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The Second International Conference on Climate, Nature, and Society: Selected Conference Excerpts

Nadia B. Ahmad

THE SECOND INTERNATIONAL CONFERENCE ON CLIMATE, NATURE, AND SOCIETY: SELECTED CONFERENCE EXCERPTS

HOSTED BY THE NATURE CONSERVANCY & ST. THOMAS UNIVERSITY

WE CAN FIND GREAT HOPE

BY TEMPERINCE MORGAN

Executive Director of The Nature Conservancy

The Nature Conservancy ("TNC") is a proud co-sponsor of the Second International Conference on Climate, Nature, and Society with St. Thomas University. TNC is an international non-profit organization whose mission is to protect the lands and waters on which all life depends.

We are an organization full of passionate conservationists. We believe that thoughtful, evidence-based methods and collaborative partnerships are the key to protecting our natural environment and ensuring that the human race lives up to its obligation to protect and steward this gift, the Earth, which we all call home.

For far too long, science and religion have suffered an uneasy relationship, and the field of conservation is no exception. Despite the value both conservation and religion place on nature, tension often divides the two. There is too much at stake, and too much to lose, if we do not work together to protect the natural world.

For some of you, it may come as no surprise when I say that religious groups are the original conservationists. Worldwide, spiritual organizations own five to ten percent (5% to 10%) of forests, and sacred sites occur on every continent except Antarctica. An estimated seventy percent (70%) of national parks that exist today were originally preserved by spiritual groups, and some sacred sites in Mongolia and China have been quietly protected for more than 1000 years.

The protection of sacred places is an acknowledgment of something we all feel deeply within us. It is an understanding that there are spaces and places that speak to us; places so special that they give us a glimpse into Creation itself and inspire and soothe us in a way that nothing else possibly can. They are places that we feel compelled to protect.

The legacy of valuing the natural world and ensuring its protection is core to the mission of TNC, and is one of many reasons that our collaboration with St. Thomas University is such a valuable opportunity. Our shared values align with a mission to protect, steward, and educate along the way. We have much we can offer each other. We have much to learn from each other as well.

TNC has a presence in seventy-three countries, and four overarching priorities: protecting land and water; building healthy cities; providing food and water sustainably; and tackling climate change. We employ scientists, analysts, policy makers, land stewards, and many others, all of whom are focused on tackling the most significant conservation challenges of our day.

In thinking about how TNC can learn from our partnerships with organizations of faith, a number of things stand out. Religions are great at telling compelling stories that can inspire and inform, while scientists are not necessarily known for their storytelling skills. Religious leaders tend to celebrate what we already have rather than focusing on what we have lost. An example that some of us in the conservation world may want to learn from. A faith-based perspective allows a unique insight into the inter-connectedness of people and nature; it is a perspective critical to have at the modern conservation table. And finally, to solve the environmental crisis we are facing, which is very daunting, conservationists need to harness the power of hope and optimism, just as the world's religions do.

TNC feels a great sense of urgency in addressing the causes and effects of climate change, as we believe that climate change is the greatest environmental challenge facing humanity in the twenty-first century. Our urgency is even more pronounced here in the great state of Florida, as we find ourselves on the front lines of climate change, where the potential impacts of a changing climate cannot be ignored. In Florida, and particularly in our South Florida region, we are already seeing the effects of climate change in our daily lives — including sunny day flooding; increased temperatures; threatened water supplies; and stronger, wetter storms. The warming of the ocean is threatening the existence of our beloved coral reefs in Southeast Florida and the Keys, and it is exacerbating harmful algal blooms.

Still, we can find great hope in research that shows nearly one-third of the greenhouse gas emissions reductions that we need to achieve by 2030 can be provided by the restoration of natural habitats. We find great hope when we recognize that addressing climate change presents opportunities for innovation in all facets of human life — in providing clean and

affordable energy for communities; designing healthy, livable, and more resilient cities; conserving and protecting lands and oceans; and providing clean and stable water sources for future generations. We find great hope in the leadership provided by communities of faith and the catalysts they become on social and political issues like climate action.

