

Mitigating Climate Change: Greenhouse Gas Emissions and Attorney Efforts at Federal, State and Local Levels

By Kiren Jahangeer

Climate change is a term that evokes polarizing reactions. Many people don't grasp the severity of the problem and some people don't believe that it's occurring. Yet the vast majority of experts agree that climate change is the largest, most critical problem facing humankind today.

Attorneys at the federal, state and local level are engaged in efforts to combat climate change by reducing greenhouse gas (GHG) emissions. However, without a national policy dedicated to this cause, they face an uphill battle, and swift action must be taken in order to preserve the planet for future generations.

Overview

GHGs, specifically the release of carbon dioxide (CO₂) into the atmosphere, are the most damaging, human-induced causes of global warming. Most of these GHGs are the result of burning fossil (or carbon-based) fuels like coal, oil and natural gas to produce energy. Industrial processes, agricultural practices, and deforestation also emit gases into the atmosphere. GHGs function as a blanket around the planet by trapping energy in the atmosphere and causing it to warm up.

As the temperature on the planet continues to rise at unprecedented rates, faster than any changes that have occurred in the last 10,000 years, the planet becomes more and more inhospitable.¹ The Greenland and Antarctic ice sheets have been shrinking, causing the global sea level to rise. As the polar ice caps melt, the oceans retain more water. As the ice caps degrade, more sunlight is absorbed into the ocean surfaces, causing more warming and melting of ice and snow — in a deadly cycle.

The effects of climate change are readily apparent. Extreme weather patterns have resulted in destruction of homes, loss of crops, employment declines and higher insurance premiums. Climate change will continue to increase the risk of infectious disease and respiratory illness, adversely affect agriculture and water supplies, create food insecurity, hasten species extinction, and also threaten national security. Damage in coastal areas, home to 53 percent of the country's population, will continue to be more severe.² Poorer communities will be at higher risk of the consequences of climate change: heat waves, floods, storms, fires and droughts.

Current U.S. Policy

The Clean Air Act was passed in 1970 and required the Environmental Protection Agency (EPA) to establish national ambient air quality standards for specific common and widespread pollutants.³ The EPA was also granted the authority under the act to limit emissions of air pollutants from sources such as chemical plants, steel mills and utilities. In August 2015, the EPA announced that it had created the Clean Power Plan, submitted under the Clean Air Act.⁴ This plan aims to implement GHG emission guidelines for existing fossil fuel-fired electric generating units, but it will not go into effect for several years and most likely will be challenged.

Internationally, the Kyoto Protocol was established in the 1990s,⁵ requiring developed countries to reduce their GHGs over a 15-year period.⁶ The United States never ratified the protocol and many experts agree that it has resulted in no environmental improvements.

In 2015, the United States submitted to the United Nations (U.N.) a proposal for a new climate action plan.⁷ In November and December of 2015, the United Nations held a climate change conference in Paris to discuss strategies. Whether much progress was made in Paris is still to be determined. Recent headline news, however, has highlighted the fact that no law, regulation or treaty will completely solve our problems, especially if companies cheat.

NYC Climate Change Museum a Work in Progress

Miranda Massie, a lawyer by trade, is trying to inspire solutions into this global problem in a unique way. She is now the director of the first climate change museum in the country, to be opened in New York City. Kirk Johnson, director of the Smithsonian's National Museum of Natural History, admits that "he has never seen any museum, including his own, address climate change effectively."ⁱ The New York Board of Regents granted a provisional charter for this museum on July 20, 2015. Massie shared her vision for this grand venture:

Two things moved me to launch the Climate Museum initiative and to leave behind fulfilling roles as a civil rights and environmental litigator and a nonprofit law executive. The first is my conviction that climate change is the greatest and most urgent challenge we face. And second, attorneys across the country are engaged in an outstanding array of efforts on climate change mitigation and adaptation, using litigation, policy analysis and legislative drafting to reduce the risks and enhance the opportunities ahead. What we need equally but don't yet have is a broad-based public educational effort — and that's the gap the Climate Museum aims to fill.ⁱⁱ

