largely
non-renewable, resource. He also established the Federal Aid in Wildlife Restoration Act which provides Federal aid to states to manage and restore wildlife. These programs trickled down and out, building credibility and recognizing the beauty, biological importance and need to protect the natural world for current and future generations. Such contributions become part of a national culture, just as racial equality and gender equality after residents Kennedy and Johnson signed national legislation.

In 1949, ecologist Aldo Leopold wrote *A Sand County Almanac* that is often called the most influential book on conservation saying humankind should have moral respect for the environment and that harming the environment is unethical. Leopold encouraged the idea of a land ethic that blends man, ecology and land use as we see in this statement from Leopold’s book:

> The land ethic…enlarges the boundaries of the community to include soils, waters, plants, and animals, or collectively: the land. All ethics [until then] rested upon a single premise: that the individual is a member of a community of interdependent parts. His instincts prompt him to compete for his place in the community, but his ethics prompt him also to co-operate…A land ethic…changes the role of *Homo sapiens* from conqueror of the land-community to plain member and citizen of it. It implies respect for his fellow-members, and also respect for the community as such…”⁶

Leopold’s influence coincided with an awareness of natural resource use and growing public consciousness that came about in the 1950s. Martin Smith of the PBS program *Frontline*, said scientists began to wonder if there might be a consequence so they started measuring carbon dioxide (CO2) in the atmosphere in 1958. ⁷ Until then, CO2 levels had remained relatively stable for hundreds of thousands of years, then with the dawn of the industrial revolution around the world and fossil fuels (oil, coal, and natural gas) burning, these levels rose.

In the same year of the first measurements of carbon dioxide, Dwight Eisenhower, president from 1953 to 1961, signed the Interstate Highway Act creating a vast highway system connecting all major American cities which lives on today. He said the highways were integral to
the nation's defense and a catalyst for modernization and development yet they also spiked the
demand for housing, especially single-family homes, which was assisted with government loans
and financial incentives and created the suburban landscape, a long-term energy suck of America.
The highway system connected the country across small and large distances, yet it also created a
culture addicted to automobiles and an economy that is highly dependent upon fossil fuels.
Instead highways, and the automobile and oil lobbies boomed and life in suburbs relied on the
automobile, the highway system and anywhere, anytime, cheap transportation.

Today it still proves difficult to redesign many American cities and suburbs so that
Americans disconnect from their cars and invest in mass transit system akin to the level of
Western Europe or Japan, which could significantly reduce America’s contribution to climate
change and help pocketbooks, free up wasted time behind the wheel, reduce vehicle related
accidents and even increase human interaction.

By the 1960s, the social and civil rights movement was alive and the environment got a
boost, too. With news of carbon dioxide levels and other environmental injustices, Americans
were becoming curious in problems like air pollution and petroleum spills. Environmental
organizations and activist groups like Friends of the Earth and Greenpeace, known for loud,
public demonstrations for the planet, were established. Like many Americans at the time,
President John F. Kennedy who was in the White House from 1961 to 1963, was influenced by
scientist Rachel Carson’s landmark book, *Silent Spring*, which exposed the danger of unregulated
pesticide use in agriculture. Cason suggested that DDT and other pesticides were responsible for
the death of thousands of birds and probably brain defects in humans. *Silent Spring* was a
compelling, human way to tell a scientific story, similar to what *An Inconvenient Truth* did with
climate change in 2006. The enduring question posed by Carson--whether releasing abundant
amounts of chemicals into the environment without fully understanding their effects is ethical—raised the consciousness of Americans in a single generation. In her master’s thesis, Jennifer Doak wrote that with *Silent Spring* the American public embraced the environmental movement, and a new era of consciousness of environmental issues and how people impact the environment began. After Carson public concern and an investigation commissioned by the Kennedy administration on pesticide use on health and the environment led to early discussions around the U.S. Environmental Protection Agency (EPA) which was formerly established in 1970 and in 1972, the use of DDT was banned in the country. In his introduction to the 1992 edition of *Silent Spring*, Gore said that *Silent Spring* had a profound impact on him. “…Indeed, Rachel Carson was one of the reasons that I became so conscious of the environment.”

Following the socially charged Kennedy era, President Lyndon B. Johnson, president from 1963 to 1969, prolonged the Vietnam War but accomplished social reform for civil rights, education and established Medicare, Medicaid and other social programs, including environmental initiatives. Johnson’s policies supported environmental protection through urban renewal, beautification and conservation. Two of his most important signatures approved the Wilderness Act in 1964, protecting more than 9 million acres of federal land, and the Urban Mass Transportation Act of 1964, providing matching grants for large-scale rail projects. Among others, these new standards and policies reflected the public’s newfound concern to pass state and federal levels to reduce emissions, raise gas efficiency standards for cars, and encourage recycling. Johnson’s wife who was affectionately known as “Lady Bird” and known for saying "where flowers bloom, so does hope,” and also advocated for natural resource protection, promoting parks and beautification projects, including fighting to restrict billboards to instead plant millions of wildflowers across America’s highways.
Along with the social and environmental progress of the 60s came technological advances, including nuclear proliferation and satellite photos from space exploration provided new insight and reasons for concern. Gore reflects on this defining moment in *An Inconvenient Truth* by mentioning an iconic satellite image known as “Earthrise,” pictured in Figure 1, the first picture of Earth from space that anyone ever saw, taken on the first Apollo mission in 1968. In the film, Gore says the image, exploded within the consciousness of humankind making it easier for Americans to see and understand our responsibility to protect what was previously out of our direct sight. “Within 18 months of this picture, the modern environmental movement had begun.”


Within a few years of the picture being seen for the first time, the first Earth Day in 1970, the Clean Air Act, the Clean Water Act and the Natural Environmental Policy Act all came about. Environmental protection expanded from protesting and lobbying Congress and became a people’s movement; however, little change in America’s transportation systems and the cost of
gasoline provided little incentive for Americans to stop consuming the cheap energy, which was polluting the air and waterways which the legislation was aimed at protecting. In fact the PBS program *Frontline* reported that with low prices and high demand in the 1970s, (Americans) were consuming more than ever before…and gas was cheap.¹²

Though rated as one of the country's most unpopular presidents, largely due to his role in the Watergate scandal, President Richard Nixon responded to public pressure to do something for the environment in his one term, 1969 to 1974. After the first Earth Day, when 20 million people took to the streets of Washington pressuring Nixon to create a national environmental agenda, Nixon established the EPA, and in the same year, the Clean Air Extension Act that was scaled up to from the Clean Air Act of 1963, requiring federal regulation of pollutants and enabling citizens to file charges against the government if enforcement did not happen. Nixon also signed the Coastal Zone Management Act, the Ocean Dumping Act, the Marine Mammal Protection Act, the Federal Insecticide, Fungicide, Rodenticide Act, the Toxic Substances Control Act the Endangered Species Act and the Safe Drinking Water Act.

Nixon was also one of the most environmentally destructive presidents unleashing a bombing campaign on Southeast Asia using Agent Orange and Napalm, which were weapons of war and inflicted ecological nightmares for generations of Asian and American soldiers. In addition, Nixon's Secretary of Agriculture, Earl Butz, urged farmers to plant commodity crops like corn, encouraging the rise of big agribusiness over small family farms and putting the country on track for a diet based on corn-syrup which has lead to record levels of obesity, and the destruction of millions of acres of industrial agriculture. A lasting setback for environmental advocacy came about during the Nixon years -- the Chipko Movement in India influenced by Mohandas Ghandi that established peaceful protest against environmental destruction against
deforestation by literally hugging trees. Although the movement gained some positive traction, labeling its followers “tree huggers,” it also marginalized environmental skeptics then and today.

In the 1970s the international community also began to coordinate global environmental advocacy. The United Nations Environment Program (UNEP) was established in 1972 to provide leadership and encourage partnership in caring for the environment by inspiring, informing, and enabling nations and peoples to improve their quality of life without compromising that of future generations. UNEP encouraged the commitment of global leaders like the U.S. to take on environmental commitments.

Between 1977 and 1981, President Jimmy Carter was a full time environmental champion in the White House and though he had many critics, to his credit, he focused on resource use and waste use with a frankness and urgency, never before expressed by an American president. During his inauguration, he and the First Lady even stepped out of their limousine to walk down Pennsylvania Avenue in the inauguration parade. Only Jefferson had done so before Carter, and only Barack Obama has done so since. The gesture symbolized further action to come, including installing solar panels on the White House roof (which were later removed by the Reagan administration) and setting the White House thermostats to 68 degrees.

On the eve of presenting Congress with his energy plan in the first four months of his presidency, Carter delivered a fireside chat of sorts on television, cautioning Americans to be mindful of oil consumption.

It is a problem we will not solve in the next few years, and it is likely to get progressively worse through the rest of this century. We must not be selfish or timid if we hope to have a decent world for our children and grandchildren. We simply must balance our demand for energy with our rapidly shrinking resources. By acting now, we can control our future instead of letting the future control us.
Carter established the Department of Energy (DOE) in order to establish a national energy policy promoting clean and alternative fuels. He also oversaw the passage of a number of other environmental laws, including the Soil and Water Conservation Act, the Surface Mining Control and Reclamation Act, the Antarctic Conservation Act, the Endangered American Wilderness Act and the Superfund Act. Amendments to tighten regulation of the Clean Air Act and the Alaskan National Interest Lands Conservation Act conserving more than 100 million acres and 26 rivers in America's Last Frontier. Despite many of Carter's accomplishments and attempts to avoid a crisis, while on summer vacation in 1979, the greatest energy crisis ever to hit the U.S. occurred.

Until the major energy crisis in the 70s, there was no major economic reason for the U.S. to rethink energy use; however the changed that. In response to the oil embargo imposed by Organization of Petroleum Exporting Countries (OPEC) causing several oil price increases that sent gasoline prices skyrocketing and led to severe shortages, Carter implemented corporate average fuel economy (CAFE) standards that mandated fuel efficient cars, although those standards would later be relaxed. Long gas-pump lines and short tempers started in California and spread eastward, focusing Americans' outrage over a seemingly endless economic decline. In an effort to inspire environmental concern and awareness among Americans, one of Carter's pollsters said, "What was really disturbing to me was for the first time, we actually got numbers where people no longer believed that the future of America was going to be as good as it was now. And that really shook me, because it was so at odds with the American character."

After 15 years loaded with assassinations (John F. Kennedy, Robert F. Kennedy and Martin Luther King, Jr.), the Vietnam War, Watergate, and a declining economy, history shows that Americans were suffering from a general crisis of confidence, and Carter tried to seize the
opportunity to confront the dilemma with speech meant to inspire. On the evening of July 15, 1979, millions of Americans tuned in to hear Carter give the most important speech of his presidency, when he asked Americans to join him in adapting to a new age of limits. Carter said, "The solution of our energy crisis can also help us to conquer the crisis of the spirit in our country." ¹⁵ Though he never used the word, the speech became famous and infamous, coined as Carter’s “malaise speech” for confronting and condemning his cabinet and the American public and comparing the energy situation to the “moral equivalent of war.” The tone was said to have inspired and offended Americans calling ours the “most wasteful nation on earth.” He said:

> In a nation that was proud of hard work, strong families, close-knit communities and…faith in God, too many of us…tend to worship self-indulgence and consumption. Human identity is no longer defined by what one does but by what one owns ….¹⁶

In the next decade, Ronald Reagan defeated Carter and took over the White House from 1981 to 1989. While governor of California, Reagan had been a solid environmental advocate; but as president he needed to hold onto his Republican base so he adopted an aggressive policy of issuing leases for oil, gas and coal development on tens of millions of acres of national lands -- more than any other administration in history. Overall Reagan chose not to focus on environmental consciousness and drove America back into oil addiction that Carter worked to change. Reagan’s public concerns responded only to major environmental disasters, like the Exxon Valdez oil spill of 1989 and probably caused the U.S. to move away from previous environmental gains.

In his first year in office, there was a reported major decline in the number of enforcement cases filed from regional offices to EPA headquarters, and a major decline in the number of cases filed from the EPA to the Department of Justice (DOJ). Reagan's Superfund director, Rita Lavelle, even went to jail after a Congressional investigation found her guilty in a
case of faked environmental cleanup in the private sector. Reagan also rolled back Carter's CAFE standards for car gas mileage, cut funding for renewable energy (a freefall which the industry still hasn't recovered from), and signed an executive order forcing unworkable evacuation plans on communities surrounding nuclear power plants.

Near the end of Reagan’s presidency, NASA scientist, Dr. Jim Hansen testified on Capitol Hill in the spring of 1988 introducing the now well-known concept of climate change, which he had statistically proven. In fact that spring, the temperatures climbed and experienced an usual number of floods and forest fires...1988 was the hottest year on record all over the planet, even in the Amazon,\(^\text{17}\) and the day of the hearing was the hottest day in Washington that year. Hansen testified with the data used in *An Inconvenient Truth* and still relevant to encourage change saying:\(^\text{18}\)

> Number one, the Earth is warmer in 1988 than in any other time in the history of instrumental measurements; number two, the global warming is now large enough that we can ascribe, with a high degree of confidence, a cause and effect relationship to the greenhouse effect….\(^\text{19}\)

Columnist Philip Shabecoff of *The New York Times* said that Hansen’s testimony marked a tipping point after which the warming of the planet was attributed to human actions (anthropogenic) and fossil fuels dependencies and it became a major political issue that otherwise scientists would not have taken up like they did after that.

The international community also established three international organizations—the Commission for Environmental Cooperation (CEC), the European Environment Agency (EEA), and the Intergovernmental Panel on Climate Change (IPCC)—between 1988 and 1990 in support of environmental policies. Today, the IPCC is now probably the most well known of the three, having won the Nobel Prize with Gore, and serving as the scientific intergovernmental body that reviews and assesses the most recent scientific, technical and socio-economic information.
produced worldwide. Their job is to understand climate change and inform the world of its potential environmental and socio-economic consequences.

The U.N. Earth Summit in Rio de Janeiro in 1992 convened the global community to brainstorm solutions for governments to rethink economic development and stop the destruction of irreplaceable natural resources and pollution of the planet addressing the poverty and excessive consumption by affluent populations on the environment around the world. Rio was important for transforming global attitudes and behavior that would bring about necessary changes to slow climate change. The U.N. website describes Rio as when “…governments recognized the need to redirect international and national plans and policies to ensure that all economic decisions…took into account any environmental impact….” The outcome was the adoption of Agenda 21, a blueprint to achieve sustainable development worldwide that produced results and made eco-efficiency a guiding principle for business and governments.

Two binding agreements adopted by UN member countries (and signed by the U.S.) at Rio were the Convention on Biological Diversity (CBD), committing member countries to adopt targets for protecting biodiversity, and the UN Framework Convention on Climate Change (UNFCCC), whose objective is to stabilize greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic (human) interference with the climate system.

Another agreement from Rio was the UN Framework Convention on Climate Change Convention (UNFCCC) which led to the Kyoto Protocol adopted in 1997. The major feature of which is setting binding targets for 37 industrialized countries and the European community to reduce greenhouse gas (GHG) emissions by an average of five per cent against 1990 levels over the five-year period 2008-2012. Kyoto is often criticized because the enforcement of country
commitments to lower carbon emissions, has been poorly enforced and the U.S. refused to commit to the agreement and therefore was void of having to reduce emissions.

The George H. W. Bush Sr. presidency from 1989 to 1993 did not focus on the environment or climate change much but instead launched the first Gulf War in Iraq and the national focus became military spending and job creation. Climate change awareness seemed to stop when Mount Pinatubo erupted in the Philippines, sending a huge cloud of aerosols into the stratosphere cooling global temperatures by 0.9 °F., a tricky thing in convincing the world of a warming planet. During the 1992 presidential election, Bill Clinton challenged President Bush to attend the 1991 Earth Summit in Rio, and climate change seemed to find its way into the campaign. Bush did attend and later signed the international climate treaty there but because it was non-binding, however Bush followed up with little action.

During the Clinton administration from 1993 to 2001, America’s booming economy sent more carbon into the atmosphere than ever before and America’s emissions climbed higher than ever, according to the PBS television program *Frontline*. Even with Gore as vice president, the Clinton legacy was not as green as one might suppose. Gore had published a book on his environmental interests so hopes were high for progress. Even though Gore committed the U.S. to Kyoto Protocol, the Clinton administration did not bring it to the Senate for ratification so the U.S. never had to commit to reduce GHG emissions.

Around this time, large, powerful opponents of climate change policy also paid for public media campaigns intended to raise doubt over global warming. Similar to the skepticism funded after the dangers of tobacco were publicized, the energy industry funded a group of science skeptics who suggested that global warming was not a problem.
Even though resource extraction on public lands raced ahead and the administration failed to sign the Kyoto Protocol during the Clinton administration, he did get a number of things done, including signing an executive order to preserve more than 4.6 million acres of national land, more than any other administration, and increasing protection of wetland and old-growth forest, finalizing a rule banning road construction on nearly 60 million acres of wilderness in national forests. Perhaps most significant was the Clinton administration’s extension of an existing moratorium on offshore oil leases in order to encourage cleaner more efficient energy sources. Clinton also secured more than $3 billion, an increase in annual funding, for research and development of clean energy technologies. He also strengthened the Drinking Water Act, advanced cleanup of Superfund sites and bolstered the EPA’s ability to go after polluters.

Similar to the transition from Carter to Reagan, the momentum gained by one Democratic administration faded with the transition from Clinton to President George W. Bush earned a dismal environmental record. In fact, in an October 2004 article in the political magazine, *Mother Jones*, environmental advocate Robert F. Kennedy, Jr. said, “George W. Bush will go down as the worst environmental president in American history.” Bush withdrew the U.S. from the Kyoto Treaty process altogether. In the PBS *Frontline* program, “Hot Politics,” former head of the EPA, Christine Todd Whitman referred to that as “…equivalent to flipp[ing] the bird to the rest of the world.” Bush rewrote many national environmental laws in favor of industry and staffed regulatory agencies with former lobbyists and corporate executives. He also repealed laws (and challenged enforcement) on air pollution and standards for arsenic in drinking water and urged the drilling of the Arctic National Wildlife Refuge (ANWAR) and other federal lands for destructive drilling; promoted mountaintop removal coal mining, increased logging on public
lands, slashed funding for global family planning programs; and fought against fuel economy and other efficiency standards issue of climate change.

The Bush administration was accused of politicizing and distorting government science, particularly with respect to global warming and Bush’s ties with the oil industry and their record high profits during his presidency, made him anything but an environmental advocate. The book and film *An Inconvenient Truth* was essential in bringing needed attention to climate change when the George W. administration focused on other things.

President Barack Obama, who was first elected in 2008, ran on a campaign that included environmental promises and a commitment to climate legislation. Though national climate legislation has failed to pass, he has elevated environmental protection and an energy overhaul in his economic recovery plans. Within his first 100 days in office, Obama worked to get a number of programs and energy efficient programs off the ground, including Home Energy Tax Credits and Vehicle Tax Credits encouraging Americans to buy hybrid vehicles and to give home weatherization assistance encouraging lower income homeowners to make energy efficient improvements to their homes. The First Lady, Michele Obama, also introduced an organic vegetable garden at the White House and a national campaign for healthier, cleaner foods, and encouraging Americans to use less fossil fuels by growing their own produce.

Congress and the Senate still have yet to pass a national climate policy to regulate carbon and GHG emissions, individuals, industries, schools, and corporations have taken up the call to action in their homes, neighborhoods, places of work and worship. The climate change conversation in America today overlaps with many disciplines -- architectural design, corporate social responsibility, ecology, environmental health, environmental justice, environmental conservation, and economics, to name a few--that contribute to reducing carbon emissions and
the impacts of climate change. The movement includes include more than what was once a
typical community of scientists, hunters, farmers, liberals and naturalists. Corporations, energy
tycoons, conservatives, academia, faculty, college students, public officials and others are part of
the cause to act more responsibly (some are of course more genuinely committed than others) and
are well aware of climate change. This awareness and action is no convenient coincidence either.
A major reason for the change can be attributed to a boost in attention put in motion by An
Inconvenient Truth which will be discussed in detail in chapters 3 and 4.

Al Gore’s Importance in the History of U.S. Environmentalism

For a long time Gore has been one of the world's leading environmentalist politicians.
During college and in the infancy of the climate change discussions, he became aware, interested
and morally concerned about the problems and opportunities it posed. His strong commitment is
reflected in political activity, lectures, films and books, and has strengthened the challenge to
encourage a focus on climate change. In fact, upon awarding he and the IPCC the Nobel Prize, he
was credited as the single individual who has done more to create greater worldwide
understanding of the measures that need to be adopted. 26

Gore’s advocacy of the environment began publically in 1992 with his first book, Earth
in Balance. While environmental groups and individuals, like Carson, were successful in pushing
change in the 1960s, concern over permanent change in the U.S. has been difficult, especially for
national climate change legislation to pass.

The film and Gore’s voice changed the tune of climate change. Since the 2006 release of
the An Inconvenient Truth, a majority of the American public claims to be aware unlike any time
in the past. In the post-Inconvenient Truth era, climate change is no longer a minor claim, but in
fact scientifically agreed upon (by the IPCC). From June to July of 2006, just two months after
the film's release, the Pew Research Center for People & the Press found the number of Americans believing global warming is the result of human activity increased from 41 percent to 50 percent. Beforehand, the very threats presented by global warming [were]…still not unequivocally recognized as a social problem. Today being aware of climate change is popular, politically correct and seen as being up to speed with a new norm. The rest of this thesis will discuss how the films helped to change those ideas and the ethical value systems of Americans.
CHAPTER 2

THE CONVENIENT TIMING OF AN INCONVENIENT TRUTH

Introduction

The documentary film *An Inconvenient Truth* discusses the causes and urgencies of climate change. It was released nationwide in the United States in June 2006 and became an Oscar winner and buzz word with the media and American lexicon. The timing of the film was arguably just as important to its success as its message, tone, style, and celebrity narrator, former vice president Al Gore. This chapter discusses five events that occurred before the documentary’s release in the U.S. theaters. It also briefly mentions three events that occurred after the film’s release. All of these events piqued Americans public interest and understanding of climate change and the personal responsibilities attached to the issue.

*An Inconvenient Truth* is often referred to as a turning point after which the majority of the American public shifted to say climate change is an issue of ethical responsibility (in consumer, political, corporate, educational and philanthropic behavior and norms). Research and opinion polls show that after the film’s release, concern for climate change moved from conversation among scientists, politicians and environmentalists as one of skepticism and debate to commonplace, politically progressive and mainstream. The public was beginning to understand climate change and beginning to care about their role in causing and contributing to it. In her master’s thesis, Jennifer Doak of Georgetown University wrote:

Gore…reinvigorated the environmental movement, which had long gotten anemic and inconsistent attention from the public sphere, and brought environmentalism into mainstream acceptance where before it had been seen as a fringe movement.¹

The events and the film’s moral argument dawned a new era, the post-*An Inconvenient Truth* era; thereafter climate change was real, human caused and an issue Americans were called...
to respond to. The five events that occurred before the film’s theater release that raised interest in climate change were Hurricane Katrina, which occurred in August 2005; the War on Terror in Iraq and Afghanistan which began in 2001 and was at a point of no-end in-sight and growing in size, scope and duration death tolls; President George W. Bush’s declining approval ratings, which fell to their lowest point yet on the eve of the film’s release; Gore’s changing image from a former politician (and presidential candidate) often labeled as monotone and lackluster, to a charismatic and scientifically credible voice; and lastly, the stable economy of the mid-2000s. Wartime, natural disasters and changing presidential approval were themselves starting to help Americans make the connections of climate change.

Additionally, at least three events after the film’s theater release helped to sustain attention to the ethical obligations of climate change: the publication of The Stern Report and the International Panel on Climate Change (IPCC)’s Review, Gore’s appearance on the Oprah Winfrey Show and two accolades: the film winning an Academy Award and Gore and the IPCC winning the Nobel Peace Prize for the awareness brought to climate change. Details of these events will help to illustrate how small events can cause a big shift and allow the public to see a known issue, like climate change, in a new light.

According to a poll from the Pew Research Center, in the first decade of the twenty first century, Americans said they were in a period of increasing dissatisfaction with the “state of the nation.” Such dissatisfaction of an incumbent president is often attributed to his handling of social, political, economic and other challenges of the time. Before, during and after the film’s release, George W. Bush, Jr. was president from 2000 to 2008. In the first year and a half of his two term presidency which included the September 11, 2001 terror attacks, Americans expressed initial satisfaction; however, after the initial grieving of the tragedy faded, as illustrated in Figure
When An Inconvenient Truth opened in American theaters in the summer of 2006, over 60 percent of the population expressed dissatisfaction with the state of the union, the highest point yet in the Bush presidency. At the same time the economy was performing favorably, which is usually the most prominent indicator of national satisfaction. In an online report, Pew highlighted this especially because so much else seemed to be going right in America in 2006. “Even as gas prices retreated, inflation subsided, unemployment remained mostly stable and stock markets headed for end-of-year record highs.” Additionally in 2006, Pew reported that Americans became especially curious in the relationship between high summer temperatures and the warming planet, strange weather patterns and high gasoline prices. It found that two of the top 25
news stories of 2006 were related to the environment, saying that “…high gasoline prices ranked first by 69% of those polled and hot summer weather was ranked eleventh by 38 percent of those polled.” The public’s frustration with the White House and the state of the nation may have allowed the film and Gore to emerge with his increasing scientific credibility and lack of a political campaign.