The leadership of faith communities is critical in educating and engaging congregants and the broader community through mission — whether it be deploying solar panels on sanctuaries and temples, creating community carbon funds to finance clean energy, or serving residents displaced by flooding streets and hurricanes.

My generation will be looking to the college and high school students who attend and learn from this conference to be the new community leaders who will (1) educate their friends and neighbors about climate change; (2) identify innovative ways to address the challenges we face; and (3) set a new bar for stewardship of our precious environment and planet. After all, this is our home. Our individual and collective actions do indeed matter. We are all in this together.

THE CHALLENGE OF CLIMATE CHANGE FOR FAITH COMMUNITIES

BY REV. DR. JIM ANTAL

Climate change is no longer a future event. It is happening, NOW.

Drought is now measured in decades, not months. Rainfall from big storms is now measured in feet, not inches. Throughout the United States, record high temperatures are outrunning record lows 20 to 1. Fire season is now longer. It would be a lot hotter were it not for the oceans because they absorb over ninety-three percent (93%) of the heat created by global warming. As the oceans heat up, the water expands, ice caps melt, and sea level rises. In Louisiana, the worst-case scenario for human-caused sea level rise in their 2012 plan became the best-case scenario in 2018. Within this century, sea level rise will overcome both Miami and Bangladesh. Heat and drought means that much of Africa could become uninhabitable.

Humans are at risk. Biologists are now using the term "biological annihilation." I thank God that more and more people are (finally!) acknowledging that climate change is real, human caused, and an immediate threat.

Due to our own ethical lapses, we have brought this threat upon ourselves, and each other. Many fail to understand the first broad ethical issue: that climate change is an injustice multiplier and accelerator. Climate change is hitting the poorest and the people of color first and hardest. Those most affected by climate change did not cause it and are powerless to stop it. And the people and institutions who actually caused, and are causing, climate change are not paying reparations for the catastrophic damage it is already causing.

Another series of ethical concerns relate to our inadequate focus on, and acceptance of, intergenerational responsibility. We share the Earth with our descendants. We must change our attitude toward nature. With the exception of indigenous cultures, humanity regards nature as a treasure-trove for exploitation. Instead, we need a new understanding of fiduciary accountability. Let us not forget, as people of faith, it is our forebears in the faith who introduced the notions of "fiduciary" and "fiduciary responsibility," which should not be reduced to profits and losses in the short-term time horizon that dominates both investment practices and political agendas. Humanity needs to follow moral principles that take seriously the fact that for the past many decades, we have acted in ways that have consequences for centuries or even eons to come.

Given the uncomfortable facts, and our repeated ethical lapses, faith-based considerations now call upon us to take action to address climate change. The Earth is the Lord's, and He has a covenant with everyone and everything. It is a public trust doctrine with all future generations and with every living creature. We are called to love our neighbors as ourselves; and on this new climate changed Earth, we must recognize that future generations are no less our neighbors than those who live next door to us today. Think of this as the Golden Rule 2.0.

Each of us has been born at a time when the continuity of Creation is coming undone. We are living on the hinge of history. We are the first generation to foresee, and the final generation of humans with an opportunity to forestall, the most catastrophic consequences of climate change. This has huge implications for people of faith. Courage is no longer optional. It is required, and it needs to be demonstrated with a sense of urgency. And no one communicates the urgency of the climate crisis better than sixteen-year-old Greta Thunberg, who initiated a school strike for climate out in front of Sweden's Parliament, every Friday. After a few months, tens of thousands of students throughout Europe were joining her. As she then explained in her TED Talk, if climate change were real, "We would not be talking about anything else. As soon as you turn on the TV, everything would be about that. Headlines, radio, newspapers: You would never read or hear about anything else. As if there was a world war going on . . . ." Greta cannot change the world by herself.