Massie added that "[o]ur vision for the Climate Museum centers on a central aspiration: to maximize community engagement with climate solutions."ⁱⁱⁱ

With location and funding issues still undecided, the museum is in its conception stages and likely several years away. Massie hopes to have a pop-up exhibit next summer on Governors Island. More information can be found at www.climatemuseum.org.

i. George Marshall, Don't Even Think About It: Why Our Brains Are Wired to Ignore Climate Change 102 (2014).

ii. Interview with Miranda Massie, October 26, 2015.

iii. Id.

Mitigation Efforts at the Federal Level

Any policy or law will be useless if those who flout it can get away with it. The EPA and the Department of Justice are the primary agencies for enforcing GHG regulations and laws.

In November 2014, the EPA reached a landmark settlement with Hyundai and Kia Motors, which were forced to pay a \$100 million civil penalty for Clean Air Act violations due

to the sale of nearly 1.2 million vehicles that will emit 4.75 million metric tons of GHGs in excess of what they certified to the EPA.⁸ Evan M. Belser, chief of the Mobile Source Enforcement Branch and lead counsel for the Hyundai-Kia case, explained that the case targeted the automakers' misstatement of their vehicles' GHG emissions. The case turned on a vehicle attribute known as 'road load force.' This is the total force encountered by a vehicle by reason of motion on a level, smooth surface. Hyundai-Kia didn't accurately measure road load force, and EPA's investigation showed that noncompliance caused the companies to understate GHG emissions and enjoy substantial economic benefit.⁹

Belser added that "the vehicles subject to the Hyundai-Kia case will emit approximately 4,750,000 metric tons of GHGs in excess of what the automakers certified over the lifetime of the vehicles."¹⁰

The EPA is also investigating Volkswagen due to software in its diesel cars that circumvents U.S. emissions testing equipment. Although the notices of violation from the EPA were related to nitrogen oxides rather than carbon dioxide, nitrogen oxide is considered an "indirect greenhouse gas" and has been linked with a range of serious health effects, including increased asthma attacks and other respiratory illnesses. With potential fines in the billions,¹¹ the EPA said in November of 2015 that it has already implemented testing for all diesel-powered vehicles using updated procedures to detect so-called defeat devices.¹²

The investigations, legal actions, monetary impact and significant media coverage surrounding these cases will hopefully serve as an incentive to car manufacturers and others to play by the rules.

State-Level Action

Due to the lack of a national policy on GHG reduction, some states have taken the problem into their own hands and have agreed to fight collectively. Many experts consider industry's release of CO₂ emissions into the atmosphere as using a valuable resource (clear air) without incurring any cost to the industry. This has allowed the industry to consider the air as a free zone where emissions and pollutants can be dumped with no consequences. To that end, the Regional Greenhouse Gas Initiative (RGGI (pronounced Reggie)) was proposed in 2003 by nine states: Connecticut, Delaware, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island and Vermont; Maryland added its support in 2007, but Governor Chris Christie withdrew New Jersey from participating in this initiative in 2011.¹³ RGGI's board of directors meets via quarterly conference calls that are open to the public. Information is available at www.rggi.org.

William Lamkin, environmental engineer for the Massachusetts Department of Environmental Protection, explained that RGGI is the first market-based trading system in the nation (cap, trade, and invest) for CO₂. The program addresses CO₂ emitted from the electric generating sector. Under the program, the states establish an overall annual limit on the quantity of CO₂ that can be emitted from power plants in the region (the cap). Each year, the states distribute allowances in a quantity equal to the regional cap. An allowance is a limited authorization to emit one ton of CO₂. Fossil fuel-fired power plants covered under the program are required to obtain and surrender one allowance for each ton of CO₂ that they emit during a specified time frame. Under RGGI, CO₂ allowances are sold by the states in quarterly auctions. The states then invest those auction proceeds in activities that reduce CO₂ emissions (such as

investment in end-use energy efficiency and/or renewable energy projects). Covered sources can obtain allowances at the auctions or through active secondary markets. Allowances can be freely traded between sources and other market participants.¹⁴