The Lessons of Hurricane Katrina

The first event that happened before the U.S. theater release of An Inconvenient Truth that gave sticking power to the film was the deadly, disastrous Hurricane Katrina along the Gulf Coast of New Orleans in August 2005. At least 1,836 people died in the storm and subsequent flooding and destruction made it the deadliest U.S. hurricane since 1928. The National Hurricane Center estimated total property damage at $81 billion, nearly triple the damage produced by Hurricane Andrew in 1992.

In addition to the loss of human life and property, Katrina chipped away at the morale of Americans and diminished Bush’s presidential approval ratings. A slow response to the disaster by the Bush’ administration and the Federal Emergency Management Association (FEMA) further hurt the administration’s approval rating. In a poll measuring post-Katrina feelings, Pew reported that two-in-three Americans (67 percent) believed that President Bush could have done more to speed up recovery, while just one in three (28 percent) believed that he did all he could to get them going quickly. As a result, Bush’s overall job approval rating fell and his disapproval rating climbed, among the highest for his presidency. Most notable was a dip in presidential approval even among Republicans, his core constituents.

In addition to the physical and psychological devastation of Katrina, the storm helped Americans begin to connect the dots of the severity of a natural disaster and changing weather
patterns, rising temperatures and other impacts of climate change. While the administration’s lackluster response to Katrina hurt presidential approval, it may have helped attention on climate change unlike any previous time. Eight months after Katrina, the PBS program *Frontline* aired an episode on climate change called, “Hot Politics.” On the program, Vijay Vaitheeswaran of *The Economist* explained that Katrina was important in shifting the conversation. He said, “It was very difficult for the Bush administration to come to grips with the science hardening;” however, neither the American public nor the administration could unlearn what we had after Katrina about the evolving power of natural disasters and the warming planet. The White House Science Office tried to control the evidence of climate change by watering down the science. Rick Piltz, then Director of the Climate Science Watch at the Government Accountability Project, coordinated a federal study, “The National Assessment of Climate Change Impacts.” The Bush White House tried to redirect public attention and ordered the Environmental Protection Agency (EPA) to remove the assessment, and any references to it, from its website. At the same moment, Gore was emerging as someone concerned and outspoken about addressing climate change rather than ignoring it.

Though Katrina offered a tangible notion of climate change, there was still major work to overcome what the Bush administration was trying to ignore. Susan Joy Hassol, a co-author of the assessment, said the choice to censor the report was catastrophic and a lost opportunity to help Americans understand the importance of climate change. In “Hot Politics,” she said, “What we missed by not having that assessment out there, for the public…‘what this means to me.’ that this is real. It’s not about someone else, somewhere else.”

Before Katrina, most Americans saw global warming as something that would affect their children or grandchildren, however, in the year after Katrina Philip Clapp, a lifelong
environmental professional, reported on PBS’s *Frontline* program, “Hot Politics,” the number of people who said global warming “…is going to affect my life,” skyrocketed. A July 2006 Pew report, “The Heat Over Global Warming,” found as many as 70 percent of Americans polled (a majority among Republicans and Democrats) believed global warming was happening. And despite partisan disagreement over the causes and solutions to climate change, the consensus about the warming planet was a step in a new direction for liberals and conservatives. While our European neighbors had already signed the Kyoto protocol, Katrina was critical to convincing a majority of Americans to connect the issue with personal vulnerability. Even pollster and media adviser, Frank Luntz, who helped write an initial memo to help the Bush administration deny global warming, later said in an interview in “Hot Politics,” that Katrina was critical. He said:

> Just as September 11th changed the way we look at national security, Katrina has changed the way that we look at weather and the way we look at global warming and climate change…We now wonder, “Is it just Mother Nature or is something else at play here?” We didn’t use to think that way. We do now.

Even with increasing concern, there was still a rather small amount of concern among Americans compared with the rest of the world. Less than a year after Katrina and just before the film’s release, a Pew poll in June 2006, found a lack of major concern among Americans over climate change compared to much of the rest of the world. Pew surveyed 15 countries, including Great Britain, Spain, France, Germany, Russia, Egypt, Indonesia and China, and found only 19 percent of Americans polled were “a great deal worried” about climate change and another 34 percent were “a fair amount worried.” Only the Chinese expressed a similar low level of concern (20 percent).
The War on Terror (in Iraq and Afghanistan)

A second event before the release of the film and critical to the film’s sticking power with the American public was the War on Terror being fought in Iraq and Afghanistan. The Bush presidency called the war retaliation to the terror attacks on the World Trade Center and the Pentagon on September 11, 2001. The administration focused on ending Iraqi President Saddam Hussein’s dictatorship and crushing Al Qaeda and Islamic extremist strongholds in Afghanistan, lead by Osama Bin Laden, the man responsible for the attacks.

Although a majority of Congress approved of Bush’s decision to go to war, a discovery which revealed that Hussein’s weapons of mass destruction (WMD), the rationale for going to war, was false evidence. With mounting death tolls, rising costs of war, no foreseeable exit strategy and evidence of no weapons of WMDs, Americans were showing signs of war fatigue. Polls revealed that overall American public approval of Bush’s Iraq strategy from 2002 to 2003 was consistently above 60 percent, but that went down as the wars grew longer, more fatal and expensive. Frank Harvey of Dalhousie University researched the reasons for the shift in opinion:

The uncovering of false claims of weapons of mass destruction in Iraq were uncovered [and], the support for the war changed. Political intent by the administration, mistaken perceptions, and intentional deceptions of Bush and…his national security team chipped away day by day… in the aftermath of September 11th to amplify Iraq's WMD [weapons of mass destruction] threat as a primary justification for an unnecessary, preventive invasion.

In the same year *An Inconvenient Truth* was released, Pew reported what was and wasn’t on the public’s mind and found the second most important concern was “Deepening Gloom about Iraq.” Just after the film was released in the U.S., Pew measured disapproval of President Bush’s handling of the situation in Iraq climbed from 58 percent in December 2005 to 71 percent by December 2006.
Throughout the year, the public increasingly came to the view that the situation in Iraq was deteriorating by the day…By December, half of Americans expressed the view that the war in Iraq will turn out to be another Vietnam, while just a third thought the U.S. will accomplish its goals there.\textsuperscript{14}

The military engagement in Afghanistan, also known as “Operation Enduring Freedom,” began on October 7, 2001 and in Iraq, known as “Operation Iraqi Freedom” on March 20, 2003. Bush’s presidency which ended in January 2009, largely focused on the wars for the entirety of his two terms, leaving little attention for other issues like climate change. Journalist Martin Smith of the PBS’s program \textit{Frontline}, called Iraq “…a war that defined a presidency…that became a war about a war.”\textsuperscript{15} In a speech to American public six months after the start of the Iraq War, Bush’s rhetoric illustrates a common tone throughout his presidency: “…The War on Terror in Afghanistan and Iraq will require a sustained commitment of time and resources, similar to our commitment to rebuilding Germany and Japan after World War II.”\textsuperscript{16}

According the \textit{Washington Post} by the summer of 2006, when the film was released, the American death toll for Americans was 86 lives,\textsuperscript{17} and at least 5,000 Afghani civilians had died.\textsuperscript{18} In Iraq, the \textit{Washington Post} reported that the U.S. death toll was up to 2,405 lives\textsuperscript{19} and 44,453 Iraqi civilian deaths\textsuperscript{20} As a note of comparison, nearly 3,000 victims died in the September 11th attacks.\textsuperscript{21}

The realities of the wars weighed on the public. For instance, in April 2005, \textit{Bloomberg News} reported, “The Bush Administration and senior military commanders have suggested…that the training of Iraqi security forces--one of the linchpins of America's exit strategy--is going so well that significant troop reductions may be possible by early next year.”\textsuperscript{22} However, one year later, when \textit{An Inconvenient Truth} debuted, American and coalition troops were still deployed and an exit strategy for Afghanistan was unknown.
By the time the Iraq War entered its third year, in March 2006 (and the U.S release of *An Inconvenient Truth* approached), Pew reported American support for keeping troops in Iraq dipped to its lowest point yet. While the public’s declining support for the war probably hurt Bush’s overall approval, it also made more room for (*An Inconvenient Truth* and Gore) calling attention to something besides the war on terror.

**Bush’s Low Approval Ratings**

The third event that happened before *An Inconvenient Truth*’s release which was important to its sticking power was Bush’s declining presidential approval ratings, which have been alluded to due to their connection with Hurricane Katrina and the War on Terror. Presidential approval ratings often reflect the events a president chooses to focus on but also those he chooses to ignore. While September 11th initially helped Bush win approval for responding to a national tragedy, Katrina and the realities of the Iraq and Afghanistan wars eventually turned to disapproval, according to data from Pew which he never recovered from.

Bush’s approval peaked in 2001 after the initial response to the September 11th terror attacks, and his approval ratings started to decline in early 2002 and never recovered. It is common for a president to receive approval after a national tragedy, so Bush’s high approval in the months after September 11th are no exception. After a small uptick in approval in early 2003, as the Iraq War began and a small spike in 2004, after his reelection, overall presidential approval declined dramatically, which opinion polls attributed to Katrina (and the economy). While his overall job rating held steady after Katrina in 2005, it quickly fell to its lowest point in 2006 when *An Inconvenient Truth* was set to be released. While neighbors around the world were said to be losing confidence in America’s diplomatic credibility, as the wars waged on, Americans at home were feeling the same way.
Figure 3 shows the change in presidential approval to disapproval was also far greater for George W. Bush, Jr., as well, than his father, George Bush Sr., and Clinton’s, even with the Monica Lewinsky sex scandal and related impeachment hearings.

It is clear that in the summer of 2006, President George W. Bush’s national approval reached a low point as the American public expressed frustration and disappointment by Bush’s response to Katrina and the war on terror, among others.

As Bush’s approval ratings dropped, he also reneged on a campaign promise to cap U.S. carbon emissions and pulled out of the Kyoto Protocol climate negotiations altogether. According to Vaitheeswaran of the *The Economist*, “It was very difficult for the Bush administration to come to grips with the science hardening…and…the administration tried…ignoring the science or trying to water it down or censor it even.” Instead of using the opportunity to educate the public on climate change, the White House Science Office deliberately tried to divert attention to
climate change deleting all references to national assessment on climate change, mentioned earlier, a ten million dollar study, and ordered the EPA to take the assessment off the website.

Even NASA scientist Jim Hansen, who was the first person to introduce global warming on Capitol Hill in 1988, said that in his thirty years in the government, he had never seen constraints on the ability of scientists to communicate with the public as strong as they were then. Individually, Hansen had to clear all public speeches with the White House. In an interview with Frontline, Hassol, a co-author of the Climate Impact Assessment said the administration’s censorship was a major misstep for climate change awareness.  

**Gore’s Rising Public Image**

The fourth important event before *An Inconvenient Truth*’s release was Gore’s rising credibility and notoriety. After losing the presidential election to Bush in 2000, he left the political spotlight, where he spent the first thirty years of his career, he left politics, to focus on climate change, a topic first introduced to him as an undergraduate at Harvard University studying under Roger Ravelle, one of the first scientists to suggest that excess carbon dioxide in the atmosphere is caused by fossil fuel emissions that cause a greenhouse effect leading to a warming of the earth’s surface temperatures.

During his political days, Gore maintained an overall favorable rating and sustained good reputation even after leaving the White House. As reported by Pew, his favorability ratings were consistently more positive than negative during his tenure as vice president, with the exception of one poll in December 2000, when he was contesting the results of that year’s presidential election. From 1992 to 2001, Gore's average favorable rating was 56 percent--with a high of 64 percent following the 2000 Democratic National Convention--and a low of 46 percent in the previously noted in a December 2000 survey. Though Americans became somewhat divided in their
opinions of him in the wake of the September 11th terror attacks from the spring of 2002 onwards, overall Gore maintained a more favorable than unfavorable appeal. So it was no surprise, but certainly helped his image in 2006 when *An Inconvenient Truth* was released and Gore’s favorability measured well above that of Bush’s.

In the three years, leading up to film’s release, Gore toured the U.S. presented a slideshow about the threats of global warming that he had started thirty years earlier. Gore had written about the climate issue in his 1992 book, *Earth in the Balance*, and been involved in the Kyoto Protocol negotiations in 1997. And in 2005, he published the book *An Inconvenient Truth: The Planetary Emergency of Global Warming and What We Can Do About* which became an instant bestseller and positioned Gore and the upcoming film under the same title as a leading champion of climate change awareness. On the July and August 2006 *New York Times* bestseller lists, the book was number one for paperback fiction. As compared to releasing the book and the film separately and dividing attention over time, releasing them in parallel probably doubled recognition and media coverage for Gore.

Though critics debated Gore’s motives for the book and the film, there was no denying his credibility after aligning with the world’s leading scientists, like the IPCC, economists and institutions. Additionally, he emerged as a charming, humorous, and compelling orator unlike during his political days when he was often characterized as monotone and lackluster. *The Observer*, a British newspaper, characterized him as "a funnier, more relaxed and sympathetic character"28 than he was as a presidential candidate.

The media praised Gore’s changed persona that attracted audiences to his book and the documentary, many of which may have previously ignored *An Inconvenient Truth* if he still harbored political ambitions or were still bored by him. A *New York Times* review of the book
which was published one week before the film release, praised nearly everything about it, calling it “…a user-friendly introduction to global warming and a succinct summary of many of the central arguments laid out…lucid, harrowing and bluntly effective…” with “a message that “…emphasizes facts over emotion, common sense over portentous predictions…and…enumerates practical steps that can be taken to reduce carbon emissions to a point below 1970's levels.” The review predicted that in today’s era of short attention spans An Inconvenient Truth “…could play a similar role in galvanizing public opinion about a real and present danger…could goad the public into reading more scholarly books on the subject, and it might even push awareness of global warming to a real tipping point — and beyond.

The Bush administration’s censorship of and disregard for the urgency of climate change probably also added to the public’s intrigue for Gore’s commitment to the issue. Gore chose to focus on the science and to address the problem by engaging Americans rather than censoring the information they could read.

Two years after the film’s release, The Pew Research Center for the People & the Press conducted research showing Gore's favorability improved from 44 percent favorable in 2002 and 46 percent unfavorable to 53 percent favorable and 36 percent unfavorable in 2008, as shown in Figure 4. The most supportive audience was college graduates who in 2008, 58 percent viewed Gore favorably, a 19-point increase from 2002. Overall Pew found 47 percent of Americans viewed Gore favorably. Pew also found the proportion of Democrats expressing a very favorable opinion of Gore increased; about half of independents had a favorable impression of Gore, up from six years previously; and Republicans' views of Gore improved a bit.
By the middle of 2006, *A Time* magazine cover story in the middle of 2006 a Time/ABC News/Stanford University poll showed that 87 percent of respondents believed the government should encourage or require a lowering of energy power-plant emissions and a *U.S. News & World Report* article reported that dozens of evangelical religious leaders had called for federal legislation to reduce carbon dioxide emissions, and that a growing number of financial investors began pushing for change from the business community. Even Hollywood started to focus on climate change in blockbuster films and by coming to him to turn the book into a film. After hearing his slideshow presentation, Laurie David, a Hollywood environmentalist, came knocking on his door. This will be the focus of chapter 3.

**A Thriving & Stable Economy**

The fifth important event (for this study) that coincided with the timing of the film’s release in the U.S. was the stable U.S. economy. Research shows the economy usually takes
precedence over nearly any other cause of public concern because a stable economy ensures job
stability, economic well-being, and day-to-day security that Americans need to feel happy,
financially secure and able to entertain and engage other concerns. In the late 90s, the Clinton
administration (with Gore as vice president) moved the U.S. to one of its best financial positions
ever—balancing the budget and creating an economic surplus. Thereafter, in the first term of the
George W. Bush administration, even though the U.S. had entered two wars in Iraq and
Afghanistan and defense spending sky rocketed, still the overall economy was in a favorable
position. And the economic stability in 2006 probably allowed American audiences to see climate
change as an issue of ethical concern, one that we now know is easily bumped down the totem
pole when the economy is unstable. This was the case after the recession and when healthcare
reform came about in 2010.

**Timely Moments in the Post-An Inconvenient Truth era**

In addition to events before the film’s release, it is also important to mention a few events
that occurred after the film’s release which sustained momentum and attention to the message of
*An Inconvenient Truth.*

**The Stern Report & The IPCC Review**

In October 2006, the *Stern Review on the Economics of Climate Change* (commonly
called “The Stern Report”) was published, in 2007 and later the *Fourth Assessment Report of the
IPCC*, came out both and bolstered the scientific credibility of the *An Inconvenient Truth*. The
Stern Report is a 700 page report released by economist Nichols Stern that discusses the impact
of global warming on the world economy, and though not the first of its kind, it is noted as the
largest and most widely known and discussed report of its kind. The report stated that climate
change is the greatest and widest-ranging issue ever seen, presenting a unique challenge for
economics, where the benefits of strong, early action on climate change outweigh the costs of not acting—disruptions which threaten the basic elements of life for people around the world—access to water, food production, health, and use of land and the environment. It also points to the potential impacts of climate change on water resources, food production, health, and the environment and provides prescriptions including minimizing the economic and social disruptions which threaten the basic elements of life for people around the world—access to water, food production, health, and use of land and the environment.

Together the Stern Report and the IPCC Assessment further elevated public concern and the political discussion about the ecological, social and economic costs of global warming. *An Inconvenient Truth* laid a foundation with the public for these more academic works to keep climate change and the film’s message prescient in American minds.

**An Appearance on Oprah**

Just as the *Stern Review* and the IPCC’s assessment were critical for making *An Inconvenient Truth*’s warning about climate change academically credible and morally salient after its film release, Gore’s appearance on the Oprah Winfrey television program also resonated echoed the message with the general public. According to a Gallup poll, in 2003, 73 percent of Americans had a favorable view of Oprah and she had an estimated 9 million American daily viewers. With such widespread respect, popularity and viewership in American culture, her endorsements are historically known for launching the success of authors, actors and entertainers, industries, products and other causes. Some studies even cite her endorsement of President Obama and his appearance on her show during his first presidential campaign, as a major contribution to his election. Gore’s appearance in conjunction with *An Inconvenient Truth* was also advantageous to the cause.
Robert Illig, a securities professor at the University of Oregon, interested in environmental concerns and climate change was so intrigued with the so-called “Oprah Effect” and Gore’s appearance on her show, that in 2008 he published a study about it. In doing so, Illig wrote, “Gore did something symbolic of a much deeper shift in the climate change conversation.” When Gore appeared on the show in December of 2006, six months after the initial nationwide theater release, Oprah threw her entire support behind him and the film *An Inconvenient Truth*. Not just once but almost every time she cut to a commercial or came back from one, she looked straight at the camera—straight at the viewers—and with the DVD in hand said, “Every household should own this movie.” Even One year after the film’s U.S. release, Illig concluded that the appearance was a game changer for the film and the climate change debate. A few months after the film’s release, he wrote:

> From an outsider’s perspective, something momentous appears to be happening in the United States today with respect to climate change remediation. People seem to be thinking and talking about global warming in a qualitatively different manner. The tone of the debate has shifted. New players have emerged…Years from now, when observers speak of the history of the environmental movement in the United States, there is a good chance they will identify the current era as a watershed moment.

**An Academy Award**

Another event after the film’s release was its winning two Academy Awards or Oscars in 2007, including one for Best Documentary Feature. The award solidified the praise by Academy of Motion Picture Arts and Sciences (AMPAS) and positioned the film as even more of a touchstone and important film for American attention. Academy Awards are somewhat of the gold standard and highest award in the American film industry and immortalize the importance of a performance or film for the annals of cinema history.
A Nobel Prize

Not long after winning the Oscars, *An Inconvenient Truth*, Gore and the International Panel on Climate Change (IPCC), made up of 2500 of the world’s leading scientists, won the Nobel Peace Prize in 2007. The prize, which is sometimes referred to as the most prestigious international prize, is awarded annually by the Norwegian Nobel Committee for outstanding contributions in the fields of physics, chemistry, physiology or medicine, literature, and peace. According to the award’s official website, winners are recognized for working across nations, for the abolition or reduction of standing armies and for the holding and promotion of peace congresses. Winning the prize validates and publicizes a significant finding or contribution on a global and historic level. Therefore winning for Gore and the IPCC, the Nobel Prize reinforced the film’s scientific legitimacy and importance. The award acknowledged the film’s perceived importance and the actual change in perceptions of climate change itself.

Of the opinion polls mentioned earlier show, there is a correlation after the Oscar and the Nobel Prize, showing increased public acceptance of climate change and decreased skepticism among the majority of Americans. For example, a Pew Research Center for the People & the Press report of “What Was -- and Wasn't -- On the Public's Mind” in 2007 found that global warming became a much more visible issue than the year before. The notoriety of the awards, the echoes of human responsibility for the issue gained traction in political, social, media, educational, corporate and philanthropic circles.

Conclusion

The film and the climate change dialogue benefited from the aftermath of Hurricane Katrina, public dissatisfaction with the War on Terror, low presidential approval ratings of George W. Bush, rising appeal of Gore, a stable economy. It also profited from collective
endorsement by the scientific community, Oprah, Hollywood and the Nobel Prize award committed. Climate change and the ethical responsibility of humans to solve it sounded by the film are as salient as ever today. Additionally in the 2008 presidential campaign between John McCain and Barack Obama even kept the issue afloat. During the 2008 presidential campaign, climate change also a platform issue and a discussion about the solutions rather than a debate about the causes as it had been in the past.

These examples show why and when the American public started to understand climate change as a real threat to life as we know it. Similar to any other issue, an increasing knowledge and concern empowered Americans to start to work together on solutions. With understanding, too, it became harder to ignore the damage we were doing.

According to former Newsweek editor and Pulitzer Prize winning author, Jon Meachem, *An Inconvenient Truth* ... “established [Gore] as an author who ‘has been early and right’ on...global trends...[whose] proven... he’s a man worth listening to...bringing...decades... of thinking and experience to... arguments beyond climate change...the global future.”

A Stanford University study on global warming in April 2007, confirmed that global warming topped Americans’ worries as the largest environmental threat. The number of Americans identifying it as the world’s single biggest environmental problem doubled from what it was a year ago. The study reported in 2007 that, “Climate change now places far ahead of any other environmental problem in the public’s mind; 33 percent (an increase from 16 percent in 2006) ....That’s soared from...a year ago Additional over 50 percent found the issue personally important, compared to less than 30 percent in 1997.

These findings are at the heart of film’s utilitarian message, the focus of the next chapter: how to act in ways that are ethical and provide the greatest good to the most, while causing the
least harm to the least. For instance, in from a Pew survey mentioned earlier, just one year after
the film’s release Americans overwhelming expressed a willingness to modify their lifestyles. It
reported:

…nearly all Americans – 94 percent – say they’re willing to make changes in their lives
in order to help the environment generally; 80 percent say so even if it means some
personal inconvenience. In one key area, nearly three-quarters (73 percent) say they’re
already making efforts to reduce energy consumption in their homes. 37

How and to what extent changes have occurred will be discussed in chapter 4. Though all
of America was not fully persuaded by the film that global climate change was an imminent and
ethical problem, it did gain both new and unlikely advocates of climate change awareness and
action after its release. A November 2006 column of the Hartford Courant by Jane Danowitz,
which coincided with the Thanksgiving holiday, reported a gratitude for the change. “It may have
taken Hurricane Katrina, melting of polar ice caps, drought and wildfires, and a popular movie by
former Vice President Al Gore, but the nation finally seems ready to tackle the ‘inconvenient
truth’ of global warming.” 38
CHAPTER 3
THE ETHICAL IMPERATIVE OF CLIMATE CHANGE

Introduction

Chapter 3 is focused on the ethical message of the documentary *An Inconvenient Truth*, which was released in the United States in the summer of 2006. The film’s celebrity narrator and former vice president of the U.S., Al Gore says that climate change is a moral issue that cannot be ignored. The rationale of the message is in fact comparable to philosopher John Stuart Mill’s interpretation of utilitarianism which judges the rightness of an act based on it contributing to the greatest happiness of the most, and avoiding pain or displeasure for the most. Gore poses ideas like the environmental burdens of climate change a collective responsibility of all human beings.

The film is narrated by Gore and uses a PowerPoint slideshow with scientifically credible statistics, photographs of melting glaciers, easy-to-understand animation and personal anecdotes of Gore’s life and to care about the warming planet. The film attempted to illustrate the natural world but also the pains we are causing to it, to one another and potentially to the future of the both with some of our actions if not considering the greater good of them. It also shares at least three anecdotes from Gore’s life that relate climate change to a great moral responsibility. The message and how people latched onto it was an immediate success, while the ethical style was more of a secondary discovery. The stories from Gore’s life invite viewers into ordinary slices of his life, probably not unlike those of themselves.

At the beginning of the film, Gore introduces his motivation to leave politics to dive headfirst into championing the issue. He says, “I’ve been trying to tell this story for a long time, and I feel as if I’ve failed to get the message across.”1
Like other pivotal nonfiction works, such as *The Jungle* and *Silent Spring*, *An Inconvenient Truth* asked Americans to check our national conscience and encourage audiences to learn about the causes and realities of climate change and persuade viewers to see the issue as more than the mere scientific or political debate.

*An Inconvenient Truth* suggested that climate change is something we are all responsible for responding to based on the well-being, or greatest happiness (and to avoid the greatest harm), for the greatest number of populations—today and tomorrow; our actions as individuals, students, constituents, businesspeople, civil servants, doctors, lawyers, teachers, etc. Not considering the well-being of others in these acts would be morally wrong and negligent of impacts that affect the masses.