Her traits of courage and urgency must be embraced by people on a massive, global scale. We all must talk about climate change, hear each other's testimony, and share in the processing of grief as we change the world around us, and struggle to get it back. We must re-evaluate our personal and congregational investments and divest from fossil fuel companies. Civil disobedience should become a normative spiritual practice of people of faith — every bit as much as prayer.

As we enter the long, slow-motion emergency that is climate change, we must set aside our human hubris. Faith communities must become more public in their recognition of civil disobedience as an appropriate expression of faithfulness to God. Put another way, it is time for people of faith to tell the truth about how industrial civilization is ending nature as humanity exercises our hubris. It is time for people of faith to testify to an understanding of God that is not undone by our undoing of God's Creation.

As people of faith, God is calling us to face reality, to confess complicity, to grieve over losses and mistakes, and to imagine a different future. We can create a new story in which diverse people unite in a

common cause, generate defiant and undefeatable hope, and persist in seeking reconciliation with all of Creation.

God still has a dream. It is anchored in love, not exploitation. It is a dream in which every living thing is a reflection of God, vibrantly alive with grateful, joyful hearts. God dreams that humans seek spiritual rather than material progress. God dreams of a time when love and mutual respect will bind humanity together, and the profound beauty of Creation will be treasured. Let us embrace God's dream as our own.

BRACING FOR THE FLOOD: CLIMATE CHANGE IN SOUTH FLORIDA

DR. BEN KIRTMAN

Professor of Atmospheric Sciences
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During the last 800,000 years (excluding the modern era; 1900 – present), CO2 levels in the atmosphere have ranged from about 180 parts per million by volume ("PPMV") to about 280 PPMV. The oscillations were between 180 and 280 PPMV; these changes took approximately 10,000 to 40,000 years to occur. Current CO2 levels are about 405 PPMV, and the increase from 280 to 405 PPMV took less than 150 years. This rapid increase in CO2 is unprecedented in any observational estimate.

Since the 1950's the climate system has warmed and it is one hundred percent (100%) unequivocal from the scientific evidence. There are robust multiple lines of evidence — multiple studies that involve different observational instruments that measure different components of the climate system — that support this conclusion.

The bulk of the warming since the 1950's is extremely likely (95–100% certainty) due to human activities (i.e., increases in CO2 levels associated with the burning of fossil fuels).

Given its importance in Florida, sea level merits special attention. Paleo sea level data from the last 3000 years, until approximately 1900, has been remarkably stable; there has been little change in the global mean. However, since about 1900, global mean sea level has steadily risen which is consistent with the warming recorded.

Regional climate changes are more difficult to assess. This is because the natural variability tends to be larger on the local scale, and this makes it more challenging to isolate the anthropogenic signal. Nevertheless, regional changes in temperature throughout much of the U.S. show a pronounced warming trend. There is evidence that at regional scales along the eastern U.S., and in Florida in particular, the sea level rise is accelerating.

There is no compelling scientific evidence that any of the trends that we currently see are going to reverse themselves. There is, however, compelling evidence that the current trends will continue for at least the next twenty-five years, and there is even some evidence that particular trends may accelerate. Even if one is skeptical that human activities are the cause of these trends, there is a clear local need to protect lives and property, and ensure economic opportunity in response to changes we see today. Robust, well-calibrated, scientifically-based predictions of the next

twenty-five years, and beyond, are the first step in developing effective adaptation strategies and to capitalize on the associated economic opportunities.

Florida is well positioned to respond to the challenges and opportunities associated with climate change. The academic community has established the Florida Climate Institute ("FCI"). The FCI fosters interdisciplinary research, education, and extension to: (1) improve our understanding and the impact of climate variability, climate change, and sea level rise on the economy, ecosystems, and human-built systems; (2) develop technologies and information for creating opportunities and policies that reduce economic and environmental risks; and (3) engage society in research, extension and education programs for enhancing adaptive capacity and responses to associated climatic risks. We collaborate with the local, state, and federal government to address our most pressing adaptation problems.