Lamkin added that despite documented success, cap and trade systems still have to overcome “the perception that emission reductions will lead to negative economic impacts and will interrupt electric system reliability. However, seeing significant emission reductions, with positive economic impacts to the region, has been very rewarding.”¹⁵

In 2007, the Supreme Court in *Massachusetts v. EPA* determined that GHGs are considered an air pollutant under the Clean Air Act.¹⁶ This decision gave cap and trade systems like RGGI a stronger legal foothold and helped RGGI survive several legal challenges. Mary Raivel, former assistant attorney general who represented the Maryland Department of the Environment, said that legal challenges are a distraction and draw resources away from implementing the program. “Maryland enforces EPA’s greenhouse gas regulations in our state, and any challenges to those regulations can delay or impair MDE’s ability to implement and enforce those regulations.”¹⁷

Katie S. Dykes, deputy commissioner for energy at the Connecticut Department of Energy and Environmental Protection, said that “independent research shows that multi-state, market-based initiatives like RGGI are actually one of the most cost-effective ways to bring about pollution reductions.” She added that states have banded together effectively to reap the benefits of multi-state coordination. States have individual discretion over how they invest RGGI proceeds, which allows them to tailor their investments strategically to what will work best in their state. Some states lean toward energy efficiency, others to areas like clean and renewable energy, greenhouse gas abatement, or direct bill assistance.¹⁸

Getting Involved Through Your Bar Association

Lawyers can help professionally in the following ways:

- (1) Asking bar associations to pass resolutions calling for immediate government action on climate change.
- (2) Holding educational programs about the problem of climate change.
- (3) Signing the petition at www.calltothebar.org.
- (4) Spreading the word among friends and family through social media.
- (5) Talking to elected officials about the need for a solution to the problem of climate change.

Go to www.calltothebar.org for more information.

Washington State’s Efforts

Although not a member of RGGI, Washington state has reduced GHG emissions in the transportation and power sector by enacting California’s GHG emission standards for motor vehicles and adopting performance standards, renewable portfolio standards and carbon–mitigation requirements for power plants. Leslie Seffern, a Washington state assistant attorney general in the Ecology Division, said that Washington required the Centralia Coal Plant, the

largest single source of greenhouse gas emissions in Washington, to effectively shut down one of its coal boilers by 2020 and the second one by 2025, unless the boilers can be converted to achieve a performance standard associated with the burning of natural gas. Washington has enacted statewide greenhouse gas emission reductions to limit emissions by designated amounts in future years: (1) to 1990 levels by 2020, (2) 25 percent below 1990 levels by 2035, and (3) 50 percent below 1990 levels by 2050.¹⁹

Seffern noted that “when there is consensus on the environmental problem and on the solution, decisive action can be taken to address the problem. Without consensus, every action that tries to make progress is challenged, and the time spent defending the action hinders work on formulating and implementing solutions.”²⁰

What Can You Do?

Lawyers can help personally in the following ways:

- Reduce meat consumption.
- Abstain from using water bottles, straws and other plastic products.
- Recycle as much as you can.
- Use reusable bags when you shop.
- Grow your own vegetables and fruits.
- Compost.
- Don't smoke.
- Plant trees.
- Think twice before you print out that email, memo, or document.
- Turn off your computer and lights when you leave the office for the day; the same goes for when you are not at home.
- Unplug appliances when you are on vacation.
- Travel in fuel-efficient vehicles, carpool whenever you can, and telecommute if possible.
- Buy an electric car. According to NASA, hybrid cars are not that different from standard gasoline powered cars, but electric cars make a real difference in the amount of CO₂ produced.
- Use more efficient electrical appliances to reduce CO₂ emissions.
- Use energy-efficient light bulbs, open windows to regulate the temperature in seasons when this is feasible, and hang clothes to dry when you can.