This chapter seeks to tie *An Inconvenient Truth*’s ethical message with the idea of philosopher John Stuart Mill’s view of utilitarianism, which depends on three main ideas: one, utility is the idea of acting dutifully (past a degree of mere decency) to others based on a greatest happiness principle (commonly referred to as “the greater good”); two, the greatest happiness principle is one where Mill says, “actions are right in proportion as they tend to promote happiness, wrong as they tend to produce the reverse of happiness”; and three, an act that results in an end, as rich as possible in enjoyments (to the most) and exempt from pain (to the most) is utilitarian. Linking Gore’s message with Mill’s connects the utility or ethical right of an act with a cost benefit calculation weighing pleasure versus pain of what has and what could be. In an essay entitled, “What Utilitarianism Is,” Mill says:

> What means are there of determining which is the acutest of pains, or the intensest of two pleasurable sensations, except the general suffrage of those who are familiar with both? …What is there to decide whether a particular pleasure is worth purchasing at the cost of a particular pain, except the feelings and judgment of the experienced?
The first anecdote in the film to be discussed in comparing the film’s messaging to Mill’s utilitarianism, is Gore’s college experience in the 1960s studying under Roger Ravelle, one of the first people to study carbon dioxide levels in the atmosphere. As student of his, Gore says he began to understand the greater ramifications of climate change for the future. The second anecdote to be discussed is Gore’s role as a father experiencing a newfound appreciation for life after nearly losing his son to an accident. The third anecdote to be discussed is Gore’s experience after losing his only sister to lung cancer, a loss he feels deeply after growing up in family that farmed tobacco. In each of these moments, Gore says his realization that his actions can impact the well being others, just as viewers might connect with climate change. He is no longer pigeon holed as a politician, a climate change expert or a holier-than-thou figure.

As discussed in chapter 2, before and after An Inconvenient Truth’s movie U.S. theater release in June 2006 in the U.S., several events allowed Americans to pause and see climate change with new eyes rather than debating the scientific uncertainty or political polarity behind it. For instance on the eve of the film’s release there are at least five events that helped to enable this pause: the aftermath of Hurricane Katrina in August 2005; the U.S.’s increasing involvement in the War on Terror in Afghanistan and Iraq and dwindling public support for the war; President George W. Bush, Jr.’s low public approval ratings; Gore’s rising image as a scientifically credible and popular figure and the stable economy, whereas in times of economic uncertainty climate change would compete with financial worries. These events and the connections that Americans were making for themselves about changing weather patterns and started to broaden the dialogue for Americans to consider climate change on a moral level unlike before.

In the first five minutes of the film Gore says climate change can no longer be stalled by the skepticism or partisanship that had long crippled it. He says, “There are good people, who are
in politics in both parties, who hold this at an arm’s length because if they acknowledge it and recognize it, then the moral imperative to make big changes is inescapable.”

In her master’s thesis, Jennifer Doak of Georgetown University credited *An Inconvenient Truth* for reigniting the environmental movement in the U.S. and catching the attention of the American public unlike any other person or work had yet to do. She credited the film and the public’s response to it for later appealing to lawmakers with renewed vigor to consider the effects of U.S. current consumption habits unlike *ever* before. Doak wrote:

*An Inconvenient Truth* succeeded in generating real concern about the environment where previous works failed. Hundreds of works have been published on the dangers of global warming in the interim between *Silent Spring* and *An Inconvenient Truth*, but even those related directly to environmental disasters failed to capture the public attention. Like other momentous works in nonfiction, such as *The Jungle, Silent Spring* and others, *An Inconvenient Truth* has created change in the mindset of an entire generation.

**The Makings of a Moral Message**

After losing the 2004 presidential election, Gore stepped out of the political spotlight where he spent the first thirty years of his career, and went back to his hometown of Nashville, Tennessee and decided to return to the slideshow on climate change that he had been presenting and revising for most of his career. The idea of turning the slideshow into a documentary was conceived in early 2005 after environmental activist Laurie David, who became the film’s producer, and Lawrence Bender saw the slide show in New York City and were so impressed that they suggested Davis Guggenheim, who became the film’s director, see it. In an interview with the online publication *World Changing*, he said:

…I’m not an environmentalist, but I had this profound experience where for the first time someone had laid out the whole thing, and explained it to me, connected the dots…I left after an hour and a half later thinking that global warming is the most important issue, and if I do one thing in my life it’s to help more people see Al Gore do this. I had no idea how you’d make a film out of it, but I wanted to try.
Guggenheim said he and Burns did not think about other ecological films and instead they sought to repackage what began thirty years earlier as the crusade of a newly elected congressman in the 1970s into 90 minutes of the important scientific and photographic evidence of climate change with a compelling personal narrative. The film’s message was not solely about the facts about global warming, but arguably about giving people an emotionally gripping experience to become convinced to wake up and fix global warming. Using evidence from the world’s leading scientists, isotopes measuring increasing amounts of carbon in the atmosphere and photos of retreating glaciers, *An Inconvenient Truth* makes the case that global warming is real, potentially catastrophic, and caused by humans burning of fossil fuels. In the same interview with World Changing, Guggenheim said:

If you want to really learn about global warming, and…the science of it, there are…better ways…but [the film] is a way to really experience the full profound time with Gore. And I thought, if we get people that, we get them hooked, and they can take the rest of the journey on their own.⁷

In the film Gore is depicted as someone that came to see climate change based on a duty to respect the happiness (not just the immediate bodily pleasures, but also safety, permanence, economical, mental and natural pleasures, too) of those around him. And more importantly he is someone still learning the facts and seeking to be morally decent. In the same interview with *World Changing*, Guggenheim said, unlike a tangible issue such as homelessness, the film sought to convey this ethical duty which can be abstract.

… the problem with climate change, I think…why people have such a hard time connecting with it…It’s very hard to touch and to see and to know how your life fits into it, because it’s so huge and broad…So, that’s a challenge, and my instinct was that if I could tell Al’s story in the movie, that perhaps, if we learned about him and learned how he became so invested, then maybe we would too.⁸

Guggenheim worried about the success of the film when the Bush administration tried to ignore the climate change issue, including deciding to turn back on a campaign promise by not
ratifying the Kyoto Protocol Treaty. Even when Kyoto came into enforcement all around the world in 2005, climate change was not a top priority for the White House; however by August 2005 Hurricane Katrina caused havoc on the Gulf Coast of the U.S. and brought to light how climate change was even causing tropical storms to increase in severity, something the public and the president could no longer ignore. Environmentalists from all over the world have hailed Gore’s efforts and the film. German Chancellor Angela Merkel, for example, said, “Gore has contributed like no one else in waking up the conscience of the world to fight climate change.”

**A Necessary Gear Shift**

To begin analyzing the utilitarian tone of *An Inconvenient Truth*, it is helpful to reflect on the film’s opening scene which shows an idyllic natural scene, where trees bend along a riverbank and slow moving water glitters as sunlight passes over its surface; the stroke of a single piano key plays as birds chirp and Gore’s voice contemplates the setting. He says:

> You look at that river gently flowing by. You notice the leaves rustling with the wind. You hear the birds; you hear the tree frogs. In the distance you hear a cow. You feel the grass. The mud gives a little bit on the river bank. It’s quiet; it’s peaceful. And all of a sudden, it’s a gear shift inside you. And it’s like taking a deep breath (Gore does so inhaling and exhaling affectedly) and going, ‘Oh yeah, I forgot about this.’

The nostalgia in Gore’s voice sets a tone of contemplation for Gore and viewers in that scene and others —did we mistakenly forget the natural world? Or did the natural world encourage us to forget about it? This thought asks viewers to think about a life in the twenty first century as we know it, where capitalism, development, industrialization, technology and progress often push people away from nature and pull us deeper indoors—into our cars, our homes, our deskbound jobs and onto our electronic devices.
A few minutes after the riverbank scene, Gore revisits that thought as he stands before a graph, pictured in Figure 5, with a historical record of the world’s temperatures and carbon dioxide (CO2) levels over the last two thousand years. He then mounts a crane that moves upward with him on it stopping at the highest point on the graph, an extraordinarily high prediction for carbon emissions over the next hundred years. As the crane lifts him to that point, dramatically higher than any other time in the past, he jokes (and wins a laugh from an audience on screen), “The so-called skeptics, say, ‘So, what?’”


He then paces across the stage and connects the science with the obligation. “Ultimately this is not really a political issue so much as a moral issue. If we allow that [pointing to the graph’s apex] to happen, it is deeply unethical.”

The pace, frequency and banal nature of many human behaviors today can disconnect us from the environmental impacts of our actions on people, places and creatures. The goods, services and resources of nature (i.e. agriculture, freshwater, seafood, livestock, pharmaceuticals,
etc.) are bought, sold, shipped and consumed across continents, it is easy to overlook how nature has become a commodity—an infinite resource and a secondary consideration—leaving little time to contemplate the ethics of our impact on it, many of which are contributing to climate change.

While the efficiencies, productivity, fast and global exchange of today’s modern world have their benefits; they also encourage a neglect for the impact and stress those efficiencies, connections and technologies place on the planet. A growing appetite, especially in the U.S., for fossil fuels, like coal and oil, and the products and efficiencies made possible by them also can disconnect individuals and institutions from the services, pleasures, creatures, places and necessary resources, like water, that are a part of the natural world and are directly and often negatively impacted by our reliance on fossil fuels. The excessive consuming and burning of fossil fuels is increasing the amount of carbon in the atmosphere and driving global temperatures to rise and the climate to change. In fact, today, the U.S. has one of the highest levels of consumption per person compared to the rest of the world and is a significant contributor to what is causing global warming.

Like the questions posed by Gore on our treatment of the planet, the book Environmental Ethics: Approaches and Issues explains that humanity’s massive impact on the environment in the last century and a half is causing serious thought about the fragility of the planet. The book says:

"Until recently, nature was believed to be too large and too permanent to be vulnerable. Now, at last, the science of ecology has shown us that this is not so. We now know that nature itself is imperiled by deliberate human action, and, reciprocally, that human beings are affected by the way they deal with nature. So now we see that our dealings with nature are matters of moral responsibility..."\(^{13}\)

While it is difficult to slow the pace of demand, Gore’s reflection on the riverbank teases out a necessary fact about how our jobs and routines of today that create may be
compartmentalizing our daily habits--increasing demand for consumer goods, vehicles, buildings, etc. which primarily rely on fossil fuels and its laundry list of impacts--and what they mean for a warming planet—decreased freshwater supplies, more severe natural disasters, changing fish stocks, lost plant and animal populations--have detached us from seeing those ideas as a fundamental disregard for the well being of others and the planet.

**Ethics as a Moral Compass**

Ethics are critical to discussing climate change and Gore’s impact on the issue because in large part, they are the critical study of personal and collective responsibility toward persons, social institutions, human communities and natural ecosystems. Ultimately ethics are a code of values that lead to choices and actions that determine purpose and direction in our lives. A compelling notion of ethics, which is critical to this thesis, is that they are flexible. As life happens, our moral perspectives can evolve based on our environments, our families, our friend sets, our religious beliefs, our travels, our public and personal events. Therefore a message of a film like *An Inconvenient Truth* has the potential to shift the moral compass of individuals and institutions.

Environmental ethics are very new in comparison to other philosophical disciplines. While many Americans are familiar with the philosophies and the popular urgings of early philosophers like John Muir, Aldo Leopold and scientist Rachel Carson, this chapter focuses on the climate change discussion in *An Inconvenient Truth* where Gore talks about climate change as rooted in utilitarianism, a philosophy of maximizing the greatest happiness and minimizing harm for the masses. Similar to the ethical questions of abortion or euthanasia, climate change provokes questions of accountability and responsibility. Gore has been trying to connect these dots for most of his life and *An Inconvenient Truth* encourages viewers to do the same. If we understand how
our everyday acts affect the well-being of the people and ecosystems around us, we begin to see climate change as a utilitarian issue.

The three anecdotes from Gore’s life in the film—first as a college student, second as a father, and third as a brother—shed light on climate change as a collective responsibility tied to the greatest good of the planet and the people, plants, animals and ecosystems upon it. The ups and downs of his life portray how an abstract issue like climate change can connect to something bigger than our insular worlds (in our backyards, our neighborhoods, our countries).

Utilitarianism is not a philosophy specific to the environment, but it is a general ethic that can be applied to Gore’s argument around the ethics of climate change.

To appreciate the film’s rationale, one must believe that our decisions are linked to what we as individuals, cultures, societies, governments and institutions value today and for the future. Our ethics are a core part of who we are and can determine what, who and to what extent we see as right and wrong and how we do and should act in the world. Those viewpoints may influence the discussions we have, the ideas we consider, the jobs we pursue, the goods we purchase, the activities we engage in, the cars we drive and those that we do not consider, pursue, purchase, etc.

**Climate Change: A Moral Imperative of Utilitarianism**

Jeremy Bentham, the founder of utilitarianism, and one of Mill’s greatest inspirations believed that the moral worth (or utility) of an action is determined by its outcome. Therefore when calculating the utility of an act everybody (involved in an act) should count equally as one and nobody for more than one. To act with utility then, one needs to treat all people and creatures as having intrinsic value, except when some recognized social expediency requires the reverse.”

To act as a utilitarian, therefore, a person should do what will produce the greatest happiness for the greatest number of people. Therefore distinguishing between morality and simple
convenience is part of deciding on the duty of an act. To decide on the utility of an act, like the actions known to contribute to increasing or reducing climate change, one must ask oneself if others benefit or lose because of how I behave?

Mill’s utilitarianism, or greatest happiness principle, believes that humanity’s intrinsic purpose in life is to be happy and because of this he says utilitarians are rational altruists, who should ensure the best possible well-being of the most. By “happiness,” Mill’s utilitarianism refers to intended pleasure as the absence of pain; and “unhappiness” refers to pain and lack of pleasure. This thinking advocates a welfare state of sorts where the greatest happiness of the most should outweigh the pain inflicted on the least—exactly how Gore wants viewers to think about climate change.

In this interpretation of utilitarianism, Mill says that regardless of religion, everyone should have a sense of duty on certain issues. For example that sense of duty, about how best to improve the well-being of others, can be connected to why one should not lie as lying is wrong, because it may contribute to a larger lie and a culture of dishonesty. For Mill, individual “acts are not right or wrong in themselves but are only right or wrong insofar as, compared to other available options, as they…maximize aggregate utility or minimize aggregate disutility.” To decide on the utility of an act, one must ask oneself if others benefit or lose because of how I behave?

For Mill a sense of duty in one’s actions must extend past a degree of mere decency to others. We must be bigger than “I get mine; you get yours; every man for himself.” Mill says duty is something one could expect to collect because it is owed, like a debt “…that a person may rightfully be compelled to fulfill a thing which may be exacted …from a person, as one exacts a debt…” Additionally, happiness is not a means to another end but is pursued for its own sake.
To ensure the greatest happiness of the most, a utilitarian will sacrifice individual pleasure today for the happiness or the greater good of tomorrow. Therefore the right course of action for a utilitarian is the one that maximizes the overall happiness for the most people. Using others to maximize your own pleasure while disregarding the pain you inflict on them--crimes against flesh, crimes against nature--violates utilitarianism.

Mill says over time we adopt utility based rules, or maxims, like not lying, because they help to maximize utility, or happiness, in the world. Though they may appear to be absolute and inviolable, Mill says they are established in the service of utility. Such maxims or principles should be able to be made a universal law. According to Mill in making a decision about an act, a utilitarian determines if it becomes a universal maxim or law. If it cannot be made maxim or law, it is not necessarily wrong and immoral. To illustrate this he says, “We do not call anything wrong, unless we mean to imply that a person ought to be punished in some way or other for doing it; if not by law, by the opinion of his fellow-creatures; if not by opinion, by the reproaches of his own conscience.” For acts that contribute to the problems and solutions of climate change, then, one must consider more than oneself.

On the contrary, there are things that we wish that people would do, and we like or admire them for doing them, perhaps dislike or despise them for not doing, but admit that they are not bound by duty to do them because the acts are not universalizeable. Such acts are not moral obligations because we do not think that they are proper objects for punishment.

\textit{An Inconvenient Truth’s Utilitarian Logic}

\textit{An Inconvenient Truth} discusses climate change in a Millsian utilitarian perspective. Both Mill and Gore value personal liberty, nature, property, and the well being of living and future populations. In terms of climate change, Gore sees actions that add to global warming as harmful
because they take away from personal liberty, nature, property and the well being of future
generations. He cannot accept the idea of individuals or institutions ignoring the consequences of
our actions or giving unequal consideration to people, institutions, places, etc. Theoretically in
assessing the utility of an act, one might consider greater societal prosperity over personal
prosperity. And in acts that can contribute to climate change, one might think about resources
conserved or wasted, incomes gained or lost, lives gained or lost, drought, water scarcity, food
insecurity, species loss, glaciers loss and rising sea levels or the critical intellectual, physical,
academic and other intrinsic happiness (or harms) connected to climate change.

Because climate change is complicated and, at times, abstract in terms of our daily
decisions, it is difficult to determine the utility in every act related that either contributes to the
problem or the solution. For instance, deciding to take a bus to the grocery store rather than
driving a car or riding a bicycle is a practical utilitarian act related to climate change. In
considering the moral rightness of the act, someone would consider not just one’s own happiness
(or convenience) but that of the act’s impact on the planet, the plant and animal populations (and
those of the future), the ecosystems, and other intrinsic services of the natural world that go into
carbon heavy or carbon light considerations in our lives.

This thesis supports the idea that Mill would favor Gore’s thinking where acts that cause
greater disutility than utility are unethical. For example, just as Mill might, Gore argues that
reducing fossil fuel consumption today which will lessen the contributions to climate change
(disutility) for long term utility (happiness) and will minimize harm (to seven billion other
humans, animal and plant populations, along with financial and intrinsic losses, like that of
human potential for innovation, income, discovery and happiness to current and future
generations and the overall well being of the planet.
In considering competing rights which are important to Mill’s utilitarianism, we violate a duty to current and future generations. An Inconvenient Truth’s message is in sync, too, with Mills’s idea of being dutiful past a degree of basic decency.

In the film, Gore suggests that viewers should consider the utility (i.e. greatest good) of their actions by considering a number of factors that they previously may not have, including health and well being of the living people, plants and animals, today and tomorrow, access to oceans, mountains and rivers that provide water, food, fish, oxygen, and leisure. He relates this to his college experience, a near tragedy with his son and the death of his only sister. In understanding how and what we affect, we might understand that global warming is caused by and a responsibility and consequence in all our lives.

At one point, in the film, Gore says the ways in which each of us sees, thinks, feels, consumes, plays, works, and learns in the world today is reflective of the value we place on people, species and places we do not know. He says:

We need to decide how we react when we hear warnings from the leading scientists…This issue is the same for China as it is for the US…Separating the truth from the fiction and the accurate connections from the misunderstandings; but when the warnings are accurate and based on the sound science, we as human beings have to make sure the warnings are heard and responded to.17

Like the film’s opening scene on the riverbank, Gore suggests a gear shift to see climate change as a personal and a collective responsibility. In Mill’s terms, if responding to climate change creates a moral imperative [maxim], it must carry with it absolute necessity that reversing the planet’s warming must be good and contribute to the greatest happiness and avoiding harm for current and future populations.

To think about climate change as a utilitarian based on the film’s urging, requires that individuals or institutions consider their actions with respect to the happiness or harm it may
cause to the other 7 billion humans on the planet, the millions of species and ecosystems on the planet and those yet to come. In doing so, this acknowledges a duty or respect of others. Gore uses this rationale in the film when standing on a stage and talks about at picture of a scientist looking at a set of scales that hold the globe on one side and a stack of gold bars on the other. The scene is a metaphor for the climate change conversation and how to consider individual acts as ethical or not.

We have here a scale that balances two different things. On one side, we have gold bars! Mmmmmm, don't they look good? I'd just like to have some of those gold bars. Mmmmm. On the other side of the scales... um...THE ENTIRE PLANET! Hmmm... I think this is a false choice for two reasons: number one, if we don't *have* a planet...The other reason is that, if we do the "right thing, then we're going to create a lot of wealth, and we're gonna create a lot of jobs, because doing the right thing moves us forward. 18

This logic, like Mill’s, assumes that I can will myself or others to lose their happiness if ignoring how individual acts contribute to or disregard climate change. To do otherwise according to the film (and the world’s leading scientists confirmed) would be anti-utilitarian. This ability to reason how to live dutifully may be the most important thing we possess as humans. It allows us to acknowledge and respect the people and places in our immediate surroundings and those in far off corners. Such values can allow us to change our routines and habits—transportation, eating, shopping, travel, etc.—which can reduce the amount of carbon in the atmosphere, and the rate of global warming, in turn lessening the devastation of climate change.

Near the end of the film, Gore asks the audience a broad and rhetorical consideration of actions that are not utilitarian. “Future generations may on occasion ask ‘What were our parents thinking. Why didn’t they wake up and do something?’ We have to hear that question from them now.” 19
Three Personal Turning Points for Gore

At the beginning of the film, Gore’s contemplation on the riverbank calls for a gear shift in terms of how we think about these things; what may keep us too busy, distracted, complacent or selfish to think about it in those terms. Now it is helpful to look at three of those anecdotes which were turning points for Gore and serve as analogies for the utility of seeing climate change as a moral issue: as college student learning about climate change, as a father nearly losing his son to a tragedy and as a brother who lost his only sister, to convey the ethical obligation of climate change. These examples portray how the abstractness of an issue like climate change is actually bound to something bigger than our insular worlds (our backyards, our families, our neighborhoods, our countries).

A Lesson from College

The first anecdote Gore shares is his time as a young college student studying at Harvard under Ravelle, a professor mentioned earlier, one of the first people to measure carbon dioxide in the atmosphere. In the film, Gore says, “It was a wonderful time for me, because like a lot of young people I came into contact with…ideas that I’d never considered in my wildest dreams before.” One of those ideas was global warming. The results of Ravelle’s measurements he says ignited a spark in Gore that became the seed for An Inconvenient Truth:

...[Ravelle] was startled and made it clear to our class what he felt was the significance of it, and I just soaked it up like a sponge. He drew the connections between the larger changes in our civilization and this pattern that was now visible in the atmosphere of the entire planet and then he projected it and where this was headed; unless we made some adjustments and it was just as clear as day.

It has been written that Gore actually struggled with science courses however learning about the moral implications of climate change motivated him to overcome the intimidation of the science. In the film, Gore says the ethical connections were clear from the start, “A window was
opened through which the future was clearly visible. It’s as if he said, ‘That’s the future within
[which] you’re going to live your life.’”

A few years later Gore became a Congressman in 1976 at the age of 28, and was later
elected to the Senate in 1984. He took Ravelle’s lessons and his passion to Capitol Hill,
organizing the first hearings on global warming to emphasize the need for legislation to reverse it;
however, as he mentions in the film Congress and the Senate did not react to the data the same
way he had. He said:

I actually thought and believed that the story would be compelling enough to cause a real
sea change in the way Congress reacted to that issue. I thought they would be startled,
too. And they weren’t.

Gore persevered in trying to persuade politicians, business people, and constituents of the
moral importance of the causes and solutions of increasing temperatures. A sentiment Mill’s book
Autobiography, once wrote, “those only are happy…who have their minds fixed on some object
other than their own happiness; on the happiness of others, on the improvement of mankind, even
on some art or pursuit, followed not as a means, but as itself an ideal end.” The sentiment fits
with the perspective on global warming cultivated in Gore early in his education.

A Lesson in Fatherhood

The second anecdote from the film is relevant to this discussion with Gore’s only son in
that caused a change of heart to pursue his life with more purpose. In the film he recounts the
event and his reaction:

My son pulled loose from my hand and chased his friend across the street. He was six
years old. The machine was breathing for him. We were possibly going to lose him. He
finally took a breath….it just turned my whole world upside down and shook it until
everything fell out.
In facing the possibility of losing what was most precious to him - his son - he says he
 gained ability that maybe he did not have before it—a deeper understanding of the frailty of life,
 which like a safe and stable climate could slip away if we were are not careful. “My way of being
 in the world; it just changed everything—how should I spend my time on this Earth?” In the
 very next breath, he says, “I really dug in trying to learn about it [climate change] much more
 deeply…went to Antarctica, the South Pole, the North Pole, where scientists could help me
 understand parts of the issue I didn’t really understand in depth…”

This story connects the common human experience of joyous or tragic personal event s
 forcing one to consider something greater than ourselves—a utilitarian thought. When talking the
 accident and being in the hospital hoping his son would live, he says, “…when I felt it, I felt that
 we could really lose it.” Gore relates that experience with the opening scene of the film on the
 river bank. Gore’s ties the two scenes saying, “… That what we take for granted might not be
 here for our children.” Gore concludes the story with an optimistic thought for how his own
 story might spark a push in a more ethical direction for viewers. He says, “It takes a sudden jolt
 sometimes before we become aware of the danger. We’re capable of just sitting there and not
 reacting.”

A Lesson in Loss

The third anecdote in the film where Gore connects climate change with his own life as a
 brother who lost his only sister to lung cancer. As a child, Gore spent the school year in
 Washington D.C. where his father was a U.S. Senator and summers at their family’s tobacco farm
 in Tennessee. In the film, he says it was on the farm that he developed a fondness and deep
 connection to the environment. “I don’t remember a time when I was kid, when summer didn’t
 mean working with tobacco. I loved it….”
Even with the Surgeon General’s (the nation’s leading spokesperson on matters of public health) report the evidence was laid out with the connection between smoking cigarettes and lung cancer in 1964, he says their family kept growing tobacco. When Gore’s only sister Nancy who he calls, “…my protector and my friend at the same time,” died of lung cancer, the fondness and the moral basis of the tobacco farm changed. After Nancy died, the Gores stopped growing tobacco.