The process of challenging the conventional wisdom is a critical component of how robust science progresses. We should always be respectful of differing perspectives, accounting for new information and ideas, and then test them through the scientific method. This is how science works; this is how we find fact. When it comes to policy, I would just ask that policy makers take into account the best available science. When it comes to climate change, the scientific consensus is not cavalier, rather it is prudent and conservative, and is the best available science.

WHAT CITY LEADERS DO AND WHEN THEY DO IT

BY OLIVER GILBERT III

Mayor of Miami Gardens

In the City of Miami Gardens, we designed a new City Hall. It was around a 60 million dollar project, and we designed it with the environment and the planet in mind. Cities can do that. This is not just about cost savings. Yes, I understand that it might be a little more costly, but it costs the planet a lot less. We need to actually be cognizant and mindful of that as we go forward. But we must think about more than just buildings. We must think about the greater theme of this conference: why we fall short of our aspirations.

Problems are interesting in why and when we solve them, as a group. We solve them when they are intimate, it affects us personally; we solve them when they are immediate, we have no choice but to fix it now; or we solve them when they are experienced. Think about that in terms of what we are seeing happening in the world now. In any part of the world, on any given day, we are experiencing weather events that usually occur every five hundred years every two years. You do not even have to be good at math to figure out that does not work.

When they had those horrible tornadoes that ravaged the South, we watched it on the news and we made ourselves feel better by sending some clothes and making a donation. But people in Florida did not really experience those tornadoes. People in California did not experience those tornadoes. We did not experience the California wildfires. They do not experience our hurricanes.

Maybe the problem is that we are not empathetic enough. The problem of solving the environment, and the intimacy of it, is that we do not necessarily feel each other's pain. We do not see the circumstances until they affect us and then we only experience them contemporaneously, not perspectively.

In Florida, we only experience the hurricane until our electricity comes back on. But hurricane season is beginning earlier. The oceans are getting warmer sooner. Not the ocean right off of Miami, but the ocean off of the coast of Africa. You know how much heat it takes to actually heat water on the coast of Africa and it have an effect in the Caribbean? We are not thinking about it that way because we live in the moment.

Perhaps we cannot live up to our aspirations since it is never intimate to all of us at the same time because we can never feel each other's pain. It is never immediate enough. The environment is always something we can solve tomorrow.

Changes to the environment are happening slowly and quickly at the same time. It is happening slowly in the sense of our average life spans. But if you look at the changes in the potent ice caps, the climate, the oceans, and you measure it over the entire span of the Earth's life span, it is happening pretty fast.

It is going to take all of our collective efforts to actually stop and reverse our changing climate. It has to be intimate. It has to be immediate. We have to experience it at the same time. And we can only do that if we change our mindsets.

Our politics as a community and our politics as a world do not necessarily speak to this issue. This cannot be solved by our leaders and a top-down approach. They will not care unless you make them care. I care. I care because I think that we are being poor stewards to the planet that God gave us. Do you care?

Leaders around this country, or around any community, will not make the environment matter unless a specific group of people make it matter for them. Will you? It will be their fourth priority, maybe. But what we say throughout history, specifically the history of this country, is when it becomes important to the voters, it becomes important to the leaders. It has to be important to you. You decide. You make it important. If you make it important, then the leaders will make it important.

WHY AM I WEARING RAIN BOOTS?

BY SENATOR JOSE JAVIER RODRIGUEZ

It is an honored to serve in the Florida Senate and to represent a large part of Miami-Dade County. Yes, I am standing here wearing rain boots. This is ridiculous, but this is what I do every day in the Florida legislative session. For all of the 2018 and 2019 sessions, I am wearing these rain boots. By the looks of it I will probably have to wear them again next session unless we really get our act together in the next four and a half weeks of the legislative session. What I share with you today is why, from my vantage point, a moral argument or an ethical argument about climate change is helpful at this particular moment.