Extra benefit: All of these efforts will also save money.

Involvement of Local Attorneys

Attorneys are also trying to effect change at the local level. Since urban areas generate over 70 percent of global GHG emissions, the efforts of cities to mitigate effects of CO₂

emissions are crucial.²¹ Glenn Klein, Eugene city attorney in Oregon, worked on the creation and adoption of the city's climate recovery ordinance. The ordinance:

- Codifies the City's existing international and community climate goals.
- Requires an assessment of current efforts to gauge progress toward existing goals. Directs staff to develop a science-based community greenhouse gas reduction to achieve 350 parts per million CO₂, the level deemed "safe" by client scientists.
- Requires consistent monitoring and reporting to track progress toward established climate goals.
- Creates a mechanism for getting back on track if the City is not meeting its greenhouse gas reduction targets.²²

The development of a city-wide food waste composting program, electric vehicle charging infrastructure in strategic public and private locations, an expanded bus transit system, an extensive bicycle network with bike lanes, and the installation of solar electric systems in an increasing number of households are just some of the efforts already under way in Eugene.²³

Bar Association Work on Climate Change

The American Bar Association passed a resolution in 2008 urging the U.S. government to take a leadership role in addressing climate change; the Philadelphia Bar Association did as well.²⁴ Other ABA entities are raising awareness through webinars, publications, committee work and online resources.

In 2014, Steve Harvey founded *A Call to the Bar: Lawyers for Common Sense on Climate Change*, a campaign to "help in the fight against th[is] alarming and undeniable problem ... [which] is the most important and probably the most difficult issue facing humankind."²⁵

Harvey drafted the successful resolution for the Philadelphia Bar Association demanding government action on climate change and organized an educational program featuring prominent climate scientist Dr. Richard Alley.

These efforts helped to convince many lawyers and law students in Philadelphia about the need for the legal community to play a leadership role on climate change. We are trying to enlist the support of lawyers (including law students) and bar associations everywhere for immediate government action on climate change.²⁶

Harvey also emphasizes the need for a national policy, something that a majority of economists including many conservative economists endorse as a free market solution to (1) reduce CO₂ emissions and (2) stimulate economic growth in alternatives to fossil fuels. We are also going to need a strong international accord. But the biggest challenge, and the thing we need to make it all possible, is public support. That's why the support of the legal community is important.²⁷

Conclusion

Notable conservatives George Shultz, former secretary of state under Reagan; Henry Paulson, Jr., Treasury secretary under George W. Bush; and Dr. N. Gregory Mankiw, professor at Harvard University and former adviser to President Bush, have all called for action

toward reducing GHG emissions. Religious leaders of many faiths have spoken out about climate change. Pope Francis issued an encyclical in January 2015 urging immediate action.

Climate change is truly a bipartisan, global issue that needs immediate, serious attention. The efforts that public lawyers have made at all levels have made a difference. Some states, for example, have their own regulations and specific policies in place. However, without a nationwide stance, true solutions cannot come to fruition; scattered regional efforts will not have the wide-scale impact that is needed. Fortunately, some progress is being made on a broader front. With the EPA's new Clean Power Plan and the recent U.N. Framework Convention on Climate Change in Paris, perhaps climate change is finally being viewed as a significant issue.

All of these steps are worthwhile, but changes in policy are moving much more slowly than climate change itself. As experts have noted, the time to act is now. Actually, the time to act was yesterday.

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Endnotes

¹ WILLIAM NORDHAUS, A QUESTION OF BALANCE: WEIGHING THE OPTIONS ON GLOBAL WARMING POLICIES 3 (2008).

² AM. BAR ASS'N REPORT 109 (adopted by House of Delegates Feb. 11, 2008), available at www.americanbar.org/content/dam/aba/directories/policy/2008_my_109.authcheckdam.pdf.