The story makes a case for the utilitarian idea of weighing happiness versus harm idea in our actions. No longer could the profits and nostalgia of the tobacco farming, outweigh the harm it causes—growing and selling a crop that which ultimately kills. In the film, Gore says the lesson of contributing to a loss that could have been prevented (similar to the impacts of climate change) was a tough pill to swallow.

The idea that we had been part of that economic pattern that produced the cigarettes that produced the cancer …it was so painful on so many levels.” “My father had grown tobacco all his life and he stopped. Whatever explanation had seemed to make sense in the past just didn’t cut it anymore.

Whatever the excuses were before, the excuses no longer cut it. The same is the intent of the film’s message and the plea to take charge of climate change. He says, “It’s just human nature to connect the dots. But I also know that there can be a day of reckoning when you wish you had connected the dots more quickly.”

An Aside: American Independence (or Selfishness)

In addition to the science and personal narrative in the film, it is important to touch upon a cultural obstacle relevant with U.S. audiences both when the film was released and now; something often pinpointed by those outside the U.S. as a reason that climate change has not become a priority in the same way that it has in other countries. Americans are encouraged to
dream impossible dreams and to follow the belief that one can be anything they set their mind to. In many ways this is a cultural value to go after our own happiness, our personal well-being, rather than always prioritizing the greater good, can undermine utilitarianism.

A collective mindset therefore that is necessary for a utilitarian perspective on climate change is challenged with the independent thinking of Americans and our economy of free market capitalism. In fact, even our tax structure, allows Americans more dollars in their pockets as compared to many European neighbors that see greater taxes as greater contributions to national well being for all.

America’s First Amendment from the constitution guarantees the freedoms of speech, press, religion, petition and assembly. While our capitalist economy allow for immense personal voice, independence and innovation, they can neglect personal responsibility and complicate the greater good to fellow human beings and the planet.

These ideals, freedoms and constructs allow for immense personal voice, independence and innovation and the ability to grow and prosper as Americans that can be self-made but can also create our own morality and our own truth that neglect personal responsibility and complicate the greater good to fellow human beings and the planet. This is further complicated by the U.S.’s geographic isolation from many other countries, a national highway system that connects suburbs and yet keeps us somewhat separated from one another.

In fact urban and rural constructs and cultural norms are important and can encourage and enable Americans to remain independent and self interested. For instance, in the early part of the twentieth century, Americans invented the automobile, a vehicle to get individuals where and when he or she wanted to go; we later built a vast highway system in the 1950s that supported suburbs and reinforced where suburbanization; we later fixed the prices of our gasoline which has
never become as expensive as our European neighbors who because of high prices drive less and rely more on public transportation; Americans also invented fast food and 24 hour convenience stores; we privatized healthcare so individuals or employers were individually responsible to purchase health insurance rather than nationalizing it. While the American characteristics of self determination and capitalism encourage innovation and efficiency at times they also detach individuals from the greater good mindset.

In fact, A *Vanity Fair* article from 2011, noted what may be, critical to understanding how the potential of the message could transform American minds and actions with respect to climate change, unlike was previously possible.

Alexis de Tocqueville once described what he saw as a chief part of the peculiar genius of American society—something he called “self-interest properly understood.” The last two words were the key. Everyone possesses self-interest in a narrow sense: I want what’s good for me right now! Self-interest “properly understood” is different. It means appreciating that paying attention to everyone else’s self-interest—in other words, the common welfare—is in fact a precondition for one’s own ultimate well-being.³⁶

The U.S., however, is not entirely unlike some of our economic counterparts, that are fortunate in political freedoms and natural resources, and yet in spite of those, often we have taken them for granted and disregarded the enormity and responsibility of climate change in the name of personal want.

Today it is estimated that if everyone lived like Americans, we would need five planets to fulfill current consumption,³⁷ according to a 2009 article in *The Independent*, a UK newspaper. Based on the current rate of consumption and a lack of national climate legislation, the American ideals of personal will and freedom have detached us from understanding our part in the problem of climate change and the obligation to solve it. We have tricked ourselves into thinking it is our prerogative, our right, to consume without regard for the future. *An Inconvenient Truth* called attention to these weaknesses in an attempt to reel in them and their impacts.
When a new voice, like that of the film, suggests a new way of thinking about acceptable standards and actions, we may not respond immediately, but there is a good chance we will soon. *An Inconvenient Truth* shows that investing in happiness over harm according to our ethical conscience still can bring the best (societal) return on investment. An article in the journal *Geographical Research* also says, “…You also need to understand what a changing climate means for disease migration and public health, what it means for poor populations in developing countries, what it means for water scarcity or demographic and urbanization trends.”38 Once reaching such an understanding it may be easier to see that greatest return on investment is the greatest well-being of the most.

Personally, I believe the utilitarian is a bigger part of most Americans than the self-interested part. Like with the film, Americans just need reminders, every now and again, to notice the world outside our own. Along the same vein as Gore, Mill says utilitarian actions boil down to each of us individually as the acts are “…not for the benefit of the world, but for that of individuals, of which the good of the world is made up…the multiplication of happiness is, according to the utilitarian ethics, the object of virtue.”39 For instance, reaching out to people one by one after seeing the film to discuss climate change and different perceptions and needs related to it is a utilitarian act.

**Conclusion**

This chapter intended to show that *An Inconvenient Truth* uses a persuasive moral argument that holds up against critics, even if its calculations are not all exact. The moral life is ambiguous and that is no different with how to view and respond to the challenges of climate change. While some critics said the message was too provincial, I agree with academic Peter Christof who said it was well-suited for American audiences.
It carefully inserts the personalised narrative of Gore's life and family, to break up and ‘humanize’ the film's reflections about the global impacts of climate change and keep the audience emotionally engaged. Its overt political messages are muted, and its moral content amplified – in keeping both with Gore's personal values but also with the need to present a message that deflects otherwise inevitable criticism of political partisanship which would be used by Gore's opponents to blunt its appeal in the US.  

In 2007, the year after the film’s U.S. release, an ABC News/Washington Post/Stanford University poll found evidence of Americans shifting their opinions of climate change. That year for the first time in history a majority (52 percent) of Americans said global warming was personally important to them. The same poll found that in the year after An Inconvenient Truth debuted, the number of Americans seeing climate change as personally important doubled from ten years before and a majority of Americans said they were willing to make a lifestyle change to help the environment.

Even though other works calling for change came before, including Earth in the Balance, a book written in 1992 by Gore himself, it was An Inconvenient Truth that helped to bring the environmental movement back in a major way and specifically climate change into the public consciousness. The climate change dialogue evolved from scientific skepticism or political partisanship, instead to the ethical obligations of individuals in a global community. As a result, climate change was not just about under nourished children in drought ridden Africa, rising sea levels in the Pacific Ocean or polar bears in the Arctic but also about the people and places closest to us.

Gore’s anecdotes give reason to tie personal experiences to the larger connections of climate change, i.e. discussing the potential for the world’s glaciers to melt, the possibility of the Colorado River to dry up, or the predictions for Manhattan to be underwater due to sea level rise, because of one’s daily routine. In discussing his philosophy of utilitarianism, Mill once wrote, “The only freedom which deserves the name is that of pursuing our own good in our own way, so
long as we do not attempt to deprive others of theirs, or impede their efforts to obtain it.” The film argued against such dangers of depriving others of some good in the name of our own good.

A mass appeal to see climate change as a moral obligation would have to come in terms of utilitarianism—an appeal to our rational self-interest. In fact, in the year of the film’s release, the website World Changers said the movie would change the debate in the U.S. on climate change and that seeing the film was itself an American responsibility. “If you are an American and read this site, it is your duty to go see this film…”

By the time the film was released most experts and the Intergovernmental Panel on Climate Change (IPCC), comprised of the world’s leading scientists, agreed that climate change was happening and was caused by humans and included a list of potential negative consequences. This conversation started a domino effect where personal responsibility became a new focus for discussing solutions to climate change. Those who have the privilege to know what Gore advocates then have the duty to act.

Even with the convincing science, compelling testimonials and academic support for the message, still many Americans maintain a sort of faith that science and technology will fix everything, a tendency to think in terms of the next fifteen minutes, maybe the next month, and maybe the next year. The fast pace of the modern era that is forever online and instantly satisfied have shrunk time frames tremendously and compete with our abilities to resist what may be short-term happiness instead of long-term happiness. These challenges for our self-interest continually being calculated in terms of the next fifteen minutes (or seconds) rather than what kind of life or planet we expect to pass on to the following generations. Our wants, curiosities and needs are often fulfilled almost instantly because of globalization and technology which allow that. This has left many people thinking experts will solve the problem has also left ordinary people feeling free
to do pretty much what they want and that somehow there will be a quick fix by which we will be
able to get plenty of energy and still live on a reasonably decent planet. Many have been lead to
believe their individual contribution or restraint will not make a difference. An Inconvenient Truth
did and still persuades us otherwise.

Though this chapter and my personal opinion focus on the originality and success of the
film’s argument, I also want to acknowledge that there are critics on another side of the fence.
They argue that the consequences of global warming are exaggerated by the film and question if
there is a direct correlation between climate change and human activity.

Whether the film has predicted the outcomes perfectly, may not be as important as
knowing that that human actions can improve what we do today and that we owe it to the future
to do what is right for the common good down the line. Unless most everyone agrees to cut down
carbon emissions we won’t get too far. How much fruit the film’s influence will continue to bear,
and how quickly, is still hard to determine. But it is clear, "whether scientists like it or not, An
Inconvenient Truth has had a much greater impact on public opinion and public awareness of
global climate change than any scientific paper or report," according to Steven Quiring,
climatologist from Texas A&M University. Chapter 4 will discuss certain changes in the U.S.,
which for the purpose of this thesis are enough to show an ethical gear shift that occurred after An
Inconvenient Truth.

In the film, Gore’s final appeal to viewers’ moral conscience shows him standing in front
of a graph and talking about the current carbon emissions in the atmosphere (as of 2006) as
displayed on a pie chart with chunks to consider cutting back on: electricity end-use efficiency,
passenger vehicle efficiency, transport efficiency, renewable technology, carbon capture
sequestration. He says:
We have the ability to do this. Each one of us is a cause of global warming, but each of us can make choices to change that with the things we buy, with the electricity we use, the cars we drive. We can make choices to bring our individual carbon emissions to zero. The solutions are in our hands. We just have to have the determination to make them happen.\textsuperscript{45}

Then a list of the world’s countries who have signed the Kyoto Protocol to reduce greenhouse gas emission appears behind Gore and for one last time Gore encourages Americans one last time to understand climate change in terms of a duty to one another. At the time, Australia had not signed onto the Kyoto commitments. That has now changed.

Are we going to be left behind as the rest of the world moves forward? …There are only two advanced nations in the world that have not ratified Kyoto and we are one of them. The other is Australia….What about the rest of us? …..So now we have to use our political processes in our democracy and then decide to act together to solve those problems….I believe this is a moral issue. It is your time to seize this issue. It is our time to rise again to secure our future.\textsuperscript{46}
CHAPTER 4

WHERE HAVE WE COME? AND, WHERE ARE WE GOING?

The late environmental pioneer and Nobel Prize winner, Wangari Mathaii, once said, “Sometimes there comes a point of consciousness where it becomes unconscionable to not do anything.”¹ This thesis argues that such a moment happened in the United States with respect to climate change after the documentary *An Inconvenient Truth* debuted nationwide in June 2006 with a call to action, “If we ignore climate change, it is deeply unethical.”² The film is narrated by former vice president of the U.S., Al Gore, and uses scientific and photographic evidence by the world’s leading scientists of melting glaciers, changing landscapes, expert opinions, statistics and animations to address the causes, realities and urgencies of climate change.

The first three chapters discussed the history of the environmental movement in the U.S., the timing of the film’s U.S. release in relation to certain events and the ethical message of the film; this chapter looks at changes in American perceptions and actions in how Americans perceive and respond to climate change in political, media, academic, corporate and philanthropic circles. While research shows the change in concern is attributable to several factors, it also finds that the documentary was a game changer. After 2006, a large portion of Americans said they began thinking and acting differently about the issue and their relationship to it. While demographics, like age, education, income level, geography, political affiliation, still divide Americans in their willingness to change, there are incremental and significant changes that should not be overlooked.

In order to distinguish the shifts before and after the film, I will refer to the years before the June 2006 theater release of the film in the U.S. as the pre-*An Inconvenient Truth* era and the years after June 2006 as the post-*An Inconvenient Truth* era. The research to be discussed found
that America’s perceptions and behaviors of climate change in the pre-*An Inconvenient Truth* era largely reflect an attitude of denial, ignorance and political polarity, whereas perceptions and actions in the post-*An Inconvenient Truth* era reflect an attitude of awareness, compromise and motivation.

This chapter begins with a look at opinion polls to illustrate America’s climate change perceptions and then discusses actions in politics, the media, corporate, university and philanthropic fields in the pre and post-*An Inconvenient Truth* eras. Research, data and anecdotes from academic studies, think tanks, polling centers and other news sources help illustrate these actions. The data about public perceptions on climate change comes from a variety of sources, many which are cited in a May 2011 report entitled, “American Climate Attitudes,” by The Resource Innovation Group (TRIG), a nonprofit focused on sustainability and global climate change education. The TRIG report will be referenced along and the research it mentions in the Pew Research Center, Gallup, Stanford University’s Woods Institute for the Environment, George Mason University’s Center for Climate Change Communication, and the Yale Project on Climate Change Communication. The data on behaviors and actions comes from scholarly articles, corporate websites, and publications by think tank, documentary films and independent evaluations.

**Introduction**

Before showing studies of changes in American public opinion after *An Inconvenient Truth*, it is be helpful to review some the science and state of climate change as this is being written. According to the world’s leading scientists of the Intergovernmental Panel on Climate Change (IPCC), today the planet is well above the recommended safe level of 350 parts per million (ppm) CO2 and is rising by about 2 ppm every year.³ The climate was relatively stable
until about three hundred years ago when humans began cooking, turning on lights, driving automobiles, producing goods by burning coal, oil and other fossil fuels that were previously stored underground. We began changing the natural landscape by cutting down trees and tilling our farmland, which releases carbon dioxide and other greenhouse gas (GHG) emissions stored inside the trees and underground. Over time the burning of fossil fuels and the release of these GHG emissions from trees and land (GHG) started to rise and trap heat in the earth’s atmosphere causing the earth’s surface temperature to warm and the climate to change.

It is also important to initially revisit the themes of the previous three chapters to put this one into context back at the chapters that came before this. Chapter 1 discusses the first two hundred and fifty years of the unofficial environmental movement in the U.S., before An Inconvenient Truth, which over time planted and watered the seeds of Americans caring about the planet. Like other moments in the environmental movement, elevating climate change to a level of moral importance in recent years has involved steps forwards and backwards.

For instance as mentioned in chapter 1, in 1872 President Ulysses S. Grant signed legislation establishing Yellowstone as the U.S.’s first National Park, however in the same year, a mining law passed allowing for large-scale, destructive extraction on public lands. Similarly since the release of An Inconvenient Truth, compared to years prior, more Americans say they understand and are concerned with climate change. Yet, according to a November 2011 Department of Energy (DOE) study, “Global carbon emissions last year exceeded worst-case scenario predictions from just four years before.” And the rise was largely due to the three largest emitters, the U.S., India and China.

Chapter 2 discusses An Inconvenient Truth’s release in U.S. theaters in light of the aftermath of important events: the aftermath of Hurricane Katrina, a point of no-end-in-sight for
the War on Terrorism in Iraq and Afghanistan, an all-time low for President George W. Bush’s approval ratings, the increased academic credibility of Gore and a time of national economic stability. These events, along with some that followed—Gore and the Intergovernmental Panel on Climate Change (IPCC) winning the Nobel Prize—made way for climate change to be viewed as real and human caused.

Chapter 3 discusses *An Inconvenient Truth*’s call to action—the environmental burdens of climate change are a collective responsibility of all human beings. Prior to the film, climate change conversations in the U.S. largely debated the causes and scientific credibility behind it rather than the responsibility to fix it. In the film Gore says, “Future generations may on occasion ask, ‘What were our parents thinking? Why didn’t they wake up and do something?’ We have to hear that question from them now.”

This thesis compares the film’s message with philosopher John Stuart Mill’s theory of utilitarianism where ethical conduct is not concerned with one’s happiness, but that which concerns the happiness of all. In Mill’s seminal work of the nineteenth century, *On Liberty*, he wrote, “The only freedom which deserves…name is that of pursuing our own good in our own way, so long as we do not attempt to deprive others of theirs, or impede their efforts to obtain it.”

To put the first three chapters in context, I want to refer to Figure 6, below, which uses data from a March 2009 Gallup poll, Gross Domestic Product (GDP) growth from the World Bank website to show correlations between public perceptions, the state of the economy and the timely events between 1992 and 2012, like the September 11, 2001 terror attacks, Hurricane Katrina and George W. Bush’s declining approval ratings, which are mentioned in chapter 2. The graph does not tell the whole story of how America’s shifting perceptions and behaviors in recent years, but it does connect some of the dots. For example, after 2006 there was an uptick in
Americans with a great deal or fair amount of concern, as noted by the purple line; and similarly after 2009, when the economic recession began, GDP declined (red line), as did concern for climate change.


Some of the actions to be discussed in this chapter show that perceptions measured by opinion polls are not the best indicators of how people are thinking and behaving in the post-An Inconvenient Truth era. Instead they prove that political, academic, media, corporate and philanthropic changes are more robust indicators of change. For example, some polls show that concern for climate change decreased since the start of the recession in late 2008, due to the competing worries of unemployment, job security, etc.; however, at the same time, attempts for national climate legislation emerged, the presidential campaign of 2008 focused on the issue, the Mayors’ Climate Commitment was signed, media coverage of climate change increased, corporate partnerships for climate conscious actions skyrocketed, university climate action plans
and school curriculums on climate change grew and philanthropy for preventing, mitigating and adapting to climate change rose.

Americans living in the post-\textit{An Inconvenient Truth} era read, hear, watch and know more about climate change than ever before. There is unprecedented access to information about the current state of climate change, predictions about the impacts from different countries, for the future and rising societal pressure to find solutions to climate change. In fact according to a global study by the Norwegian University of Science and Technology’s Center for International Climate and Environment Research the bigger a country’s expenditures are, like the U.S., the bigger its carbon footprint is. Therefore poorer countries like Mozambique have a national average of per-capita footprints of 1 ton of CO2 equivalents per year, whereas wealthier industrialized countries like the U.S. have national average per-capita footprints of roughly 30 tons per year.\footnote{In addition to the rising levels of GHG emissions and their impact on the planet’s temperatures in the post-\textit{An Inconvenient Truth} era, we know that increasing human populations and their increasing demand for goods and services (food, transportation, travel, electricity, infrastructure and development) that predominately rely on fossil fuels, are causing GHG emissions to rise at unsustainable levels adding to the occurring and predicted impacts of climate change, including rising ocean temperatures, melting ice sheets, more severe natural disasters and tipping points for plant and animal populations. We even know that many of the impacts of climate change are tough or impossible to reverse.}

Steve Kaelble who wrote \textit{Environmental Commodities for Dummies} says the growing knowledge and attention to the urgency and responsibility of climate change led to dramatic growth in what Americans are doing to offset and decrease carbon heavy activity. In his book, he
writes, “Not coincidentally this growth happened because people have been talking a lot more about climate change and coming around to the realization that [their] human activity is a major source of the problem.”

At the same time even in this new era of climate change awareness and concern, many Americans are reticent to reconcile their understanding of the issue with their own lifestyles. Stewart Barr of Exeter University in the United Kingdom (UK) who studies climate change and behavior change and says there are still contradictions in how opinions translate to our lifestyles.

There is this middle class environmentalism where being green is part of the desired image… another…desired image is to fly off skiing twice a year. And the carbon savings…by not driving their kids to school will be obliterated by the pollution from their flights.

Barr found that only a small number of people match their eco-friendly opinions with all of their behaviors. He says, some “…people who believe they have the greenest lifestyles can be seen as some of the main culprits behind global warming.” According to his research, people who regularly recycle rubbish and save energy at home are also the most likely to take frequent long-haul flights abroad. Also those who took the longest and the most frequent flights were taken by those who were most aware of environmental issues, including the threats posed by climate change.

In the modern era of quick online information and fast answers many Americans still think experts will solve the problem and there will be a quick fix to get plenty of energy and still live on a reasonably decent planet. This Achilles Heel leads some to think their individual contribution or restraint will not make a difference. Richard Harris of National Public Radio (NPR) reported in 2011 that even with the numbers, the science, the data and the pictures of what is happening, there is still a failure to convey “… clear scientific definition of a point-of-no-return for the climate.”
Opinion Polls and America’s Changing Attitude

Opinion polls are one bellwether of what is on the minds of the general public at a specific moment in time. In this thesis, they are the first indication of change to be discussed in America’s climate change perceptions between the pre-An Inconvenient Truth era and the post-An Inconvenient Truth era. Before 2006, climate change was somewhat guarded from being recognized as a social problem because the existence and causes of global warming were still up for debate; whereas afterwards, the debate had ended and the world’s leading scientists agreed that climate change is happening and is largely caused by the burning of fossil fuels by human beings.

By the beginning of 2006, just before the release of An Inconvenient Truth, a Pew Research poll comparing the U.S. to other industrialized nations reported that fewer Americans expressed concern over global warming, than the citizens in Great Britain, Spain, France, Germany, Russia, Indonesia, Egypt, Jordan, Turkey, Pakistan, Nigeria, Japan, India and China. The poll found most Americans were not concerned with global warming--only 19 percent were a great deal concerned with global warming, 34 percent a fair amount concerned, and 47 percent a little/not at all concerned; however, just one month after the film’s nationwide release, Pew found the number of Americans believing global warming is the result of human activity increased from 41 percent to 50 percent.

Overall in the year and a half after the film release, June 2006 to December 2007, the polls reviewed for this thesis show an overall increase among Americans feeling a sense of personal concern and responsibility to do something about climate change. Stanford University’s Woods Institute found that the number of Americans who personally viewed climate change “very/extremely important” jumped from less than 30 percent in 1997 to over 50 percent in
2007. The same poll found the number of Americans identifying climate change as the world’s single biggest environmental problem doubled between in the year before and after the film’s release, from 16 percent in 2006, to 33 percent in 2007. And nearly three-quarters of the Americans polled in 2007, said they were also making efforts to reduce energy consumption in their homes.

A study by the Pew Research Center for the People & the Press entitled, “What Was--and Wasn't--On the Public's Mind,” confirmed that global warming became a much more visible issue in between the year before and after the film’s release as discussions shifted to solving climate change rather than debating the problem itself.

Even with the new awareness, the economic recession that began in late 2008 impacted the attention and money Americans could and were willing to give to the issue. Gallup found that after peaking in 2007 with over 40 percent of Americans personally worried about global warming, that number did decrease, with the onset of the recession and rising concern for job security and home foreclosures. A George Mason University study by the Center for Climate Change Communication looking at opinions between 2008 and 2010, also found that in addition to economic concerns during the recession, the presidential transition of George W. Bush to Barack Obama in January 2009, the ongoing wars in Iraq and Afghanistan, healthcare reform, and the proposed closing of Guantanamo Bay Prison, also overshadowed attention on climate change. Yale University and George Mason University found that by January 2010 only 50 percent of Americans said they were “somewhat” or “very worried” about global warming; a 13-point drop from 63 percent in 2008. The study found that when Obama moved into the White House and Democrats took control of Congress, many Americans probably wrongly assumed that actions to combat climate change were happening due to his campaign promises of emissions
cuts, exacting a price for emissions permits, promoting non-polluting energy sources and cutting wasted energy.\textsuperscript{19}

Findings of decreased attention during the recession do not however contradict this thesis that \textit{An Inconvenient Truth} was a tipping point. Instead even after a recent boost, they illustrate that other forces still challenge climate change in the public sphere for the rightful attention it deserves. For example, by 2008, even as the economic recession began, Pew found that among the American public there is broad belief that global warming is a reality, a serious threat and that a supermajority want the U.S. to reduce its emissions that cause global warming.\textsuperscript{20}

In Stanford University and ABC News conducted a study that found even with the weight of the recession, Americans still believe climate change is a fundamental responsibility of ours to fix; it just became harder to stay engaged because of the competing concerns of the recession.\textsuperscript{21} Lead author of the study, John Krosnick, a professor of communication and political science at Stanford, discovered that while national surveys have been interpreted as showing that fewer Americans believe that climate change is real, human-caused and threatening to people, a closer look actually shows that “…huge majorities of Americans still believe the earth has been gradually warming as the result of human activity and want the government to institute regulations to stop it.”\textsuperscript{22}

The TRIG report also says that because climate change continues to be a long-term theme competing with short-term worries, like unemployment, the recession, home mortgages, and college tuition. Climate change is difficult to relate to because you do not feel it right now, i.e. one degree hotter; but you do feel the economy right now, i.e. one less paycheck. A 2010 Stanford University study found that when asked the “Most Important Problem,” Americans rarely mentioned global warming or the environment; yet, when asked to identify “…the most
serious problem that will face the world in the future if nothing is done to stop it,” global warming and the environment were the most frequently mentioned problems.23

When broken down by age, polls show that climate change has become one of the causes of young Americans under the age of 35, who have grown up in the decades since the discovery of man-made (anthropogenic) climate change. This generation grew up introducing recycling, reusable grocery bags and other carbon conscious behaviors into their lives. They are curious and concerned, similar to generations of the past who advocated for the social issues of their time, like children of the 1960s with the civil and social rights’ movement. Research from the George Mason University Center for Climate Change Communication found that these young Americans inherently agree that global warming is a moral responsibility. The study showed that they “…have an innate understanding of climate change and its impact on the planet,”24 and young people are “…particularly relative to [the] shifting the perceptions of those who currently hold moderately skeptical or uncertain views.”25

Pew also found that when other age groups waned in attention to global warming, young Americans are “…far more likely than older Americans to view global warming as a very serious problem.”26 Children born since the 1980s are knowledgeable and regularly discuss climate change with their parents, peers and colleagues, just as baby boomers who grew up in the 1960s discussing racial and gender equality with their parents and peers. The same study also found that young Americans are less caught up in partisan debates and are “…somewhat more optimistic than their elders about the effectiveness of taking action to reduce global warming.…”27
College-aged Americans (primarily twentysomethings) to be discussed in detail later, are the most active and hopeful demographic across the U.S. which will likely influence dramatic change in years to come as they mature into the next generation of business leaders, teachers, professionals, artists, politicians, etc. They have “…grown up with even less scientific uncertainty about climate change,” and are somewhat more concerned and engaged than their slightly older 23-34 year-old counterparts.