A little bit of background is helpful with respect to the legislature, the legislative process, and legislative initiatives that we have worked on. In the Florida legislature, there are forty senators and 120 representatives. We meet formally for sixty days every year, but there are many weeks of committee work that happen, so about half of the year, the legislature is doing active legislative work.

The genesis for the bill that I am going to speak about was a sense of frustration. The things we were doing related to climate and sea level rise were very small and incremental. They were little things. Florida, however — as nobody in this room needs to be told — is ground zero for sea level rise.

Climate change has a whole range of effects. If we were in Phoenix, Arizona, we would be talking about the heat, and I am not joking. We are in Miami and South Florida, especially, is probably the most vulnerable place on the planet because of our geology to sea level rise. There was not a sense of urgency. There still is not. We need transformational leadership in Florida now. We needed it decades ago, but we need it now. We are at a very critical moment.

Along with a whole bunch of others, I worked on and filed proposed legislation last year and filed again this year. What it does is pretty simple: it says that when we are using state dollars in a coastal zone and building infrastructure, we have to do sea level rise planning with it. It is basically saying we need good stewardship of taxpayer dollars. If we are going to be investing as taxpayers in significant infrastructure projects, we should plan fifty years out, right? And ask, based on the best modeling we have right now, what are the things that we need to be planning for with respect to weather events?

A large part of my argument is that in the long run it will absolutely save us money and be smart. We may not have to wait for "in the long run" because it may be immediate. When we speak about good stewardship in the environment, we may realize that building a gigantic sea wall is actually less cost-effective than mangroves. So saving money, both in the long-term and immediately, is possible.

This legislation has been moving in the Senate. The chair of the first committee where we heard the bill, took me at my word, but was genuinely surprised to see at the first committee stop that it was unanimous, that a Republican colleague of mine debated in favor, and that we had a coalition speaking in favor. It was not just the environmental community. It was also local governments and, importantly, the builders, architects, and design professionals who would actually be tasked with doing this. And the Florida Department of Environmental Protection has already been doing a lot of the components of the bill, so they were helping to make sure it was workable.

The point was that taking real action on climate is not controversial. It is just that it is not a priority. Urgency is what we need. That is why I have been wearing these rain boots, so that while every single one of my colleagues has an opportunity to make fun of me for how ridiculous this is I get exactly that many opportunities to talk climate with them. I am walking the hallways, the capital, and the stairs trying to keep the issue of climate front and center.

At the very beginning of my time serving in the legislature, we were still at this place where there were climate deniers or naysayers. There was a partisan debate, and it was ideological. That is not the case anymore. Not a single one of my colleagues has even jokingly engaged in a debate about science this year. That is a remarkable difference, right? To me, the quality of the conversations and knowledge of the issue from a lot of my Republican colleagues is something notable and a lot of the good ideas are actually coming from the other side of the isle.

But again, it is still not urgent for them. It is still not front and center. Part of how I explain this is that there is an intimidation factor because there is an assumption that addressing the effects of climate will cost a whole lot of money. If the sea is rising, there is this very basic idea that there will be a huge state impact with the fear of spending all these taxpayer dollars on this.

My wife and I have two little sons. Our oldest is not yet three. They have fifteen more years where we get to decide where they live. But when they get to decide where they live, I would love for them to have the choice

to live where we grew up, here, in Miami. If we do not get our act together now, that may not be as easy a choice. Not to be a fearmonger, but that is a reality that a lot of people are thinking about. Becoming a father has helped really put that front and center. I really do want my kids to have the opportunity to grow up in the same place I did.

On the drive over here I was thinking, since my wife and I are Catholic, I should throw in some bible verses or something. The thought that occurred to me, since we are talking about water coming up, that at a different time when water was rising Noah was the only one who got the memo. Wearing these rain boots, I sort of feel like Noah sometimes

But more of my colleagues are finally helping me on the issue of climate. They realize that credit markets, Wall Street, and insurance companies are looking really closely at what we are doing here in Florida. If we do not get our act together very quickly, my concern is that we have as much to worry about decisions that are made in the world of finance and insurance as we do about a mega hurricane coming.