³ Clean Air Act, 42 U.S.C. 85 (1970).

⁴ Clean Power Plan, 80 Fed. Reg. 64, 662 (Oct. 23 2015); see www.gpo.gov/fdsys/pkg/FR-2015-10-23/pdf/2015-22842.pdf.

⁵ Kyoto Protocol to the United Nations Framework Convention on Climate Change, U.N. Doc. FCCC/CP/1997/7/Add.1 (Dec 10, 1997), 37 I.L.M. 22 (1998).

⁶ NORDHAUS, *supra* note 1, at 18.

⁷ See <http://newsroom.unfccc.int/unfccc-newsroom/united-states-submits-its-climate-actionplan-ahead-of-2015-paris-agreement>.

⁸ Consent Decree, United States v. Hyundai Motor Co. & Kia Motors Corp., Case No. 1:14-cv-1837 (D.C. Cir. 2014).

⁹ Interview with Evan M. Belser, Chief of the Mobile Source Enforcement Branch, EPA Headquarters, Washington, D.C. (Sept. 10, 2015).

¹⁰ *Id.*

¹¹ Volkswagen could face fines of \$37,500 per vehicle in the United States. With around 482,000 of its diesel vehicles sold in the United States since 2008, this could mean a penalty of approximately \$18 billion. Timothy Garner & Bernie Woodall, *Volkswagen Could Face \$18 Billion Penalties from EPA*, Reuters, Sept. 18, 2015.

¹² See <http://yosemite.epa.gov/opa/admpress.nsf/21b8983ffa5d0e4685257dd4006b85e2/4a45a5661216e66c85257ef10061867b>.

¹³ MICHAEL B. GERRARD & JODY FREEMAN, GLOBAL CLIMATE CHANGE AND U.S. LAW, 275 (2014).

¹⁴ Interview with William Lamkin, environmental engineer, Massachusetts Department of Environmental Protection (Sept. 10, 2015).

¹⁵ *Id.*

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- ¹⁶ *Massachusetts v. Env'tl. Prot. Agency*, 549 U.S. 497 (2007).
- ¹⁷ Interview with Mary Raivel, former assistant attorney general, Maryland Department of the Environment (Aug. 27, 2015).
- ¹⁸ Interview with Katie S. Dykes, deputy commissioner, Connecticut Department of Energy and Environmental Protection (Sept. 8, 2015).
- ¹⁹ Interview with Leslie Seffern, assistant attorney general, Washington Ecology Division (Sept. 11, 2015).
- ²⁰ *Id.*
- ²¹ See Michail Fragkias et al., *Does Size Matter? Scaling of CO2 Emissions and U.S. Urban Areas*, 8 PLOS ONE 1 (June 2013), available at www.ncbi.nlm.nih.gov/pmc/articles/PMC3672169/pdf/pone.0064727.pdf.
- ²² City of Eugene, Or., *City Council Passes Climate Recovery Ordinance*, Eugene-or.gov (Aug. 1, 2014), available at www.eugene-or.gov/CivicAlerts.aspx?AID=1456&ARC=3122.
- ²³ Interview with Babe O'Sullivan, sustainability liaison, City of Eugene (Oct. 30, 2015).
- ²⁴ See AM. BAR ASS'N REPORT 109, *supra* note 2.
- ²⁵ Interview with Steve Harvey (Sept. 3, 2015); see also Steve Harvey, *Climate Change: Time to Act*, Phila. Law. 18 (Winter 2015), available at www.philadelphiabar.org/WebObjects/PBAReadOnly.woa/Contents/WebServerResources/CMSResources/TPL_Winter15_ClimateChange.pdf; Steve Harvey Law, www.steveharveylaw.com/category/call-to-the-bar (last visited Nov. 7, 2015).
- ²⁶ Interview with Steve Harvey (Sept. 3, 2015).
- ²⁷ *Id.*