On an overall partisan level, polling research found that, nationwide, liberals and conservatives still exhibit wide differences in their beliefs about global warming, with conservatives more skeptical and less engaged than liberals, yet a 2011 Stanford study shows that regardless of political persuasion over 70 percent of Democrats, Independents and Republicans say they would vote for a candidate based on a “green” statement, more than a candidate making a “not green” statement. Lead author Krosnick said although, “A policy issue like climate change does not typically influence the votes of all citizens…” The research shows taking green positions on climate change helps a candidate’s electoral chances of election and taking not-green positions hurts a candidate’s chances.

Research in a report by The Resource Innovation Group (TRIG) on American climate attitudes found that our convictions about climate change became strong enough not to be swayed by news stories that undervalue the urgency of climate change, including a story released in November 2009 that was nicknamed “Climategate,” by the media. Climategate generated considerable press and accusations in the U.S. and around the world about declining concern and evidence of climate change. Despite the skepticism in news headlines, the research found that rather than daily headlines, Americans’ “…motivational states—their values, wishes and preferences—influence what information they pay attention
to, how they evaluate data, and the conclusions they draw.” Therefore most Americans already concerned with climate change probably were not disswayed by Climategate.

Critics are right that even despite polls showing a concerned public, that a large portion of Americans are still too busy, overwhelmed or disinterested to care about the changes in climate but that should not take away from the shift in certain perceptions. Since the start of the recession, well-funded opposition, policy failures and a desire for the issue to go away still leave climate change at the bottom of the list of public policy priorities, yet climate change is very much on the minds of most Americans.

**Changes in Behaviors and Actions in the post-An Inconvenient Truth era**

According to Box Office Mojo which tracks box office revenue, *An Inconvenient Truth* grossed over $24 million in the U.S., to date (from 1982 to present), making it the sixth-highest grossing documentary in the country. Also just one year after the film’s debut, Nilsen, a research firm that tracks consumer behavior, released a report that said the film “…had a significant influence on those that have seen it – in their awareness of the issues and their stated changes in habits and behaviors.”

While opinion polls provide insight into what Americans are thinking, they also only show what Americans share in specific moments based on specific questions by specific pollsters. Therefore, for this thesis it is also important to look at shifts in behaviors in the post-An Inconvenient Truth era, as they are more durable evidence of shifting climate consciousness.

This next section looks at behaviors and actions in politics, the media, corporate practices, universities, academia and philanthropy and supports the thesis that there are notable changes in consciousness since June 2006. For instance, National Public Radio’s (NPR) Richard Harris reported in 2011 that despite a presidential pledge to reduce emissions two years earlier,
actual GHG emissions from the U.S. are second only to China in emitting gases that cause global warming.\textsuperscript{35}

A study by Yale University and George Mason University in 2011 divided Americans into six categories depending on their self-described levels of concern about climate change — “Alarmed,” “Concerned,” “Cautious,” “Disengaged,” “Doubtful,” and “Dismissive”—and found varying behaviors. The study found that those Americans that described themselves as Alarmed, Concerned and Cautious are more likely to use consumer purchasing power to reward or punish companies, based on the companies’ climate change-related activities. It reported that few Americans—including relatively few of the Alarmed—said they regularly engage in advocacy or volunteerism and a minority of the Alarmed, “…said they do intend to take certain…actions more frequently over the next year.”\textsuperscript{36}

The same study reported that all groups reported talking about climate change with friends and family members, even the Dismissive discuss global warming occasionally or often.\textsuperscript{37} Therefore, even if debating opposing ideas or expressing doubt about climate change, the issue permeates conversations even among skeptics and therefore their peers, colleagues and family members who they are talking with. This discourse can influence change in consumer, voter, academic, business and family parts of our lives. In the 1960s when Americans spoke out about desegregation, women’s rights and the Vietnam War, it was not long after that changes came from the White House, Capitol Hill, businesses, schools, etc.

In terms of behavior, a study by George Mason University and Yale University found many behaviors among Americans’ to conserve energy, reduce waste and limit global warming either remained the same or decreased in “greenness” in correlation with the economic recession between 2008 to 2011.\textsuperscript{38} Americans were asked about their daily habits that affect climate
change, including public transportation versus carpooling; walking or biking versus driving; lowering a thermostat to 68 degrees or cooler in the winter; using energy-efficient compact fluorescent lights (CFLs) at home; punishing or rewarding a company for the steps taken to lower or neglect their company’s carbon footprint; volunteering with or donating money to an organization to reduce global warming; posting a comment online in response to a story or blog about global warming; and writing letters, emailing or phoning government officials about global warming. While many behaviors waned, Americans increased their use of public transportation and biking over driving a car even during the recession. Both behaviors were probably also motivated by cost savings and rising gas prices in 2009.

National Public Radio’s (NPR) Richard Harris also reported in 2011 that despite a presidential pledge to reduce emissions two years earlier, actual GHG emissions from the U.S. are second only to China in emitting gases that cause global warming. In 2009 the consulting firm McKinsey and Co. estimated the U.S. could cut its projected energy use 23 percent by implementing efficiency measures of which about one-third of that change could happen in homes.

At the same time David Fahrenthold of the Washington Post reported in 2010 that despite increasing awareness of our carbon footprints, rising use of public and bicycle transportation and advances in technology that have made many home appliances more energy efficient, the average amount of energy average American requires at home has changed very little since the early 1970s. Even with the energy efficiency of appliances and homes, experts say that American homes are getting bigger, which means more space to heat and cool and the energy used for electricity and fuels to heat homes is oil, natural gas and coal. Consumers are also buying more
power-sucking gadgets—meaning that kilowatts saved by dishwashers and refrigerators are often used up by flat screen televisions, computers, smart phones and digital recorders.\textsuperscript{42}

Knowing this, environmental groups and utility companies are finding ways to reduce household energy use and carbon footprints, including the replacement of existing sources of energy, like natural gas and coal, an industry fighting to remain in business. Some utility companies, like Edison Electric Institute in Washington, D.C., are looking at how to sell less of their product which is hoping to reduce GHGs and peak electricity demand on the hottest summer days. In order to pursue such initiatives, utilities need states to pass decoupling laws that allow utilities to get paid for kilowatts (kw) they save as well as ones they sell. The old way of utilities grew out of the 1970s during an energy crisis when unhappy times and rising energy prices had Americans using blankets and sweaters instead of turning up the heat indoors; yet once energy prices moderated we went back to old habits.

Because of these reasons and others, it becomes increasing important to pass legislation that regulates GHG emissions, to subsidize renewable energy utilities and education emphasizing how small and large choices affect energy consumption, GHG emissions and climate change. Steve Nadel of the American Council for an Energy-Efficient Economy says that we also need to encourage a utilitarian mindset and tell one another, “...Maybe you should consume a bit less.”\textsuperscript{43} A promising finding suggested in the TRIG report, is that once people become aware and start to orient their lives in ways that favor solutions to climate change, they tend to want to do more. Therefore even small behavior changes, including telling one another to consume less, can encourage a greater consciousness that permeates other parts of one’s life. So, messages like Nadel’s are important to keep pushing Americans to be considerate of what we can do but also what we can do without.
At the same time, the Environmental Protection Agency (EPA) tightened standards for coal plant emissions and the Department of Energy (DOE) began rolling out tougher energy-efficiency standards for appliances, including some that the Obama administration has already issued. Local and national government officials say more are planned. The administration is also proposing higher prices at gas pumps.

**Political Changes on a National Level**

Since NASA scientist Jim Hansen introduced the term “climate change” to the American public in 1988 during a Congressional testimony, the U.S. Senate and Congress have yet to pass federal climate legislation that might either tax emitters of fossil fuels or regulate the total amount of carbon and GHG emissions in the atmosphere; however there have been big steps moving the U.S. to engage, especially in the post-*An Inconvenient Truth* era.

For example in 2007, after Hansen’s testimony, the Kyoto Protocol, the first of different international agreements meant to encourage U.N. member countries to reduce GHG levels (by an average of five percent against the 1990 levels between 2008 and 2012) was developed and the United Nations (U.N.) Framework Convention on Climate Change (UNFCCC), which is focused on fighting climate change. With the exception of the U.S., 37 industrialized countries including the entire European community signed the Kyoto Protocol and undertook commitments to reduce emissions. As one of the world’s largest emitters failing to take responsibility, the U.S.’s negligence caused backlash and frustration around the world for years after.

In the early 2000s, the George W. Bush administration rejected Kyoto’s mandatory targets for curbing emissions saying that they would stifle economic growth, and instead explored voluntary measures including clean coal and nuclear technology. The Bush administration eventually pulled out of the international negotiations under Kyoto altogether, avoiding
responsibility as a developed country to reduce emissions. And, ironically when the Bush administration was opposing nearly all attention and action to address to climate change, *An Inconvenient Truth* was released and Gore, the former presidential opponent of Bush was able to elevate the importance and urgency of climate change to a magnitude that had not been possible even during his twenty five years in politics.

Shortly thereafter, in 2007, the Senate nearly passed America’s Climate Security Act, better known as the Lieberman-Warner Bill, to create a national cap-and trade scheme for GHG emissions where polluters would be allocated right-to-emit credits based on how much GHG they currently emit; however, after deliberation the bill was killed by Senate Republicans. In 2009, the House passed the American Clean Energy and Security Act, also known as the Waxman-Markey Bill, which would establish an emissions trading plan similar to the European Union Emission Trading Scheme, however this was also eventually killed in the Senate. In his book *Hot, Flat and Crowded*, writer Tom Friedman says with both bills America turned climate change into a “…four-letter word that many U.S. politicians wouldn’t dare utter in public.”

It has been proven that the competing worries of the economic recession and President Obama’s health care reform bill hurt the chances for Waxman-Markey to pass in both the Senate and the House. According to Harris of NPR, even U.S. Congress members “…who accept the science of climate change are concerned that if the United States dramatically slashes its emissions, that could harm economic competitiveness.” So despite the failure to sign national climate legislation, the pursuit of these bills reflects a push by the Senate and Congress to address the climate crisis. Optimists hailed the Waxman-Markey Bill as the "…first time either house of Congress had approved a bill meant to curb the heat-trapping gases scientists…linked to climate change."

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The increasingly informed public, corporations, nonprofits, lobbyists, and international community continue to enhance pressure on the White House and Capitol Hill to pursue federal emissions regulation. In addition, both the House of Representatives and the Senate established Select Committees on Energy Independence and Global Warming in recent years. National legislation on research, technology and emissions trading and reporting in terms of climate change have also been introduced on Capitol Hill.

Even during the 2008 presidential election, climate change evolved from a debate about the evidence or causes to a discussion of how to solve and lessen its impacts. Both the campaigns of Republican candidate, John McCain, and Democratic candidate, Barack Obama, were challenged to talk about climate change on televised debates, public appearances, town hall meetings and on their campaign websites.

Although some critics say President Obama has not been aggressive enough in lobbying for national climate change or GHG regulations, including when both the Lieberman-Warner and Waxman-Markey bills failed to pass through both the Senate and the House. Some pointed to criticized his 2011 State of the Union address, a time that usually outlines presidential priorities, when he made no mention of climate change, global warming or the environment. Optimists, however, suggested that the exclusion did not reflect waning presidential attention but instead Obama’s confidence in the country’s growing commitment to address climate change. In fact, during the speech Obama reendorsed his 2009 state of the union commitment, which was endorsed by all G20 leaders, to end fossil fuel subsidies, to invest in clean, renewable energy sources like solar and wind and to expand high-speed rail. The omission is a good example that speeches like the 2011 State of the Union are not always a perfect barometer for presidential commitments.
And in a column for the British paper, *The Guardian*, Suzanne Goldberg put the speech in perspective. “Despite his choice of language, to date Obama has done more than Bush or Clinton to address global warming,” including establishing an Assistant to the President for Climate and Energy; signing the Federal Leadership in Environmental, Energy, and Economic Performance Executive Order, that requires federal agencies to measure, manage, and reduce GHG emissions for government agency-defined targets which must be set and reported to the president; and signing the Executive Order on Federal Sustainability committing the Federal Government to reduce GHG emissions by 28 percent by 2020 by increasing energy efficiency and reducing fleet petroleum consumption.

As mentioned earlier, since June 2006, there have been new federal subsidies for energy efficiency improvements, and greener government building and commuting, including telecommuting, flexible work weeks and a Bike Subsidy Program launched in 2012 allowing federal employees commuting to work via bicycle to receive reimbursement for bike expenses and repair. These programs award and inspire climate consciousness among federal agencies and employees. Also the Energy Efficiency and Conservation Block Grant (EECBG) Program, established by George W. Bush as part of the American Recovery and Reinvestment Act of 2007, was funded for the first time in 2009 under Obama to provide federal grants to Indian tribes, local government, states and territories to reduce energy use and fossil fuel emissions and to improve energy efficiency. In 2009, $2.7 billion was apportioned for the block grant program enabling cities, counties and states to fund energy efficiency projects, symbolizing presidential endorsement to pursue cheap, clean and reliable energy efficient technologies and strategies across the country.
In January 2013 after being sworn in on the steps of the U.S. Capitol for his second term, Obama committed to addressing climate change as priority. He said:

We will respond to the threat of climate change, knowing that the failure to do so would betray our children and future generations. Some may still deny the overwhelming judgment of science, but none can avoid the devastating impact of raging fires, and crippling drought, and more powerful storms. The path towards sustainable energy sources will be long and sometimes difficult. But American cannot resist this transition. We must lead it….

**Political Changes on a State and Local Level**

In addition to political changes at the federal level, state, regional and local governments are making commitments to reduce their GHG emissions in the post-*An Inconvenient Truth* era. As early as 2005, mayors across the U.S. recognized the need to provide guidance on reducing GHG emissions in their cities. So, by 2007 they established the Conference of Mayors Climate Protection Center to give cities the tools to have a major impact in undoing global warming. Although it acknowledges that national legislation is necessary to make big changes, the center’s website says it “…cannot and will not wait to act until Washington is ready to move on this problem.”

By 2011, 1054 mayors joined and an additional 500 mayors had signed the U.S. Conference of Mayors Climate Protection Agreement which commits a city to reduce their emissions seven percent below 1990 levels by 2012. Under the citywide commitments, many cities also became eligible for the first time for the federally funded Energy Efficiency and Conservation Block Grant (EECBG) Program, mentioned earlier, to fund citywide energy efficiency projects.

Even before *An Inconvenient Truth*, states began coordinating on regional climate conscious efforts, too. As early as 2003, states in the Northeast and Mid-Atlantic set up the
Regional Greenhouse Gas Initiative (RGG) to cooperatively reduce GHG emissions across their states. The states sell emission allowances through auctions and invest the proceeds in renewable energy, energy efficiency and other clean energy technologies. The Western Climate Initiative (WCI) was established in 2007 with seven U.S. states and three Canadian provinces along the Pacific Coast to address climate change. The WCI set a target to reduce GHG levels by 15 percent of those recorded in 2005 by 2020 and established an emissions trading scheme to fulfill that target. Additionally, the Midwestern Greenhouse Gas Reduction Accord came about in 2007 with seven Midwestern states and the Canadian province of Manitoba with a target to reduce emissions by 60 to 80 percent by 2050. Even California set a statewide GHG emission cap for 2020 based on 1990 emissions.

In the post-An Inconvenient Truth era, most states also began entering voluntary and/or regulatory carbon markets, similar to any other (commodity) stock driven market. In these markets, one can buy or sell one of three environmental commodities: carbon offsets and allowances, renewable energy credits (RECs), and energy efficiency credits (EEs). A carbon offset represents a reduction of one metric ton in the emission of carbon dioxide, or CO2 equivalent, to balance out the emissions of a project; an allowance is a permission to emit a certain amount of GHG; a REC represents one megawatt of power generated by a renewable resource, i.e. solar or wind power; and an EE credit is 1 megawatt of power that’s been conserved or reduced in load. In the history of environmental markets, there has been nothing similar to these emissions markets and states are taking advantage of them. Though these markets are not without flaws, their increasing popularity shows a growing statewide consciousness and the need for strong oversight to ensure they comply with existing state, regional and local climate policies.
In *Hot, Flat and Crowded*, Friedman writes about Juneau, Alaska in 2008 which proved that, Americans *can* untangle themselves from fossil fuel dependencies. After avalanches cut the city’s connection to a hydroelectric dam and raised utility rates more than 400 percent, residents saved much of the city’s power supply by 25 percent when they washed dishes by hand and ate by candlelight. Even with examples like Juneau, Alan Meier, an academic at the Energy Efficiency Center at the University of California at Davis says even with some change, “It remains to be seen, whether people are willing to change their habits and make them permanent,” especially when fossil energy remains cheap and conditions are not forcing major changes in habits.

At a local grassroots political level, there are endless initiatives focused on climate consciousness, is too long to list however the surge in activity and enthusiasm in the post-*An Inconvenient Truth* era is important to note. Events like Step It Up, organized in 2007 and marked as the largest grassroots environmental demonstration in years when more than 1,400 communities across 50 states held events in their communities to draw attention to global warming solutions.

Americans are using their voting power, too, to influence politicians on their climate change concerns which the Stanford University study mentioned earlier shows that taking green positions helps a candidate’s electoral chances and taking not-green positions hurts a candidate’s chances. At the national, state and regional scales, changing attitudes are increasing influence by the international stage. Since the initial climate negotiations in Kyoto in the 1990s, it is still challenging to get all countries around the world to take responsibility without upsetting economic competitiveness. Europe has long been a leader at the international climate negotiations and in making global commitments; however the U.S.’s failure to commit has reflected an
unwillingness to acknowledge our responsibility hurt global progress. For instance, in November 2009, the U.S. joined the rest of the world and committed to the outcome of negotiations in Copenhagen, Denmark, for a pact called “pledge-and-review,” where countries agree to set national goals for reducing emissions, allowing countries to reflect on their national and economic development while deciding on realistic reductions. The U.S. committed to reducing emissions 17 percent below 2005 levels by 2020 (which still has not happened) but because the pledge was non-binding and contingent upon national climate legislation, our failure to reach the targets only resulted in international disapproval.

In December 2011 at the international climate negotiations in Durban, South Africa, the U.S. (and China and India, the three largest emitting countries who were not included under the Kyoto Protocol) and all other 193 UN member countries agreed to develop and enter into the Durban Platform for Enhanced Action Agreement. Though the terms of the agreement will not be developed until 2015 and implemented until 2020, once approved all countries will be bound to limit emissions. With the U.S. finally agreeing to take responsibility for our emissions and their impact on climate change and the rest of the world, there is a new reason for Congress and the Senate to pass national climate legislation in order to work toward the Durban targets that will be set.

Even with these actions, the U.S. still needs major federal regulation and financial (i.e. tax) incentives to reduce emissions levels needed to affect dramatic change. For instance, even with small price hikes in gasoline during the recent recession, the post-An Inconvenient Truth era has not forced extraordinary change. In the early years of the recession that began in 2008, NPR reported that America’s “…national GHG emissions [even] fell for a short time,” yet even with the slow economic recovery, emissions have gone back up. And according to Kevin Kennedy of
the World Resources Institute (WRI), “…it looks like we’re starting to see an uptick again, and you would expect to see emissions continuing to increase in a business-as-usual case out to 2020.” That uptick is important because estimates predict that even if federal agencies and states pursue their current plans for reductions, the U.S. could achieve emissions reductions that approach but fall short of President Obama’s pledge at Copenhagen. Therefore even though the “… political climate makes it very difficult to move forward in a comprehensive way,” experts agree that climate change must remain as a critical part of the political agenda and public discourse with opportunities for scaling up regulation, technology and emerging green industries must be taken.

**Changes in the Media**

Just as behavioral shifts in politics demonstrate changes in climate consciousness in the post-*An Inconvenient Truth* era, so do the volume and nature of newspaper, television, radio, online, etc. coverage of the issue. As early as 2001, the American religious community, including Catholic bishops, Protestant and Orthodox Christian leaders, were beginning to connect climate change with moral arguments in the media, including groups that sent messages to President Bush saying that he needed to acknowledge the moral imperative of responsible environmental policy. A 2001 article in the *Boston Globe* reported that, “The nation's Catholic bishops declared yesterday that acting to stop global warming is a moral imperative….” and mentioned a coalition of Protestant and Orthodox Christian leaders in New York who released a statement on par with the message of *An Inconvenient Truth*. It read, “By depleting energy sources, causing global warming, fouling the air with pollution, and poisoning the land with radioactive waste, a policy of increased reliance on fossil fuels and nuclear power jeopardizes health and well-being for life on Earth.”
Even in 2005, *The New York Times* published opinion articles and letters to the editor connecting global warming and morality, in conjunction with the G8 summit. In her 2008 master’s thesis from Georgetown University, Jennifer Doak mentioned these articles from the 1990s, when President Bill Clinton said global warming was a moral imperative, perhaps influenced by his vice president, Gore. Following Clinton, the President George W. Bush administrations had little interest in climate change as a problem, and consequently in that time some media traction waned and instead followed the priorities of his presidency.

Since June 2006, American media coverage of climate change has focused on the ethical imperative (both positively and negatively) of climate change more than before the film’s release. In fact, a title search containing “climate change,” “moral imperative,” and the “United States” in Lexis Nexus, an online research service of newspapers, magazines and journals, aggregate news sources, etc., shows a jump in coverage from the pre-*An Inconvenient Truth* era to the post-*An Inconvenient Truth* era. Between January 1, 2000 and January 23, 2006 the search generated 21 articles whereas a title search after the film’s first premiere at the Sundance Film Festival, generated 142 articles between January 24, 2006 and Nov 1, 2011.

In terms of television airtime for climate change, a study by the Pew Center’s Project for Excellence in Journalism (PEJ) found that while newspapers steadily increased their coverage of the issues in the post-*An Inconvenient Truth* era, radio, network television and online coverage have slightly decreased in recent years. In fact, between 2007 and 2009, national journalism coverage (combined radio, network television, newspaper, online and cable) of the environment only ever represented as much as 1.9 percent of the total overall coverage; yet in many cases, climate change is now an umbrella issue for other environmental issues and was probably included in the majority of the stories. The next biggest spikes in the past three years included the
week when the Supreme Court ruled that the EPA had the authority to regulate car emissions (5.4 percent of the newshole), and the week when a UN climate report found that humans were very likely the cause of climate change (4.9 percent). A similar study found that nightly television news coverage of global warming on NBC, CBS, & ABC peaked in early 2007 and by 2009 dropped to one fifth of the peak, with a sharp increase in the month around the international climate negotiations in Copenhagen.

In the post-\textit{An Inconvenient Truth}, social media, like Facebook and Twitter, has also helped spread stories and opinions of the ethical obligations of climate change, which are outside the other data, keep the issue afloat at a viral and substantial level era. Along with traditional forms of media, social media replicates conversation and information sharing at incredible speed and volume. Like most of the rest of the world, Americans in the post-\textit{An Inconvenient Truth} era are reading, watching or blogging, tweeting and Facebooking to join climate change conversations.

In terms of academic publication, a Google search for scholarly articles containing “climate change,” “United States” and “ethic” between 2000 and 2011 found 9,250 articles. Of those, only 2,350 were between 2000 and 2005, and the other 6,900 articles were published in the post-\textit{An Inconvenient Truth} era, between 2006 and 2011. Additionally a search in the Internet Movie Database (IMDB) found one documentary about “climate change” and the “United States” between 2000 and 2005 and found another 30 released in the U.S. between 2006 and 2011.

While these studies show that the American public is daily reminded, educated and challenged by the urgency and responsibilities of climate change by the media, yet still in comparison to overall news coverage, climate change pales in comparison to other timely and
sexy stories. The traditional media (newspaper, television news programs, etc.) still does not
cover climate change with the volume to make it a top news issue.