One of the most worrisome things about climate is that storms are getting bigger, as we know. Weather events are getting more severe and harder to predict. A lot of us are grateful that Irma did not come right through downtown Miami. An event like that would have really changed things for us. But what is keenly on my mind more and more is that it may not be a weather event. It may be a financial decision made on Wall Street, in Switzerland, or the Cayman Islands to value, rate, or fund things differently. That is going to put financial burdens on us as taxpayers, us as residents.

We have advanced from climate change being a purely environmental issue, to one that is an environmental and economic issue. I think now it also needs to be looked at as an issue of human health and as a justice issue. We must think of vulnerable populations and our children. The impacts of climate change, like the impacts of honestly any shock to the system, are most born by the vulnerable — not by those who have resources to plan more easily and adapt. Therein is the moral imperative.

For example, if you have a mortgage you are stuck. If you own one home, it is the biggest investment you have ever had for the vast majority of people who work real hard and own a home. That mortgage is extremely important. It has a huge impact on your life, the life of your kids, and the banks and insurance companies, too. We need to put in protections to make the possible economic effects of climate change more gradual.

Property value is changing in different neighborhoods. There are a lot of studies being done now about the issue of gentrification. Differing ideas

of what land is more valuable now, and in the future, are accelerating gentrification. There is evidence of it. Obviously, gentrification has uneven impacts. Some people benefit, while other people do not; for example, some have to move creating longer commutes to work. However, the range of impacts to human health is of most immediate concern. Issues of environmental justice and health equity are exacerbated by climate change. The vulnerable – the young, the old, the mobility-impaired, the poor, the marginalized – all are hit hardest and swiftest. What kind of things, policy-wise, should we be thinking about putting into place now from the perspective of justice?

We are not there yet. I am inviting you all to help me figure it out. Climate change is about the environment, economics, ethics, and morality. But there are many other people who may know this stuff a lot better than me. I am just trying to start that conversation, driving over here wearing my rain boots.

INTEGRAL ECOLOGY, WATER, CLIMATE CHANGE

BY TEBALDO VINCIGUERRA

Official of the Dicastery for Promoting Integral Human Development at the Vatican

This is a summary of the lecture given at St Thomas University, Miami, April 4th, 2019.

Water has been a major influencer in human history: the development of cities and civilizations, transport and economics, even literature and sacred rituals. Centuries ago, engineers brilliantly addressed the issues of water supply, wells, irrigation, and drainage systems.

We should not be indifferent when noticing the numerous water-related challenges (devastating floods, pollution, humiliating and deadly lack of drinking water, destruction of water towers by militaries). Nevertheless, for the inhabitants of rich countries that have access to water and sanitation and can afford insurances, indifference is often a temptation. Maybe we consider access to water and sanitation as obvious and granted. Why should we care?

In 2017, the World Health Organization published the following shocking estimates:

> In 2015, 71% of the global population (5.2 billion people) used a safely managed drinking-water service – that is, one located on premises, available when needed, and free from contamination. 89% of the global population (6.5 billion people) used at least a basic service. A basic service is an improved drinking-water source within a round trip of 30 minutes to collect water. Eight hundred and forty-four million people lack even a basic drinking-water service. Globally, at least 2 billion people use a drinking water source contaminated with feces. Contaminated drinking water is estimated to cause 502,000 diarrheal deaths each year.

Beyond these figures, water is often perceived as a resource characterized by competition (competing uses vs. local availability), by unsustainability (pollution affecting ecosystems and human life, pumping beyond the regeneration capacities), and by inequity (some can afford or control plenty of water, even for recreational purposes or profit, while others cannot have the amount of water needed for personal hygiene, subsistence agriculture and life with dignity). In some circumstances, water-related challenges can contribute to local instability, violence or migrations. Poverty is exacerbating the inequalities: poor communities not connected to water-distribution systems often purchase the water they need

from informal and expensive vendors, and this represents a significant amount of their income; while tap water would be safer and cheaper.