**Academia and University Trends**

One of the most dramatic examples of growing climate consciousness in the post-An
Inconvenient Truth era can be found on university campuses and with college students in the U.S.
Just as American universities influenced change during the pivotal times like the civil rights
movement of the 1960s, colleges and universities in the post-An Inconvenient Truth era are
attracting and inspiring students and faculty with academic courses and campus cultures of
sustainability imbuing concern for the changing climate.

Research shows that college students today are more aware and focused on climate
dchange than ever before. A George Mason University study mentioned earlier found that college-
aged Americans, children born since the 1980s, regularly discuss climate change with their
parents, similar to baby boomers discussing racial or gender equality with their parents during
the civil rights movement of the 1960s. They are also the most optimistic and hopeful for
reversing global warming, too, of any generation of Americans. The research found that they
have “…grown up with even less scientific uncertainty about climate change” and are somewhat
more concerned and engaged than their slightly older 23-34 year-old counterparts, too.

An annual survey started in 2008 by the Princeton Review, a company helping
undergraduate and graduate school-bound students with test-preparation, tutoring and admissions
resources, evaluates campus sustainability based on three criteria: the healthy and sustainable
quality of campus life, how the school prepares students for employment and citizenship in a
world defined by environmental challenges, and the school's overall commitment to
environmental issues. In 2009, it found that “…two-thirds of students surveyed…said a college's
‘environmental commitment’ would be a factor in where they applied.” The study also found a significant rise in green degrees in recent years among college graduates.

A USA Today article about the survey in 2009 reported that, “It isn’t even just what classes are offered. It’s the culture students and faculty are committed to on a campus—are there recycling stations, are the buses run on biofuels, are there local farmers markets, is there a culture of caring for the environment?” These findings show that the majority of students attending U.S. colleges and universities in the post-An Inconvenient Truth era value the responsibilities of climate change and seek to study and participate in responsible actions during their college years. They are interested in campus carbon footprints, how and what natural resources their universities are using, and university coursework related to climate change.

Today’s college students also anticipate a job market that values environmentally aware employees and climate conscious business practices, whether in for-profit, non-profit, government, entertainment, architecture, engineering, medical, education or other fields and are seeking colleges where that can meet their needs. According to a USA Today article by Julie Schmitt in 2009, the “Obama administration…estimated that jobs in energy and environmental-related occupations would grow 52 percent from 2000 through 2016, versus 14 percent for other occupations.” The student, faculty and industry demand is driving universities to grow climate-focused programming even while cutting others. In fact, according to a 2009 the Association for the Advancement of Sustainability in Higher Education, more than 100 new majors, minors or certificates were created in energy and sustainability-focused programs at big and small colleges, which was up from just three programs added in 2005.

University administrations are also investing in and inspiring change by signing the American College and University Presidents’ Climate Commitment (ACUPCC), established in
2008, which promotes research and education supporting climate neutrality and to create solutions to the problems of climate change. According to its website, the ACUPCC has a utilitarian flavor like that of *An Inconvenient Truth*, seeking to support a “…thriving, civil and sustainable society,” to address global climate change, which it calls “…the defining challenge of the twenty first century,” likening the responsibility to historically important events like the Marshall Plan, the Apollo Space Mission and the attempt to eradicate cancer. The mission statement declares that universities are obliged to do what they can:

> What will society say…if we have runaway climate change and we, who have the expertise and the mandate of education and research for a thriving society, didn’t do everything we could to help society recognize the risks and find solutions to the challenge? 

When university presidents sign the ACUPCC, they commit to a framework to support a three tiered approach: one, to initiate and develop comprehensive plans to achieve climate neutrality as soon as possible; two, to initiate tangible actions to reduce GHG gases from campus operations while more comprehensive plans are being developed; and three, to make the action plan, inventory and progress reports publicly available. According to the website, by June 2012, 677 college and university presidents signed the ACUPCC; 1,556 GHG inventories were completed; and 462 climate action plans were submitted. The commitment by hundreds of institutions is influencing America’s next generations in varied disciplines and geographies to join the working world as climate conscious, concerned and capable individuals.

Some examples highlighted in the 2011 Princeton Review sustainability survey of over 800 schools included Arizona State (ASU) which installed the largest collection of solar panels on a single American university campus, bus and light rail passes for all student and employees, car-sharing, a carpool program and a student-run bicycle co-op offering low or no-cost bike repairs and free bike rental. Despite having the toughest admission standards of any school on
campus, ASU’s School of Sustainability, a graduate and undergraduate program focused on solutions to environmental, economic and social challenges, has grown at more than any other program on campus.\textsuperscript{76}

Another school mentioned in the 2011 study was Virginia Tech University (VT), which signed and approved the Virginia Tech Climate Action Commitment that created the Office of Energy and Sustainability that establishes targets for the reduction of GHG emissions, emphasizes energy efficiency, and commits to pursue LEED certification for new construction and renovation on campus. VT offers 17 undergraduate and 15 graduate degrees aimed at sustainability in engineering, science, technology, design, natural resources, health, humanities, planning and policy. One of the campus dining facilities even partners with an off-campus farm to provide sustainable and locally-sourced produce and then takes the waste from the dining halls either to be recycled or composted.

Oregon State University (OSU) installed a large solar hot water system in its recreation center and uses elliptical machines in the center to generate power for the building. And in 2008 OSU also won an award for green power leadership as the seventh largest purchaser of renewable energy among U.S. colleges and universities. The University of Washington (UW) installed solar panels and water efficient toilets retrofitted for energy and water reduction, has 300 alternative fuel vehicles for university business, and 26 percent of its food serviced on campus is organic, local or fair trade.

Perhaps most interesting is Bucknell University in Lewisburg, Pa., that requires all students to take at least one class that explores the human connection to the environment.\textsuperscript{77} According to Dina El-Mogazi, director of the campus greening initiative, the purpose of the
program is to help “...students understand both the way the environment supports human life and the way human decisions’ affect the environment's ability to function.”

Recycle Mania, created in 2001, is an annual competition in North America and Canada where schools compete to collect the largest amount of total recyclables, the largest amount of recyclables per capita, and the least amount of waste per capita or to have the highest recycling rate on campus. The event’s website reports that “…past surveys indicate 80 percent of participating schools experienced a noticeable increase in recycling collecting during competition.” The competition grew from two participating schools in 2001 to 93 schools in 2006; to 510 schools (from all 50 states) in 2009.

In addition to courses and campus sustainability initiatives, academic research of climate change on America’s 4,000+ universities has grown exponentially since the release of An Inconvenient Truth. A November 2011 search on Googlescholar, an online search engine for academic publications, looking at articles published in the U.S. with “climate change” or “global warming,” found 700 (140/year) articles between 2000 and 2005 and 16,500 (3,300/year) articles between 2006 and 2011. A search in ProQuest’s online dissertation and thesis database also shows 42 papers about “climate change” and the “United States,” between 2000 and 2005; and four times as many, 169, from 2005 and 2011. This thesis, for one, is a credit to that growing body of research.

When critics point to slow or minimal progress in responding to climate change in the U.S., the changes on American colleges and universities show just the opposite. With research showing that the majority of today’s college students are already conscious about climate change and campuses working to ensure that students graduate as even more conscious, there is certainly a crop of civil servants, politicians, scientists, engineers, teachers, writers, architects, farmers,
entertainers, athletes, parents and individuals graduating each year with a greater understanding and awareness of climate change and how it must be a central concern in their lives.

The Consciousness of Corporations

In the post-*An Inconvenient Truth* era, corporations, too, are feeling pressure and a desire to do business in a climate conscious manner. One year before the release of *An Inconvenient Truth*, a 2005 article in Stanford University’s *Social Innovation Review* reported that corporate social responsibility was beginning to grow from “…a fringe activity by a few earnest companies like The Body Shop, and Ben & Jerry’s, to a highly visible priority for traditional corporate leaders from Nike to McDonald’s.” Since the release of the film in 2006, the pressure for business to take responsibility for their carbon footprint and GHG emissions has grown.

Though there were climate conscious corporations before the release of *An Inconvenient Truth*, the research shows more corporations (and small businesses) are thinking about climate change in recent years. By 2007, just months after the release of *An Inconvenient Truth*, the think tank McKinsey reported that sustainability had risen to the top of corporate agendas, especially among younger CEOs. In a *Business Week* article, Patrick Cescau of Unilever, a U.K. based company, said today’s world is different than in decades past and helping nations wrestle with social issues, like the “effects of climate change is vital to [corporations] staying competitive…” It was not too long ago that corporations used to fear environmental regulation, yet in the post-*An Inconvenient Truth* era many are opting for greener practices and regulation for the sake of good business and at times because of pressure to be competitive.

The corporation came about in the U.S. one hundred and fifty years ago, after the Civil War ended and the Industrial Revolution began. Although it was relatively insignificant then, today it is all-pervading, both influencing and entering nearly every part of our lives. Above all
else, corporations are legally beholden to maximize profit for their shareholders. So with profit as the number one goal, corporations traditionally had little incentive to align their practices with environmentally responsible practices and instead encouraged citizens to buy things we need and do not need.

Around the world in rural and urban areas, the majority of the goods and services that our lives depend on—agriculture, electricity, gasoline, cars, airplanes, computers, clothes, pharmaceuticals—are tied to these companies. In fact, according to Annie Leonard, author of *The Story of Stuff*, today of the one hundred largest economies in the world, over half are corporations. With such influence over people and a huge percentage of the world’s economy and natural resources they have profound power to contribute to the problems and solutions of climate change. In the book *The Bridge at the Edge of the World: Capitalism, the Environment, and Crossing from Crisis to Sustainability*, environmental lawyer James Speth writes, “Though there are individuals in corporations committed to protecting the planet, their sheer size often makes them difficult to control.”

Corporations are not inherently good or bad, but as Leonard says, “It’s how the corporation is run that makes it an asset or a detriment to the broader society.” They hold immense power to influence ethical or unethical behavior among suppliers, competitors, consumers and the company itself in the growing, extracting, sourcing, producing, packaging, shipping, and marketing of products and powering company operations. When a corporation misuses resources or ignores its environmental footprint, the negative impacts and unregulated emissions are absorbed by the public that must work and pay to resolve them, i.e., smog in the atmosphere. On the other hand, when a corporation takes ownership for its impact and uses
resources responsibly and monitors its environmental footprint, it can help to mitigate the negative impact of climate change and influence industry peers, competitors and policymakers.

Not long ago, transparency and reporting on environmental impacts was typically done to polish a corporate image, however with increasing pressure from competitors, consumers and industry standards for corporate environmental and social responsibility, there is more emphasis to be transparent. Corporations are overcoming their fears and acknowledging their responsibility to improve their consumer loyalty, to green their workplaces so that they benefit employees, to increase work force productivity, to attract and retain skilled workers and to lower overhead costs, including electric and heating and air-conditioning bills. And, they are realizing climate conscious practices are good for their image, consumer loyalty, competitor influence, and preparing for federal regulations that will happen someday.

An article published in September 2012 in Inside Climate News, an online news source, says that, “With climate policy paralyzed in Washington, a number of leading U.S. corporations are going it alone, squeezing big reductions of climate-changing emissions from their operations and supply chains.” The article says the three main reasons for acting are the tough economy encourages business to rigorously track and reduce spending and electricity use, the rise in extreme weather and climate impacts on company operations and assets and pressure from the investment company to set goals for reducing GHG emissions. In fact, of the major U.S. corporations surveyed in 2011 by the nonprofit Carbon Disclosure Project, 89 percent more were taking action than in 2010. And according to the auditing firm, Price Waterhouse Coopers, roughly a quarter of the country’s top public companies are reporting emissions data and global warming risks as part of their overall financial picture, something that five or six years ago,
probably none of them were doing. Companies are even hiring third party entities to audit their GHG emissions and verify the results.89

To determine who and how climate conscious a corporation is, one could look at an endless list of questions from nearly every part of its operations - Is the company run with environmental integrity and climate change in mind? What does the company supply chain look like? What fossil fuels are used and what are their carbon and GHG emissions during production and company operations? What kind of energy (wind, solar, natural gas, coal, etc.) powers the product supply chains and offices? What resources are used or extracted to make a product? Does the corporation track its carbon footprint? Does the company track the environmental destruction from producing its products? Are the goods produced sustainably? What does the corporation do to offset its environmental destruction or fossil fuel emissions? Does the corporation encourage or incentivize climate conscious discussion and practices with employees, competitors and policymakers?

Another survey conducted by CFO Research and Jones Lang LaSalle in 2008 found that over 50 percent of the executives believed their companies are “very likely” or “somewhat likely” to increase revenue, reduce operating costs, improve investor returns and shareholder value, and improve employee retention through sustainability efforts because of reduced risk, enhanced brand and reputation, customer retention, and improved employee health and productivity.90 The executives prioritizing sustainability, reduced GHG emissions, and reduced environmental impact of their operations “…believe sustainability can lead to cost savings, increased revenues, greater customer retention and a competitive advantage… an opportunity that cannot be ignored.”91

In recent years corporations are also extending the responsibility to customers. Consumer behavior affects corporate supply chains by driving demand for natural resource extraction from
the earth to produce the products we buy, how and where corporate dollars (and stockholders) flow can affect a company’s consciousness and influence company standards and industry norms. And research is showing that across the globe, consumers - Americans included - want to be more climate conscious and will pay a little more to do so.

In fact an article by Business Media LLC, says that corporations have begun to pay increasing attention to sustainability and corporate social responsibility, largely in response to rising costs and stakeholder concerns. The article also reports that some of the largest and most powerful corporations, often criticized for socially and environmentally irresponsible practices, like Walmart, are working to cut overall energy use, are working to “green” their supply chains. Even Exxon Mobil Corporation, long opposed to linking government policy with global warming theories, now says it too is investing in what the U.S. should do to cut fossil fuel emissions.

It is also true that as companies are more responsible and aware, they become better at hiding their mistakes and covering up socially irresponsible behavior, such as lobbying activities or tax avoidance. And despite increasing awareness, relying on consumers to do everything is unrealistic because, “The truth is the gap between green consciousness and green consumerism is huge,” says Joel Makower, co-author of The Green Consumer Guide.

**Patagonia: A Leader in Corporate Consciousness**

Patagonia, an outdoor equipment and clothing company, is arguably the most climate conscious company in the U.S. It is known as an industry leader for its durable products and its minimal environmental footprint. For the nearly 40 years it has existed, founder Yvon Chouinard has run Patagonia with a nontraditional business model: the environment comes first and profit comes second. Susan Casey of Fortune magazine says, “The place is all business,
but…everything about it flies in the face of consultants' recommendations about how to maximize profits and cut costs."

Unlike companies now moving to become climate conscious, Patagonia began as a conscious company and has worked to educate itself and to implement a long list of initiatives to limit their environmental footprint and build a business that inspires employees, customers and business peers (including Walmart) to avoid harm to the planet. Patagonia’s website says, “…our business relies on natural resources to stay alive, and we are…a part of the system and obligated to maintain it.” Chouinard, who often calls himself a most unlikely businessman, and his wife, Melinda, decided that their personal philosophy would be the only way they would run the company: “….the health of our home planet is the bottom line, and it’s a responsibility we all must share.”

And in the post-An Inconvenient Truth era of choosing to be climate conscious or not, the company proves the skeptics wrong. Chouinard often publicly makes the business case for operating as environmentally ethically as they have. In Casey’s article he said, “Every time we’ve elected to do the right thing, even when it costs twice as much to do it that way, it’s turned out to be more profitable…[and] strengthens my confidence that we’re headed in the right direction.... And Marc Gunther, Senior Writer for Greenbiz.com wrote, “In an industry where lots of companies…are thinking hard about sustainability, for obvious reasons -- their business depends on the outdoors -- Patagonia is leading the way.”

As long as Chouinard is around, the company, its employees and its partners will remain reflective about how ethical their brand is and what more it can do to inspire partners, competitors and customers to consider their values. In the year after An Inconvenient Truth debuted in the U.S., Chouinard challenged a Stanford University audience, like he has historically done at
Patagonia, to examine their own lives examined like he has tried to do as an individual and a business man. “How many of you saw Al Gore’s movie and walked out and did nothing? Act; do something.”

Chouinard says in the early years of business, the questions that most plagued him, far superior to product design or growth, were about the deterioration of the natural world. So in the early 90s when conducting an environmental assessment program of their products and found everything they make pollutes, Chouinard decided to make some drastic changes. In his autobiography, *Let My People Go Surfing*, he writes, “…[Personally] you have to be true to yourself; you have to know your strengths and limitations and live within your means. The same is true for a business. The sooner a company tries…to ‘have it all,’ the sooner it will die.”

Patagonia started a life-cycle analysis of the four main threads they used: nylon, cotton, polyester and wool, and found the dyes were toxic so they converted to less toxic dyes made in Germany. They switched to organic cotton after finding, “Today 25 percent of the annual worldwide insecticide use and 10 percent of the annual worldwide pesticide [many of which were originally used in warfare] use are applied to conventionally grown cotton…”; Chouinard said not to have switched would have been “unconscionable.” Since then The Gap, Levi’s, Nike and Walmart followed Patagonia’s lead to buy organic cotton. In fact, in 2006 *Fortune* magazine reported, “Walmart became the world's largest purchaser of organic cotton.”

By the early 2000's Patagonia partnered with Teijin, a Japanese fabric company, that invented Synchilia, a product manufactured by taking soda pop bottle, made of polyester and recycling them into a raw material for fleece jackets so it can be nearly endlessly recycled, saving waste from landfills and massive amounts of petroleum and natural resources that would be used for completely virgin material. Patagonia also began accepting products made from
fleece, nylon and organic cotton from customers to recycle; they stopped using chlorine in their wool products, eliminated polyvinyl chloride (PVC), a carcinogenic plastic which is ubiquitous in society and instead of antimicrobial silver, a groundwater pollutant for its underwear lines, uses a product made of crushed crab shells for odor control. (Antimony, a toxic heavy metal, is still in many of their products but they are searching for how to eliminate it).

In addition to the products themselves, Patagonia reduced the waste and carbon that goes into packaging material eliminating Ziploc plastic bags and cardboard frames for expedition wear and plastic packaging for underwear. In the first year alone these efforts kept twelve tons of material from being shipped around the world that would contribute to climate change (and end up in landfills), increased profits by 25 percent and saved the company $150,000.  

In another act of walking the talk, Patagonia became the first California based company to use renewable energy sources to power all of its buildings, and one of the first to print catalogs on recycled paper. The company headquarters in Ventura, California eliminated disposable cups and plates in their office saving money and energy that goes into producing and disposing of them and asks employees to recycle what they can and to compost food waste in separate containers throughout the office. Additionally after an energy audit of all the facilities, Patagonia switched to energy-efficient lighting, repainted its wood ceilings white to reflect light, and put skylights and efficient heating and cooling technology into place to save 25 percent annual electric use, taking a major dent out of the fossil fuels burned and their carbon footprint.

In addition to the climate conscious efforts mentioned, Patagonia’s website currently lists 19 other environmental initiatives including One Percent for the Planet, established in 1996 for small and large businesses to donate one percent of their annual profits to support environmental groups and organizations trying to save the natural world (rivers, oceans, forests, deserts) and its
living creatures. One Percent now includes 500 companies, including Patagonia, whose one percent contribution in 2011 was $2.5 million. The Footprint Chronicles, which allows consumers to track a specific Patagonia product from design to delivery, and the Common Threads program, a recycling program that accepts old Patagonia clothes and puts them to new use. The goal of Common Threads is consciousness, which Chouinard explains it as “…Reduce. Don't buy what we don't need. Repair: Fix stuff that still has life in it. Reuse: Share. Then, only when you’ve exhausted those options, recycle.” In 2011 on the day after Thanksgiving, known as Black Friday, the most profitable shopping day of the year in the U.S., Patagonia introduced Common Threads with a full page advertisement, as shown in Figure 6, in the New York Times, the country’s most widely read newspaper. It read, “We ask you to buy less and to reflect before you spend a dime on this jacket or anything else.”
DON’T BUY THIS JACKET

In Black Friday, the day in the year when home fires are lit to their peak, and when the nation’s home fires are lit to their peak. But Black Friday, according to one consumerist writer, has the economy of a small country that supports all the living expenses of a small country. To make matters worse, the economy of the country is stall, and the country is now on its own.

Chownard'sardon to the influence of advertising. If you want to be the most successful country in the world, you need to be the best company. In his autobiography, Chownard concludes that Patagonia


Chownard says Patagonia does not want to be a big company but instead “the best company” that practices self-control. In his autobiography, Chownard concludes that Patagonia
realizes it will "…never make a totally sustainable, non-damaging product. But it is committed to trying."¹⁰⁸

**Interface, Inc.**

Like Patagonia, Interface, Inc. proves that climate conscious corporations can be profitable. Before he passed away, founder and former CEO Paul Anderson said, sustainability “…has proven to be the most powerful marketplace differentiator I have known in my long career. I can't tell you how much business we've won because of the reputation we've developed.”¹⁰⁹ Interface was named to CRO magazine’s (formerly *Business Ethics* magazine) 100 Best Corporate Citizens List for three years. In 2006, Sustainablebusiness.com also named Interface to their list of Companies Changing the World, and GlobeScan, a company measuring companies leading more sustainability, listed Interface #1 in the world for corporate sustainability.¹¹⁰

Unlike Patagonia which was a *founded* with environmental ethic as the guiding principle, Interface Inc., the world’s largest commercial carpet manufacturer, based in the U.S, only shifted gears after customers started asking tough questions. Anderson once said, “For [the first] 21 years, I never gave a thought to what we were taking from the Earth or doing to the Earth in the making of our products.” Then in the summer of 1994 after customers asked what Interface was doing to and for the environment, Anderson said he realized, “The real answer was not very much. And it really disturbed many of our people [employees]. Not me so much, as them.”¹¹¹

As he tells the story in the documentary, *The Corporation*, Anderson did not have an environmental vision and was desperate for inspiration so he read Paul Hawken’s book, *The Ecology of Commerce*, which endorses the idea that industrialization is spoiling the planet and only industry leaders are powerful enough to change. After reading the book, Anderson said he
had “…a total shift of mindset, a change of paradigm,” and convened a task force at Interface to assess the company’s environmental position and footprint.

When discovering making carpets required vast amounts of petroleum, leaving behind high levels of fossil fuel emissions, unrecyclable waste and environmental neglect, Anderson question a general business ethic and the purpose of Interface, which he mentions in *The Corporation*.

Can any product be made sustainably? Well not, any and every product…Some products should not be made at all, unless we can make carpets sustainably, then perhaps we don’t have a place in a sustainable world, but neither does anybody else.113

In *The Corporation*, Anderson decided business as usual was not the way of the future but that business was the way to bring about change. He said, “There's really only one institution on earth that's large enough and powerful enough and pervasive enough and wealthy enough to really change all that…It is the institution of business and industry, the very institution doing the damage, my institution.”114 Anderson reorganized the billion dollar-a-year company with a sustainability approach called “Mission Zero,” aiming for zero waste, zero pollution, zero use of fossil fuels, and zero use of materials from the earth that cannot be renewed rapidly and naturally. The transformation would focus on carbon footprint reduction, product innovation and culture change to make Interface fully sustainable by 2020. Anderson envisioned Interface as the first company to show “…the entire industrial world what sustainability is in all its dimensions: people, process, product, place and profits….”115 The company started diverting waste from landfills, sourcing 30 percent of its power for operations and manufacturing with 30 percent renewable energy. A large portion of sustainability success has come through employee buy in and the harvesting of employee ideas. They also began a program for reclaiming and reusing carpeting which gathers used and post-industrial carpet. The recycled materials end up in
products like the Convert line of carpet from InterfaceFLOR. As part of its waste elimination goal Interface [is also] redesigning processes and products in order to use recovered material and bio-based ingredients. By 2009, the company estimated it was halfway towards its goal of zero waste.

Before he died, Anderson leveraged his experience to affect industry-wide change by serving on President Clinton’s Council on Sustainable Development and co-chairing the Presidential Climate Action Plan in 2008, a team that presented the Obama Administration with a 100 day action plan on climate. As quoted in Anderson’s Washington Post obituary in 2011, environmental expert Lester Brown, the president of the Earth Policy Institute, recognized Anderson as the CEO that has done more for sustainability than any other. “It’s not often that you have a corporate CEO who is as committed to environmental issues or more than those of us in the environmental movement itself.” Like Chouinard, Anderson remained humble and acknowledged the opportunities still left to pursue. In an interview with the Financial Post in 2005, he said, “I’m also an industrialist and an entrepreneur and as competitive as anybody you’re likely to know. I’m still a plunderer, but only two-thirds as much as I was.”

**Walmart**

Walmart, an American multinational retailer that runs chains of large discount stores, is one of the biggest corporations in the world, the biggest employer in the world and the biggest private user of electricity in the U.S., with each of its 2000+ supercenters using enough energy to power all of Namibia. Because of its size and impact on the world, Walmart is a superlative example of how company practices can affect customers, competitors, employees on a colossal level. Walmart’s ambition to be environmentally responsible dates back to founder Sam Walton’s vision for the company, however its practices did not start to align with that until fairly recently.
In 2005 Walmart came under fire for business practice violations and complaints, thereafter CEO Lee Scott committed the company to become a leader in sustainability by investing $500 million annually in projects with three goals: reducing waste to zero, moving toward using only renewable energy and offering more products made in a way that preserves the environment.