When talking about water, we need to consider it has three dimensions: (1) Water as a direct need for human life: this means water to drink and sanitation, and this has been recognized by the UN as a human right; (2) Water for other vital activities, e.g. producing food, goods and energy, without neglecting the amount of water needed by the environment itself; (3) Water as 'a space', I mean seas, lakes, rivers, oceans, etc.

The encyclical *Laudato Si'* of Pope Francis offers some ethical considerations in this regard:

> [A]ccess to safe drinkable water is a basic and universal human right, since it is essential to human survival and, as such, is a condition for the exercise of other human rights. Our world has a grave social debt towards the poor who lack access to drinking water, because they are denied the right to a life consistent with their inalienable dignity [. . . .] But water continues to be wasted, not only in the developed world but also in developing countries which possess it in abundance. This shows that the problem of water is partly an educational and cultural issue, since there is little awareness of the seriousness of such behaviour within a context of great inequality. (§ 30).

"Let us also mention the system of governance of the oceans [. . . .] What is needed, in effect, is an agreement on systems of governance for the whole range of so-called 'global commons.'" (§ 174).

This encyclical letter quotes many fundamental principles of the social teaching of the Church, such as: the common good of the whole human family, subsidiarity, integral human development, and the universal destination of goods. The latter reminds us that we should not care only about the natural resources we will leave to the next generation (amount of clean water, number of forests . . .) but also about the institutions we will leave (what kind of education system, of democracy, of civil society, of markets, of justice, of impact investments). *Laudato Si'* also proposes a powerful framework for analysis and commitment: namely, integral ecology (Chapter 4). It encompasses environmental ecology, economic ecology, social ecology, ecology of daily life, cultural ecology, good health of institutions, and human ecology. Inspired by the Bible, *Laudato Si'* teaches that "each organism, as a creature of God, is good and admirable in itself; the same is true of the harmonious ensemble of organisms existing in a defined space and functioning as a system" (§ 140). Accordingly, these organisms deserve to be contemplated (and the contemplation of water can lead to fabulous and inspiring meditations). They also deserve to be shared and respected, beyond any utilitarian and selfish approach, which says

"respecting water only in what is sufficient in order to safeguard our business, only to avoid fines or bad reputation." We also are creatures, hence we have limits! We are not the owners of water, nor its creators. We are on Earth with the mission (given in *Genesis*) to care for the common home, humbly and in solidarity, during the time of our brief lives. Water is a marvelous gift! Even if sometimes we may be convinced that – thanks to our infrastructure, our chemistry and our technologies – we have mastered water, we should remain humble: we are far from fully understanding the complexity of water mechanisms, and far from defeating a tsunami or even preventing it.

What we have in common is a common concern/care for a common home, and we are all dwelling in it with a common and intrinsic human dignity. These fundamental pillars should guide our deliberations. After awareness, what we need is motivation: "change is impossible without motivation and a process of education" (*Laudato Si'* § 15). This is why "faith convictions can offer Christians, and some other believers as well, ample motivation to care for nature and for the most vulnerable of their brothers and sisters. If the simple fact of being human moves people to care for the environment of which they are a part, Christians in their turn realize that their responsibility within creation, and their duty towards nature and the Creator, are an essential part of their faith. It is good for humanity and the world at large when we believers better recognize the ecological commitments which stem from our convictions" (§ 64), thus avoiding overreliance on technology.

Our motivation and a valid ethical framework should guide future actions according to the aforementioned integral ecology. Not only the lack of drinkable water is a shame, the promotion of unhealthy drinks (instead of tap water) is insane. Human dignity should guide our actions and inspire a valid hierarchy of priorities (helping those most in need) and assist in solving conflicting situations (establishing priorities between conflicting uses of water according to human dignity). For centuries, judges and other administrations have taken care of water. Some water-tribunals in Spain have even been celebrated by UNESCO. Human dignity, finally, is the root from which all duties and rights can stem.