Like Anderson from Interface, Rob Walton, the son and successor of his father Sam, says he had not previously considered how wasteful the company’s business practices were but after a change in perspective during a family vacation to Africa, he started considering how to change those practices and to use the Walton Family Foundation to protect and preserve the natural world. The business transformation only happened after Walton and his son, Ben, went scuba diving in a Costa Rican national park with conservationist Peter Seligmann of Conservation International (CI), a nongovernmental organization. Seligmann persuaded Walton with three reasons for him to address climate change and other environmental concerns: Walmart could improve its image, motivate employees, and save money by going green. Seligmann convinced Walton to start greening Walmart’s business practices and to donate to environmental conservation.

Thereafter Walmart started to make commitments, including a comprehensive environmental assessment of company operations and the production and shipping of its products around the world. The assessment found Walmart’s environmental impact was far from responsible or climate conscious so it took the first of many future steps to be conscious climate conscious—eliminating packaging for one of its toy lines which would save 3,800 trees, saving a million barrels of oil ($2.4 million a year in shipping) by installing auxiliary power units on the 7,200 trucks that ship products to save wasted fuel to keep the cabins warm during breaks from the road; investing in sandwich balers to recycle and sell plastic that used to end up in the trash
for landfills, a fossil fuel reduction and $28 million dollar saving. That same year, Walmart also disclosed the amount of carbon dioxide it emitted into the air with the burning of its fossil fuels.

In July 2006 *An Inconvenient Truth* was screened for Scott and Walmart employees. At the event Gore praised the company for starting to confront the moral obligations of global warming. At the screening Scott said, “The message from Walmart today to the rest of the business community is, there need not be any conflict between the environment and the economy. We will find the way not only to reconcile (those), but to find new profits and new opportunities as we do the right thing.” 120 He said the leadership they were starting to take, including becoming the biggest seller of organic milk, the biggest buyer of organic cotton in the world, cutting packaging and energy use and opening two “green” supercenters121 was unmatched and absolutely necessary. “I believe that this kind of commitment is so important that the rest of the world is likely to be listening and learning.”122

Since Gore’s speech Walmart has become 30 percent more energy efficient, installing energy efficient lighting, retrofitted refrigerators and tightening standards for many of its suppliers. It says that climate change is incorporated into over a dozen internal networks including facilities, internal operations, logistics, alternative fuels, packaging, chemicals, food and agriculture, electronics, textiles, forest products, jewelry, seafood, climate change and China. It has formed hundreds of partnerships with nonprofits, consultants, regulators, suppliers and corporations, like Patagonia, to get serious about their sustainability ideas, goals and monitoring progress. They even are investing in employee understanding and listening for supporters and critics of Walmart.

Though it has miles to go Scott said the company’s climate conscience has been one of the best decisions the company it ever made. "Sustainability helped us develop the skills to listen
to people who criticize us and to change where it's appropriate." He even said the new business approach may have nurtured a new set of values in its employees and customers. “It also gives them another reason to feel good about Walmart, a sense of working for a ‘higher purpose.’”

Even Scott himself said he has experienced a personal moral shift and personal passion for the issue from what first started as an intellectual interest. He even traded in his Volkswagen Beetle for a hybrid Lexus SUV after seeing the impact of global warming first hand.

Patagonia, Interface and Wal-Mart all want their customers to consume better. They are different the variety, products and scale of their business but all examples of successful, climate conscious companies in the post-An Inconvenient Truth era. With more CEOs, like Chouinard, Anderson and Scott, asking tough questions and recognizing that their own willingness to change can reverse climate change and inspire greater change, America will continue on a path of real change.

**The Consumer Side of Corporate Consciousness**

In addition to business practices and consumer practices of corporations’ climate consciousness in the post-An Inconvenient Truth era, there is growing market for investing in socially and environmentally responsible companies. Investment firms like Goldman Sachs started ranking energy and mining companies based on financial returns and sustainability factors. In many instances, the rankings even show that companies on sustainability and environmentally responsible lists do better than their industry peers not on the lists. Mutual funds investing in companies meeting socially and sustainably responsible criteria soared from $12 billion in 1995 to $178 billion in 2005, as estimated by the Social Investment Forum (SFI), and by 2011 SFI that number was estimated at eight times as much, with “$80.9 billion…invested in 375 alternative investment funds (private equity and venture capital funds, property investment
funds and hedge funds) incorporating environmental, social and governance...since the beginning of 2010.” Overall, it is estimated the market is about $3 trillion alone in the U.S. with rising investor demand.

In the spirit of *An Inconvenient Truth*’s message, one executive surveyed in the CFO Research and Jones Lang LaSalle research mentioned earlier bring to light who and how the consciousness of corporations falls on the shoulders of all actors that affect corporations--employees, consumers, suppliers, competitors and legislators. He said, “The question each of us [corporations themselves, consumers, suppliers, competitors and legislators] should ask is whether we are taking an aggressive enough position, given the rapidly approaching tipping point of this issue.”

One group that is taking an aggressive approach to corporate climate consciousness is the rising generation of business leaders. In November 2011 *The Harvard Business Review* published the findings of a survey of 500 MBA students that shows more corporations are probably heading in a conscious direction. Of the students surveyed, “64 percent agreed that the majority of corporations will support environmental sustainability and alternative energy over the next twenty years,” compared to “…just 29 percent of today’s CEOs.” The report said that these young and emerging leaders view business leadership quite different than their parents, seeing the world as smaller and more interconnected and share an inherent belief that as the next corporate leaders they must protect the planet from global warming.

**Climate Change Philanthropy**

Philanthropic giving is the final important indicator of behavior change in the post-*An Inconvenient Truth* era. Philanthropy is the act
of donating money, time, property or concern to social issues. And, philanthropy for climate change could be described as time or money, volunteering, community organizing, lecturing, etc. has grown more than any other environmental issue among individuals, businesses, universities, corporations, multilaterals, and international entities.

Philanthropy can be volatile during periods of economic uncertainty, like those of the recession that began in 2008 and continue today. An article in The Chronicle of Philanthropy by Elizabeth Schwinn said that climate change philanthropy kept pace with the increase as climate change dominated news headlines in 2006 and 2007. Schwinn wrote, “Charities both with and without a traditional environmental focus started to develop new ways to confront the issue and raise money in the process.”¹³¹ The Chronicle of Philanthropy’s 2007 annual report on philanthropic giving shows that giving even grew modestly in the first year after An Inconvenient Truth came out.

Universities, hospitals, community foundations, and other groups began taking on activities that show a commitment to climate change issues, which were previously reserved by traditional environmental groups. Schwinn reported, “They are seeking to create green space, make buildings energy-efficient, help people affected by global warming, and educate the public about climate change and environmental degradation,”¹³² a utilitarian perspective.

The trends show that usually philanthropic giving from middle and low income households are tempered by an unsteady economy, while, wealthy households tend to stay consistent in their giving due to financial security. Another report on the annual state of giving by The Chronicle of Philanthropy in 2008 reported that even with the onset of the recession when nonprofits are feeling the pinch, foundation giving for grants to fight global warming and related environmental problems rose from $100 million in 2000 to $850 million in 2008.¹³³
Also investment in climate change initiatives from bilateral and multilateral institutions, like the World Bank and the InterAmerican Development Bank, have risen since *An Inconvenient Truth*’s release. The Obama Administration worked with the U.S. Congress to scale up international climate finance appropriations, which in 2010 totaled $1.3 billion and in 2011 totaled $1.8 billion. This U.S. funding for climate change finance around the world goes through bilateral channels, principally through U.S. Agency for International Development (USAID), and targets the most vulnerable countries adapting to impacts of climate change and partners with these countries to mitigate emissions and adapt to the impacts of climate change. These dollars support scientific and technological advances, to generate economic growth, to improve governance and business management, to create the legal and regulatory environments needed to address climate change in developing countries and to build the capacity of individuals and institutions working on climate change in these countries.

While bilateral and multilateral funding for climate change action is rising, I want to acknowledge that it is not without criticism. The road to receiving and spending these funds and doing so effectively can be cumbersome and at times wasteful. For example, money that could be used on the ground is sometimes wasted on travel, food, logistics and conferences, i.e. the Conferences of the Parties (COP) international climate negotiations that require significant resources (energy, gasoline, power, food, transportation) and fossil fuels in the process, can detract from their actual purpose.

A survey in 2011 from the *Chronicle of Philanthropy* ranked the U.S. as number one in terms of giving [money donated to a charity, time volunteered, or helped a stranger in the previous month] in a list of 153 countries. At the same time, the June 2011 “Giving USA,” report from *The Chronicle of Philanthropy* said the slow economic recovery “… could spell
trouble for charity fund raising until at least 2016.” The report found that overall philanthropic contributions rose just 2.1 percent in 2010 after two consecutive in 2009 and 2008, the deepest drops in the history of the 56-year-old study by Indiana University’s Center on Philanthropy. Some of the non-monetary forms of climate philanthropy, including finds by a 2010 Gallup poll found more than three in four Americans recycle, have reduced household energy use, and buy environmentally friendly products yet it also found these numbers have barely budged since 2000. The change is prescient when compared against the release of An Inconvenient Truth in 2006.

The data from the first decade of the twenty first century shows all these behaviors increased or stayed the same; yet in the post-An Inconvenient Truth era two behaviors have over eighty percent of Americans say they are replacing standard light bulbs with compact fluorescent light (CFL) bulbs and using reusable shopping bags, both of which are fairly cheap and require little time or thought.

Philanthropic events, like concerts, competitions, school fundraisers, charity races, promoting climate consciousness have also surged in the post-An Inconvenient Truth era. The online modes of supporting such events, like blogging, tweeting and Facebooking, also represent philanthropy or time donated to the cause. For example, Live Earth, a worldwide concert on July 7, 2007, celebrated and attended by tens of thousands of people on seven continents and increased awareness through entertainment where attendees were encouraged to buy from businesses who share a commitment to solving the climate crisis. The event raised money and awareness about the urgency of climate change and had record numbers of people joining for a online video streams during the live concert.
Another notable philanthropic event was organized by 350.org, a U.S. based nonprofit building global grassroots movements to solve the climate crisis. In 2011 the group mobilized thousands of Americans on the White House lawn to urge President Obama to reinstall solar panels on the White House roof (which Jimmy Carter installed in the 1970s and his successor, Ronald Reagan, later removed).

The Climate Ride, started in 2009 by two American women, raises money, awareness and action for organizations working on climate change solutions. Participants ride their bikes down the East or West coasts of the U.S. and raise money to support climate-focused organizations. Since 2009, the group’s website says over 700 people have bicycled as Climate Riders down the East and West coast of the U.S. and raised over 1.5 million dollars for climate change solutions.

One Percent for the Planet is a philanthropic example of small and large for-profit businesses, from different industries, donating at least one percent of their annual revenues to environmental organizations worldwide, many of which support work to reverse and mitigate the impact of climate change. In the last six years, One Percent members companies raised over 30 million dollars for such work and more than two thirds of it was donated in between 2007 and 2009. One Percent member businesses use their brands and profits for good and to remind customers to use their own money to do the same—an ideal demonstrating a utilitarian spirit of valuing the collective good above all else. In an interview, one of the group’s founders, Yvon Chouinard of outdoor apparel company Patagonia, said if more companies did more in terms of philanthropy, environmental issues like climate change would be significantly helped:

If you could get business to understand that they have more responsibility than to maximize profits for the stockholders; that they have a responsibility to the planet; we all do; and the best way to do it is to just dig into your pockets and give the money away to the people willing to do the good work.
Even the philanthropic arm of technology giant Google established a program to improve the use of new media to communicate and share global warming data to help inform the public and climate change skeptics. Google says the initiative is motivated out of public service, “as [some] opinion polls show dwindling public concern about global warming, and as congressional Republicans seek to block the Environmental Protection Agency from regulating greenhouse gas emissions.”

Filmanthropy, a type of philanthropy in the post-*An Inconvenient Truth* era also is showing that support for climate change awareness. Ted Leonsis, the former owner of America Online (AOL), who coined the term, “filmanthropy” calls it “…investing money in movies with powerful social messages.” Participant Productions, which is financed by Jeff Skoll, founder of Ebay, funded *An Inconvenient Truth* and has fashioned a coveted reputation as a Hollywood filmanthropist. Jim Berk, the chief executive of Participant, said American audiences are flocking to such films, also, because believe the mainstream media in TV and print are so polarized and partisan that that their faith in the media, like documentaries that are filling that gap.

An article in the *Financial Times* on April 25, 2008 reported that *An Inconvenient Truth* joined the company of filmanthropy documentaries like Michael Moore’s *Fahrenheit September 11th* and *Bowling for Columbine*. The article reported, “An influx of money from wealthy philanthropic patrons has boosted the number of documentaries being produced…[and] new philanthropic money is part of the reason for the increase in documentaries.” Leonsis went on to say, "If you make a movie that's a hit and has a celebrity attached to it, it focuses public opinion on your story and you get to use [the film] as a platform for additional funding.” Donors recognize that filmanthropy brings creative, compelling and often large scale attention to issues that need attention, like climate change.
Conclusion

This chapter discussed the evolving opinions and behaviors of climate change in the U.S. since the release of *An Inconvenient Truth* and the direction that both may be headed. While skeptics may claim that America does not care about climate change any more than it did before the film’s release, the examples mentioned show changed minds and behaviors. In addition to willingness among Americans, neighbors around the world are upping the ante. Policymakers, students, business leaders and the public must remain enthusiastic and practical that even with already voluntarily steps to reduce emissions and lessen the impacts of climate change, a 2010 Gallup poll shows that the issue ranks very low on Americans’ policy priorities especially since late 2008, with the start of the recession.¹⁴⁵

It is hoped that the political, media, academic, corporate and philanthropic examples discussed encourage readers to consider the consciousness in motion and to inspire a greater conscience in them as individuals, employees, students, voters, entertainers, philanthropists and civil society wondering what can be done in their own lives.
CONCLUSION

Introduction

This thesis looked at if, how and why the documentary *An Inconvenient Truth*, released in the United States in June 2006, expanded the climate change dialogue in the and reignited an ethical purpose in the U.S. Before the film’s release, critics argued that tackling climate change had to be a tradeoff between science and politics; a tradeoff between what is right and what is cheap; a tradeoff between free will and self-control. The film put a new spin on the issue where that was no longer the case. *An Inconvenient Truth* suggested that the burdens of climate change are a *collective* responsibility of *all* human beings to respond to, on behalf of the greater good of the planet and the people, ecosystems and creatures on it.

In this thesis, the film’s message—humans are the cause of climate change but we can and must be the answer to the problems-- was compared to philosopher John Stuart Mill’s interpretation of utilitarianism, a philosophy where the outcome of an action is right if it offers greater happiness to the most and avoids the greatest harm. Chapter 1 looked at the history of the environmental movement in the U.S. Chapter 2 discussed events that coincided with the film’s release. Chapter 3 looked at the ethical style of the film’s message. Chapter 4 discussed the concrete changes in opinions and behaviors in the U.S. since the film’s release. And, this conclusion will use the lessons of the earlier chapters to suggest what direction the U.S. is headed and may need to take to continue to nurture this ethic.

It has been written that the *An Inconvenient Truth*’s message and how people latched onto it was an immediate success, while the style and attention of it was more of a secondary discovery. Using animation, photographs, statistics, experts’ opinions and a narrative by the film’s celebrity narrator, former U.S. Vice President, Al Gore, the film explains how humanity’s
burning of fossil fuels is causing the planet to warm and the climate to change—melting glaciers, raising sea levels, and worsening tropical storms and considers the moral responsibility of the issue. With anecdotes from Gore’s life as a college student, a brother and a father, it also invites viewers to see how Gore connected the science of climate change with the moral obligations to the places and people he loves—something that viewers can relate to, as well.

At the end of the film, Gore refers to a satellite image of planet Earth from outer space and summarizes this message. He says, “...it's our only home. And that is what is at stake, our ability to live on planet Earth, to have a future as a civilization. I believe this is a moral issue. It is your time to seize this issue. It is our time to rise again to secure our future.”1 Writer Adolfo V. Nodal says the film achieved what Gore was never able to do with all the speeches of his political career.2 Regardless of whether or not all the calculations in the film were exact, it is clear that it awakened emotions, unnerved the American spirit and inspired a generation of Americans to wake up.

The sticking power of the film and its message are interesting and historically important, especially in today’s world where the news cycle never ends and people are always online looking for a new story. The film was not the turning point for a new consciousness on climate change; however, like the book Silent Spring, published in the 1970s by scientist Rachel Carson which brought about massive public attention and later regulation for toxins, An Inconvenient Truth and the media buzz around it caused a change in tide where the dialogue evolved from a debate about the scientific proof and causes of climate change to a discussion about the responsibilities to pass legislation, change corporate practices and make lifestyle changes in order to address it.
After the film’s release, no longer was the science of climate change up for debate; no longer could Americans claim ignorance to their part in causing the planet to heat up; no longer were fossil fuels disassociated with rising temperatures, rising sea levels, dangerous levels of Carbon in the atmosphere or the intensity of recent natural disasters happening because of a warming planet; and, no longer were the causes, concerns or considerations to be marginalized only to those trained in the sciences or with liberal political tendencies; and no longer was the responsibility of climate change to be left to so-called experts.

While the U.S. remains one of the top worst emitters of greenhouse gas emissions (GHGs) and its varied demographics present varied degrees of change and motivation, this thesis proves that since the film’s release, Americans are changing their minds and starting to change certain behaviors. The changes are not nearly as dramatic as they need be but change is happening.

The examples mentioned in this paper remind us that there are small and meaningful changes taking place across the country that we do well to acknowledge and encourage in others. According to Tom Friedman, author of *Hot, Flat and Crowded* Americans are working together to keep each other accountable even if federal legislation is not yet able to:

> Student by student, school by school, teacher by teacher, neighborhood by neighborhood, the American Re-generation is growing and changing the culture around green, making it not only “hip” but also more central to our lives….

According to Box Office Mojo, the film stands as the ninth highest grossing documentary, to date, reportedly grossing $23.8 million. The book, under the same name, which was released slightly earlier than the film, reached number one on the *New York Times* bestseller list in July 2006 and for several months that followed. A few months after its movie theater debut in the U.S., it won two Academy Awards which upped the credibility and significance of the film.
And in 2007, Gore and the Intergovernmental Panel on Climate Change (IPCC), an international body of the world’s leading scientists, won a Nobel Peace Prize for “…efforts to build up and disseminate greater knowledge about man-made climate change, and to lay the foundations for the measures that are needed to counteract such change.”

The website for The Climate Project, a nonprofit established by Gore’s climate change leadership program, also estimates that the same slideshow made famous in the film, has been presented by volunteers at least 70,000 times and is estimated to have reached a combined global audience of 7.3 million people. Additionally in recent years, the rest of the world began to up the ante. According to a Washington Post article on July 22, 2011, “At least 85 nations have pledged to reduce greenhouse gas emissions or limit their growth by 2020 by shifting to renewable energy, increasing energy efficiency and protecting forests, among other efforts.”

What was once inconvenient has conveniently become harder to ignore. It is probably difficult to open a newspaper, turn on a radio station or walk into a public or professional space in most American cities now on a daily basis without hearing the words “climate change,” “global warming,” “mitigation,” “GHG emissions,” “carbon footprint,” or “Go green.” The responsibilities of climate change permeate nearly every part of American society and industry, competitor, consumer and constituent expectations are becoming more conscious whether by choice, pressure or regulation.

Annie Leonard, the author of Story of Stuff, mentioned in earlier chapters writes that millions of Americans are choosing to influence conversations and conscious practices, often the biggest hurdle to real change. She writes that, today, “Four fifths of Americans favor mandatory controls on greenhouse gases; nine-tenths of us want higher fuel efficiency standards; and three quarters want cleaner energy, even if they have to pay a little more for it.” And because of the
recent economic recession, “More Americans are relearning how to live within their means and save for the future... [And] More of our voting-age population turned out for the federal elections of 2008 than in any year since 1968.” We also know that more Americans are voting for politicians that are concerned about climate change and have green policy positions.

The data and information that the IPCC scientists publish is being translated into language not just the experts to understand but for Americans to adopt as an important part of one’s life and a crisis that could destabilize or unite the country — not unlike the civil rights movement of the 1960s. As mentioned in chapter 4, even the international Fortune 500 companies and the U.S. military are reducing their carbon emissions.

**What is Still Needed**

This thesis concludes with a cautiously optimistic tone that seems necessary. While it is clear that there has been an impressive “gear shift,” in the way Americans perceive and respond to climate change since *An Inconvenient Truth* advocated for it, there remains much to be done. In fact some of attention around the film actually proved counterproductive to addressing climate change, as well, as some of the film’s facts was presented in an alarmist way and with questionable statistics. According to Friedman, because Gore presented his facts “...in an intentionally alarming way... an enormous time and energy have been wasted debating Al Gore rather than climate change.”

The post-*An Inconvenient Truth* mindset is not just a matter of understanding the science but also reflecting on our business practices, our legislation and curbing our own lifestyles on behalf of the greater good; a time to consider if we are actually cutting back or just more knowledgeable about what we could do be doing. Aside from the policies that government and corporations can and must institute, the greatest responsibility rests on the shoulders of
Americans as individuals to examine who we are, how we are living, how we are leading our companies, schools, governments and raising our families - Are we using what we need or as much what we want? Are we refusing to change because it is too overwhelming, because we don’t understand how to, because we do not have the time and, or because we don’t think we count?

Often what we still hear is an airbrushed view of the climate crisis — a view endorsed by scientists, amplified by environmentalists and accepted by governments. The message is: “There is hope”; however by persisting in the belief that climate change is something most Americans are concerned with and incorporating into how they live and work, we overlook an unwillingness among many Americans not to connect the dots and not to confront the failure of the House and the Senate to pass federal climate legislation.

For a long time people were rejecting the idea that climate change was natural or human caused; and the latter was harder to accept because it entails behavioral changes and possible reductions in one’s quality of life—fewer cars per person, more walking, less consumption; etc. For example, the idea that we can treat what we do in the home differently from what we do on vacation denies related and complex lifestyle choices and practices. Once we crossed the point of admitting that climate change was happening, we then reached a slippery slope to accept that we have to fix our own behavior according to Friedman. He says:

The greatest environmental problem confronting us isn’t melting ice, faltering rain, or flattening oil supplies and rising gasoline prices. Rather it’s that when Americans ask, “What can I do to make a difference?” We’re [still] treated like children by environmental elites and political leaders too timid to call forth the best in us or too blind to that which has made us a great nation.10

The modern era of quick information and online answers has also left many thinking that experts will solve the problems and there will be a quick fix to which we will be able to get plenty
of energy and still live on a reasonably decent planet. In addition many are lead to believe that
having more things will make one happier. Leonard says it has been proven, however, that once
our basic needs are met, that a focus on getting more stuff actually undermines happiness.

This leaves many to think their individual contribution or restraint will not make a
difference, the anti-utilitarian sentiment—where individuals do not perceive themselves as having
a responsibility to others. We are still consuming too many fossil fuels and we remain conflicted
because of time, money, motivation, consumer temptation and social pressures compelling us to
ignore the regulation and change needed.

Unlike our European, Chinese and Australian neighbors who are ahead of us and tackling
climate change with aggressive legislation, national mandates and significant development of
renewable energy resources, the U.S. Federal Government is hesitant to act in ways that may
infringe upon freedoms that Americans hold dear—drastically raising gas prices and capping
GHG emissions. So drawing upon the examples of our European and Americans taking
aggressive action are more important than ever.

After the first decade of the twenty first century concern about climate change was much
less pervasive in the U.S., China and Russia compared to other leading nations. A 2011 study of
the “Public’s Political Agenda,” found that the majorities in 23 of 25 countries including the U.S.
agree with the statement, "Protecting the environment should be given priority, even if it causes
slow economic growth and some loss of jobs." It also found that in the U.S. and other countries
expressing concern over global warming today, there are widespread beliefs that sacrifices may
need to be made to protect the environment. Environmental law expert John Dernbach says, “The
decisions Americans make about sustainable development are not… simply decisions about the
environment. They are decisions about who we are, what we value, what kind of world we want to live in, and how we want to be remembered.”

Four Obstacles to Change

There are at least four major obstacles to major change on climate issues in the U.S. First, nationally, the decline in the middle class and stagnation in economic growth that will inevitably give momentum to more desire for development and renewed industrialization irrespective of environmental costs; second, the rise of a middle class throughout the developing world and with it, of course, demand for more goods and services, all of which again translate into increased environmental pressures of all kinds. Third, the national per capita demand for energy has remained constant since the 1970s. And fourth, the lack of federal limits on the amount of GHGs that corporations and institutions can emit. As was once done with chlorofluorocarbons after scientists discovered they were destroying the ozone; there is still a sizeable population especially in Congress and the Senate that fear such will impose expensive and frustrating regulations from the government, including higher energy prices. Regulation will help to limit the unsustainable rates of consumption in the U.S., as much of what is consumed is largely of no use to us and is not what we require to live well.

A 2008 USA Today article, “Green bandwagon is Getting a Big Push,” found “…there's strong evidence that behavior change is sparked by groupthink. If we see our neighbors as being more ethical in their actions that will prompt others to take green actions if they think others like them are doing it.” The same article went on to emphasize how important the examples around us are. Environmental psychologist Douglas McKenzie-Mohr said sharing these behaviors is something that has been applied to public health issues like smoking and we need to do that with respect to climate change; however, like training for a marathon, quitting smoking or adopting a
healthy lifestyle, changing our habits and practices does not happen overnight, all at once or simply inside the halls of Congress. And according to Law Professor Robert Illig, this is a reminder that as humans we will be inconsistent, continue to suffer setbacks and at times we will fail. He writes:

We must start to accept everyone who is hoping to make a difference whether fully on board with broad sweeping changes and even those not fully into them. Most importantly, the movement must avoid the easy tendency towards infighting. We’re going to have to circumvent the inclination to purge those who we think are simply not green enough. If Walmart’s managers want to improve their environmental record…we need to work with them…and not…dismiss them as unworthy pretenders.\(^{15}\)

The post-*An Inconvenient Truth* era is an open moment when people are thinking about and engaged in thoughtful discussions and solutions, yet still challenges of a recovering economy, military engagement in the war on terror in Afghanistan and a political climate gridlocked by partisan politics make some of the larger changes difficult to attain. As pointed out by Jennifer Doak’s in her Georgetown University thesis, “Today studies on global warming, such as those released by the IPCC, have to compete with issues like the war on terrorism, the economy, and healthcare concerns.”\(^{16}\)

Some scientists do not often highlight the changes taking place while others keep hope that things will and are changing as needed. Though there is big money being spent to study, publicize and combat the impacts of climate change and solutions to mitigate and adapt to those impacts, more funding and action is needed to support federal regulation that raises gasoline prices, subsidizes renewable energy infrastructure, expands public transportation systems, elects politicians and recognizes leaders that nudge America further and to publicize the good changes happening.

Illig says we also must become better about bearing our fair share of the responsibility which will also influence our carbon heavy counterparts, like China and India, to do more.
…we also have to work beyond outside our borders…reversing consumption and behavior is most critical even beyond our domestic borders. We need China and India to be on board and also start communicating and contributing equally to other the developing world and their view of climate change in the development and growth models around the world.\\footnote{17}

As compared to China, now the largest emitter in the world, Peggy Liu, chairwoman of the Joint U.S.-China Collaboration on Clean Energy, a nonprofit group working to accelerate the greening of China says, “There is really no debate about climate change in China [like there is in the U.S.],”\\footnote{18} because it “…is a practical discussion on health and wealth. There is no need to emphasize future consequences when people already see, eat and breathe pollution every day.”\\footnote{19}

To the extent that there are also opportunities in helping the U.S. and other nations grow sustainably, industry and individuals will follow. Another dilemma and reason for changing is not limited to the cars in the U.S., China or India but the real and reasonable desire of the world’s many impoverished people to get ahead—to feed and educate their children. For them, Friedman says, the goal is not to consume less of the Earth’s dwindling resources but to consume a great deal more. Their goals will increase their carbon footprint. As a result, any response to climate change, to be successful, must move us and the rest of the world forward, not backward.

Despite concerns about the rest of the world, the carbon-intensive lifestyle of the U.S. remains a stubborn and long-term challenge that will take increasing cooperation. This thesis takes the position that if we do not keep informing and encouraging the American public, as the film did, Americans will focus on other issues. The research also shows that it is important to applaud small victories rather than only pointing out what remains to be done. Without this, we may marginalize those trying and able to influence change and allow for cynicism and apathy. Illig writes that we must also remain patient and positive:

Most importantly even as the focus of the environmental movement shifts to include business, the law will continue to play an absolutely crucial role. If we shape the
regulatory and policy landscape properly, we can shape the response of business...We’re not going to roll over in bed one day and agree to turn back the clock to some version of pre-industrial Eden...change is extremely difficult, especially lifestyle change. People are fallible. Though we all strive to improve ourselves, we inevitably come up short. Moreover, our nation’s infrastructure may not be conducive to the rapid deployment of change, even if we as individuals were to demonstrate the necessary will.20

Nationally there must be a greater emphasis on conserving what we do not need to use, reusing and recycling what we do use, and relying on clean, renewable forms of energy and doing more with less--something challenged by the strong influence of consumerism and capitalism--similar to the mentality of the Great Depression and forcing industry, legislation and ourselves to change. Like many people around the world, most Americans are probably somewhat out of touch with what we see and feel in our nearby surroundings so the impacts of our transportation, vacation and food choices are tough to comprehend.

For some time, there was talk about the Environmental Protection Agency (EPA), responsible for environmental regulation, would weaken but that is probably not a major issue, especially after President Barack Obama’s reelection in 2012. While part of the country still denies the existence of climate change at all or its severity, it is emerging as a priority in politics, business, education and development as socially responsible, it is also unlikely to ever go back to the previous era of ignorance and denial before *An Inconvenient Truth*. There can be small attempts to reverse such a change, however after a genuine (ethical) shift occurs in how people think and act, like the reaction after *An Inconvenient Truth*, it is unlikely to go back. For instance, after passing women’s suffrage in the U.S., the U.S. would never again withhold the right for women to vote; after desegregating American schools in the 1960s, the U.S. it would never again be acceptable or to disallow people of different races the same opportunities in schools or elsewhere.
An analysis entitled, “American Climate Attitudes,” by The Resource Innovation Group (TRIG), a nonprofit focused on sustainability and global climate change education, published in May 2011 recommends that because decision making is not wholly based on science, “…emphasizing the moral responsibility we have as stewards in light of the needs of future generations may be as critical as improving science communication and education.”

Professor Illig’s research mentioned earlier affirms this as well, saying that “…the terms of the debate have begun to change. Just as there was once a moment when it became socially unacceptable to be identified as a racist, it is now becoming socially unacceptable to be anything other than green.” The fact that “…the climate changes over time is settled science.” It’s not that Americans were previously opposed to climate change solutions before the era ushered in by An Inconvenient Truth, it’s just that they were not aware of the consequences and the solutions. A Washington Post article from July 24, 2011 confirmed this when it said, “…there is, in fact, a lot that governments, business and individuals around the world can do—and are already doing—to cut back on heat-trapping gases and prepare for extreme weather.”

The research in this thesis also shows that things are not linear, too. For example, a 2011 Gallup research poll said for only the second time in more than two decades and the second straight year, a majority of Americans (53%) are more likely to say economic growth should take precedence over environmental protection when the two objectives conflict, rather than to say the reverse (38%). Therefore, if there is a correlation between the data and what Americans say they believe, like much of the rest of the world, once Americans feel more financially secure again, climate change may rise on the national agenda and move closer to align with the opinions we say we have.
During a recession long-term concerns, like mortgages, retirement plans and employment, often become short-term concerns and remind us that these things are real worries; when they fade away, again, we feel safe. Politicians, especially Republicans, now agree that climate change is happening and they are probably saying so because their constituency is saying so. While public behavior is difficult to predict, a George Mason study also found that “…it may be safe to assume that the economy will eventually improve, unemployment will decline, and Americans will again feel more secure addressing a problem still viewed by most as relatively distant.”

The reality is that global warming has never been a top national priority for most Americans, according to the TRIG report “…now…it tends to rank at the very bottom of the list of public policy priorities. In 2010, only about a quarter of Americans thought that global warming should be a top priority.” This is especially important when the gap between climate change and “…strengthening the economy, improving the job situation and defending against terrorism – has widened in recent years…despite attempts by climate leaders to tie global warming to the top issues of the day.”

The TRIG report goes on to say that “…global warming lacks a sense of relevancy for many Americans who do not see how this gradual and hard-to-see process is connected to their daily lives…” therefore “…most Americans favor dealing with more immediate issues over taking action on global warming.” For example in 2010 George Mason found that when asked the “Most Important Problem” question, respondents rarely mentioned global warming or the environment, but when asked to identify the most serious problem that will face the world in the future if nothing is done to stop it, global warming and the environment were the most frequently mentioned problems.
Therefore delivering the information in the right way to different decision makers—politicians, parents, business leaders, etc.—is critical. “Facts play an important role in informing people why they might want to act, yet the decision to act is ultimately an emotional one based on core values and is best supported through trusted relationships.” For instance, “While effective in stirring the emotions of those with environmental interests and sympathies…images of polar bears affected by global warming don’t necessarily help people connect the issue to their own lives….“ Using news connected to global warming, including extreme storms, to increase issue the priority is another recommendation from the TRIG report. It says, “Because national priorities shift over time, it is wise to determine how to weave global warming into a number of policy conversations while considering how those choices influence long-term global warming communication and outreach objectives.”

It also remains vital to continue to build the public’s basic understanding of the causes of global warming. The TRIG report recommends that “teachable moments,” like Hurricane Katrina and An Inconvenient Truth are best leveraged through the use of strong narratives that help people see the connection between current events, global warming, and their ability to make a difference. And because “…many Americans are still confused (a 2009 Public Agenda survey found that 52% of the public believed that ‘by reducing smog the U.S. has come a long way in addressing global warming’), the task of promoting support for relevant policy and technical solutions remains extremely challenging.” A timely example of this disconnect includes the public’s reactions to the Gulf Oil Spill of 2010 along the Louisiana, Alabama and Mississippi coastlines. Following the oil spill, public support for offshore oil drilling declined and interest in regulation increased, however four months after the spill, a Financial Times/Harris poll found that “…although two-thirds of Americans became more concerned about oil dependency, they
were not any more concerned about climate change.” \textsuperscript{36} Moreover, within six months of the disaster, support for expanding offshore drilling started to rebound, although it remained significantly lower than what it was before the spill.

In addition to scientists, the TRIG report says that spokespersons, like Gore, can continue to play beneficial roles communicating with the public about climate change according to research from Yale/George Mason in 2010.\textsuperscript{37} As trusted information sources, they help to improve public understanding of the causes, consequences, and potential solutions to climate change, and help lay the foundations for informed decision making in the future. The research found that people who aren’t inclined to pay close attention to an issue will learn about it from media outlets that reinforce their own social, political, or religious views.

On a policy level, the TRIG report also found that with the increasing concern about global warming and a slight drop of Americans in favor of climate-related policy solutions compared with the past few years, investments in clean energy sources and limits on greenhouse gas emissions are still popular policies with a majority of Americans, regardless of their views on global warming, including tax rebates for efficient cars and vehicle fuel efficiency standards. In addition, it found that a majority of Americans thought that oil and coal companies still have too much influence on Congress and believed that corporations have a significant responsibility for reducing global warming.

Whether cap and trade is popular or not with those who follow politics is really only part of the problem. The larger issue is that most Americans are not interested in engaging politically as a way to address global warming, even when the issue is a priority for them.\textsuperscript{38} Instead, research from Anthony Leiserowitz in 2010 shows that Americans are more likely to take action as consumers. For example, a majority of Americans in 2010 said that they were ready to make
lifestyle changes to reduce global warming, even if often the primary motivation for saving energy is saving money. Unfortunately, it is difficult for most people to navigate the many green consumer choices and grasp how purchasing decisions can solve such a complex global problem.

A 2010 Pew poll said many people have stopped believing the era of Federal commitments is in sight and instead question our collective values over a failure of commitment while also dramatically changing our lifestyles for the impacts needed. In *Hot, Flat and Crowded*, Friedman reminds us that the U.S. traditionally moves slower on issues that European countries don’t talk about anymore, like how religion influences government, so it is not surprising that we are behind on climate change, too. We also have lessons to learn from our global neighbors, including Australia, Europe, and even China. Much of the rest of the developing world lives on far less resources and fossil fuels per day. A recent *Washington Post* article discussed five myths around gasoline and said the last and probably most culturally important is that, “Yes, Americans love to drive, and Americans love cheap gas. But across an ocean, there’s a continent filled with people a lot like us who’ve lived with high gas prices for years. They’re called Europeans.” And they are just as happy, if not more so than us. At one time Australia and the U.S. were the only two nations not to have signed the Kyoto Protocol. Then in November 2011 Australia passed a national carbon tax which will tax anything that contributes to carbon pollution. China even has instituted carbon caps and car caps.

While we continue to consume and emit GHGs at rates disproportionate to much of the rest of the world, this thesis proves that encouraging companies, governments and ourselves to consume less, be more resourceful, reuse what we have and seek out clean, renewable energy sources, will persuade the utilitarian mindset encouraged in *An Inconvenient Truth*. Whereas, talking about obstacles creates obstacles; talking about solutions encourages solutions.
The TRIG report also found that most Americans are, in fact, worried about climate change, but do not in fact know what to do about it. And to the extent people cannot solve a problem, they tend to ignore the problem. So talking about climate change as an issue of today, therefore, rather than the future, is helpful; using tangible examples of how the climate impacts human well-being and communicating the benefits of policy and behavior change solutions will help, too; and passing statewide and federal regulation to influence larger systemic and regulatory change and for politicians and practitioners to push global warming is urgent.

If public pressure continues, the organizations and companies we work for, the schools we study in and the children we raise will make America a leader in dealing with climate change. Perhaps the U.S.’s commitment to the outcome of the Durban climate negotiations in 2011, where countries commit to targets that will be established by 2015, and Obama’s reelection are even stronger incentives for Congress and the Senate to finally cooperate with the rest of the international community and pass national climate regulation. If the Durban efforts to develop a new agreement by 2015 are successful, it will be a turning point in tackling one of the greatest challenges of our time.

The years before An Inconvenient Truth presented far more barriers to change than exist today. Even eco-visionary Paul Hawken told the 2009 University of Portland graduating class that he is optimistic.

If you look at the science about what is happening on earth and aren’t pessimistic, you don’t understand data. But if you meet the people who are working to restore this earth and the lives of the poor, and you aren’t optimistic, you haven’t got a pulse.

A Personal Note

Personally, I experienced a change of heart, as many other Americans did, after seeing An Inconvenient Truth in 2006. The film posed a great moral question: Do I walk away after learning
about the causes and urgencies of climate change? Or, do I do something about what I now understand is a serious but solvable problem? In *Hot, Flat and Crowded*, writer Tom Friedman wrote, “… Al Gore, a politician, became the global figure to popularize the threat of climate change [which] is itself a revealing tale…”

People can read and write the reports telling them how serious climate change is, but in this age of relentless information and visual storytelling, a film can change the way people think and act and month after month using research and talking about this paper I have come to believe this is truer than when I first read it. It did, for me and perhaps for some of the examples mentioned in this thesis. Environmental filmmaking company, Epicicity, says in order to get someone to care about a place or an issue that they’ve never been, or may never visit, you show them. “You have to give them that sense of place…Sometimes it just takes a change in perspective to see that it’s not worth it. It’s not worth the risk. We have too much to lose. And too much to save.”

Before seeing the film I thought of myself as somewhat environmentally conscious; someone who cared and read about environmental issues, recycled, spent time in wilderness because I appreciated it. At the same time I probably continued to consume the same amount of fossil fuels and resources as any uninterested or uninspired American. Since seeing the film I began a career in environmental conservation in 2008 and because of the film I dedicated three years of research and writing for this thesis. With each bit of research, conversation or friend I have met because of this paper, I have felt inspired to make changes in my lifestyle that favor a greater conscientiousness (biking more, eating a primarily vegetarian diet, using less plastic and synthetics, voting for climate conscious politicians, supporting conscious companies, engaging friends, family and colleagues and encouraging them to affect change).
Just as a light went off for me in a Washington, D.C. movie theater when I saw the film, the stories and data mentioned here show that millions of other Americans have and want to become more part of the changes needed. There are committed Americans and there also those committed to ignoring the science. On some days I know I could be doing much more. It is too easy to alienate those that feel they are clueless or without time or money to make a positive impact on the enormity of climate change. With the knowledge and humility acquired in this process, I realize more than ever, life is about sharing what we know, what we learn even when others are not asking. There are so many people and organizations in the U.S. today doing their best and taking steps small and large.

So, living in the post- An Inconvenient Truth should be about sharing solutions and inviting one another to work with each other; celebrating advances no matter their size and pushing ourselves, our families, our offices, our policymakers to do more than we think we are capable of; and even more than that, for rethinking what it is we need to live and to live well—not as much as we think.

The Georgetown University’s Master’s of Liberal Studies (MALS) program is focused on ethics and morality and encourages students to lead examined lives and to discover their own values in order that they may contribute positively to the world. Though we have more information and easier access to it than ever before, the pace of life and enormity of so many challenges often leave little time to consider the purpose and or the ethical motivations of our lives.

I am grateful to the MALS program for giving me the time, space and opportunity to consider important many ethical questions when I was beginning my adult life and learning the impact and direction I could have on the world and the people around me. The MALS program
and this thesis allowed me to indulge in time, existing research and thought to develop these opinions for myself. I hope that the thoughts and research mentioned here inspire more Americans, both interested in and skeptical about the difference one person can make. One might undoubtedly surprise the world just as Gore did. In *Hot, Flat and Crowded*, writer Tom Friedman wrote, “… Al Gore, a politician, became the global figure to popularize the threat of climate change [which] is itself a revealing tale…”

In the book *Shooting in the Wild* wildlife filmmaker Chris Palmer remembers a childhood memory which serves as a perfect analogy for the impact and potential set of *An Inconvenient Truth*:

*Truth:*

When I was growing up in England after World War II, we still had rationing. Butter was in very short supply, though there was plenty of milk. My father used to make me stand in the yard and shake a heavy bottle of creamy milk. My arms would start to ache painfully, but as I watched the milk sloshing around, a miraculous thing happened. Butter would suddenly appear, seemingly out of nowhere. Every shake of the bottle got me closer to the butter.

Even if policy has not yet kept pace, we *are* heading on a greener path than before the film was released. Climate change is still an issue of lesser importance and urgency to many Americans but every shake of the proverbial bottle brings Americans closer to treating the planet with the conscience it needs to be treated with. “It won’t be easy but even the best endeavors need shaking up from time to time,” says Palmer. Palmer goes on to write that “…green can no longer be dismissed as…some leftist fringe element that wants to take us back to the Stone Age. Rather, it is now part of the mainstream culture. The vocabulary of the national conversation is changing, and hearts and minds will follow.” That is reason to keep shaking the bottle and encouraging one another to think about the collective responsibility of climate change.

The U.S. was the first country to formally create protected areas through the national parks, an environmental success story that has grown over the last 250 years and been replicated
all around the world. The economic recession may be one of the better things to have happened to
the U.S. since the Great Depression in terms of reevaluating what we need to live happy, healthy
lives and what we don’t need. It is often said that the Great Depression mentality never left the
generation that grew up with little and had to conserve much-natural resources, food, clothes, and
other possessions. Perhaps the same will be the same for the post-An Inconvenient Truth
generations.

It is simply not an option for those us in the wealthy countries to refuse to reevaluate our
consumption patterns: the planet is in crisis, we’re not sharing fairly, and it’s not even
making us happy. Here’s an alternative scenario: we realize that things have got to
change, because the previous scenario isn’t the world we want.37
Endnote List

Preface


Introduction


Chapter 1


12 Smith and PBS, “Heat: A Frontline Program.”


15 Ibid.

16 Ibid.

17 Smith and PBS, “Heat: A Frontline Program.”


19 Ibid.


23 Smith and PBS, “Heat: A Frontline Program.”


Chapter 2

150


4 Ibid.


7 Ibid.

8 Ibid.


10 Ibid.

11 Ibid.

12 Pew Research Center, “Two-In-Three Critical Of Bush's Relief Efforts.”


14 Allen and Doherty, “What Was--and Wasn't on the Public's Mind.”

15 PBS, “Frontline: Hot Politics.”


23 Pew Research Center, Data Bank, “Key Data Trends.”


25 Ibid.

26 PBS, “Frontline: Hot Politics.”

27 Ibid.


29 Ibid.


Ibid.

Ibid.


Ibid, 3.


Chapter 3


3 Ibid, 6.


7 Ibid.

8 Ibid.
9 Sofia Kalormakis de Kosmas, “El Paladín Ambiental: Al Gore, Champion of the Enviornment,” 

10 An Inconvenient Truth, DVD (Los Angeles, CA: Lawrence Bender Productions and Participant 
Productions, 2007).


12 An Inconvenient Truth, DVD (Los Angeles, CA: Lawrence Bender Productions and Participant 
Productions, 2007).

13 The Online Gadfly website, “Topics in Environmental Ethics,” quoted from Environmental 
topic.htm#note editor (accessed February 13, 2011).

14 Terrence Reynolds, Western Philosophical and Religious Perspectives, 6.


17 An Inconvenient Truth, DVD (Los Angeles, CA: Lawrence Bender Productions and Participant 
Productions, 2007).

18 Ibid.

19 Ibid.

20 Ibid.

21 Ibid.

22 Ibid.

23 Ibid.


25 An Inconvenient Truth, DVD (Los Angeles, CA: Lawrence Bender Productions and Participant 
Productions, 2007).

26 Ibid.

27 Ibid.

28 Ibid.
29 Ibid.

30 Ibid.

31 Ibid.

32 Ibid.

33 Ibid.

34 Ibid.

35 Ibid.


38 Ibid.


43 Alex Steffen, “Interview: Davis Guggenheim and ‘An Inconvenient Truth,’” World Changing: Change Your Thinking website.


44 Ibid.
Chapter 4


3 Ibid.


5 Ibid.


10 Ibid.


13 Ibid.

15 Ibid.

16 Ibid.


22 Ibid.


25 Ibid.


27 Ibid.

28 Ibid.

30 Ibid.

31 Ibid.

32 Newport, “Americans' Global Warming Concerns Continue to Drop.”

33 Ibid.


37 Ibid.


40 Ibid.


42 Ibid.

43 Ibid.


45 Richard Harris, “Ahead Of Climate Talks, U.S. Leadership In Question.”


Ibid.


David Fahrenthold, “Are U.S. homes more energy efficient? Not exactly.”

Ibid.

Ibid

Ibid


Ibid.


Ibid.

Ibid.


66 Lauren Feldman, Matthew Nisbet, Anthony Leiserowitz, and Edward Maibach, “The Climate Change Generation: Survey Analysis of the Perceptions and Beliefs of Young Americans.”


68 Ibid.

69 Ibid.


71 Ibid.


73 Ibid.

74 Ibid.

75 Ibid.

76 Ibid.

77 Jillian Berman, “College Students are Flocking to Sustainability Degrees, Careers,” USA Today.

78 Ibid.


Ibid.


Ibid.

Ibid.


Ibid.


Ibid.

Ibid.


Susan Casey, “Blueprint for green business.”


Yvon Chouinard, Let My People Go Surfing, 74.

Ibid, 212.

Ibid.

Susan Casey, “Blueprint for green business.”


Ibid.

Ibid.


Ibid.

111 “The Corporation,” Big Picture Media Corporation.

112 Ibid.

113 Ibid.

114 Ibid.


116 Ibid.


118 Ibid.

119 Ibid.

120 Ibid.


123 Ibid.

124 Ibid.


127 Ibid.
128 CFO Research and Jones Lang LaSalle, “The Role of Finance in Environmental Sustainability Efforts.”


132 Ibid.


134 Ibid.


136 Ibid.


139 Ibid., 13:45.


Conclusion


8. Ibid.


10. Ibid., 405.


12. Friedman, Hot, Flat and Crowded, 404.

14 Ibid.


17 Ibid.


19 Ibid.

20 Ibid., 228.


22 Illig, “Al Gore, Oprah, and Silicon Valley: Bringing Main Street and Corporate America into the Environmental Movement,” 234.

23 Ibid.


27 Ibid.

28 Ibid.

29 Ibid.
30 Ibid.
31 Ibid., 10.
32 Ibid., 12.
33 Ibid., 14.
34 Ibid.
35 Ibid., 15.
36 Ibid.
37 Ibid.
38 Ibid., 21.


41 Friedman, *Hot, Flat and Crowded*, 115.


43 Ibid.


45 Ibid.

46 Ibid., 229.

BIBLIOGRAPHY

Afghanistan Coalition Deaths by Year,” iCasualties website.  
http://icasualties.org/OEF/ByMonth.aspx.


American College & University Presidents’ Climate Commitment. “American College & University Presidents’ Climate Commitment Program Overview.” 2006.  
http://www2.presidentsclimatecommitment.org/pdf/program_overview.pdf.


CCC Legacy website.  


   http://www.esrl.noaa.gov/csd/assessments/ozone/2006/chapters/contentsprefaceexecutive
   summary.pdf.

Nudd, Tim. “Ad of the Day: Patagonia. The brand declares war on consumerism gone berserk,
and admits its own environmental failings.” AdWeek website, November 28, 2011.

The Online Gadfly website. “Topics in Environmental Ethics,” Section Introductions
   from Environmental Ethics: Approaches and Issues, An Unpublished Textbook


Pew Global Attitudes Project. “Global Warming Seen as a Major Problem Around the World,”
   around-world-americans-less-concerned.

Pew Research Center for the People & the Press. “Economy Dominates Public's Agenda, Dims

   priorities-president-congress-2010.

   over-global-warming.

---, “Bush and Public Opinion: Reviewing the Bush Years and the Public's Final Verdict.”

   http://pewresearch.org/databank/dailynumber/?NumberID=12 “Key Data Trends.”
   http://pewresearch.org/databank/keytrends/.

---, “Two-In-Three Critical Of Bush's Relief Efforts.” September 8, 2005. http://people-

   over-global-warming.


Schwinn, Elizabeth. “Growing Number of Charities Bring the Environment Into Their Appeals.” The Chronicle of Philanthropy, November 1, 2007. http://philanthropy.com/article/Growing-Number-of-Charities/61060/?otd=Y2xpY2t0aHJ1Ojo6c293aWRnZXQ6OipjaGFubmVsOm5ld3MsYXJ0aWNsZTpjaGFyaxR5LWdvZXMtZ3JlZW46OipjaGFubmVsOm5ld3MsYXJ0aWNsZTpncm93aW5nLW51bWJiL1ciL1jaGFyaXRpZXMyJpmbmctGhlLVVudmlyb2tvZW50LWhudG8tdGhlaXltbXJybXBwZWFscw==.