In conclusion, water has to be considered "a common good" and has to be managed in the view of "the common good" of the whole human family. We must constantly challenge ourselves about our vision: what is our vision of water and its value? And what is our vision about our brothers and sisters? All agents, including businesses, researchers, municipalities, and governments need to act according to justice, solidarity

and subsidiarity, constantly promoting dialogue, culture and education oriented to a wise and responsible water management. This fabulous and vital element has unquestionably an important role in the sacred writings of many cultures, rituals, and religious traditions of the world. Consequently, interreligious concertation and collaboration should — and hopefully will — contribute to a better care for water: it is a matter of sustainability and also of peace. This said, we should be ready for a long-term commitment, since *Laudato Si'* is not an encyclical letter for hasty action. Political will and consistent policies will remain a challenge. In the words of Pope Francis, "Many things have to change course, but it is we human beings above all who need to change. We lack an awareness of our common origin, of our mutual belonging, and of a future to be shared with everyone. This basic awareness would enable the development of new convictions, attitudes and forms of life. A great cultural, spiritual and educational challenge stands before us, and it will demand that we set out on the long path of renewal" (§ 202).

WORSE THAN WE THOUGHT

BY RABBI JEFFREY K. SALKIN

Senior Rabbi, Temple Solel, Hollywood, Florida

All of my friends are becoming grandparents. I am thinking about the world that our grandchildren will inherit. No less than ninety-one scientists from forty countries have analyzed more than 6000 scientific studies highlighting the detrimental effects of climate change. If they are correct, and if we read the work of the International Panel on Climate Change, those effects are what my grandchild can expect.

By 2050 — which is to say, during my unborn grandchild's senior year of college — if greenhouse gas emissions continue at the current rate, the atmosphere will be as much as 2.7 degrees hotter than it is now. Already, the last three years have been the warmest in history. Or, to put it a different way: The other evening, I looked at our current eighth and ninth graders and I said to them, "I hope that you will all have children in your lives. Do you realize that most likely, by the time you are parents, when you are thirty-six and thirty-seven years old, this world will be a very different place?"

The prognosis for this planet could have come straight from the pages of the Hebrew Bible. This planet will become hotter. That will lead to drought — and that will lead to increased wildfires, increased famine, and increased poverty. If the atmosphere warms up 2.7 degrees, consider what will happen to the coasts of this country (not to mention this county) — as well as the coastlines of Bangladesh, China, Egypt, India, Indonesia, Japan, the Philippines, and Vietnam. That amounts to 50 million people. The coasts will flood. In this country alone, it would lead to the single largest forced exile of any people in the history of the world.

Consider what would happen if the atmosphere warms up 3.6 degrees. Tropical countries will be simply uninhabitable. People will swarm out of those countries. National borders will become irrelevant. Chaos will ensue. If scientists are correct, 250,000 people, between 2030 and 2050, will die every year from malnutrition, malaria, and various heat-related maladies. Developing countries and poorer areas will be unable to cope. It is "ecocide" — large-scale destruction of the environment.

I do not want to say much more for fear of further darkening this Shabbat, but it is not as if we did not know. Several weeks ago, an entire issue of the Sunday *New York Times Magazine* made it very clear: We have known about this for decades, but we have refused to heed the warnings, kicking the proverbial climate can down the alleyway.

Every single hurricane and super storm should have taught us and reminded us. The massive fires in California or the devastating storms Katrina, Irene, Sandy, Harvey, Irma, and Florence; it is all very simple. Warmer seas mean more energy to intensify those storms, which means more storm surges, leading to more wind damage, and causing more coastal flooding.

We, and all those who care about this issue, are actually facing one of the most bizarre and most troublesome trends in America today — the simple denial of science. Senator James Inhofe of Oklahoma brought a snowball onto the floor of the Senate. He told everyone that it was cold outside. He wrote a book about climate change called *The Greatest Hoax*. In 2012, North Carolina passed a law in that prohibited using climate science in state planning. It is funny, and unfunny, how a hurricane named Florence did not get that memo.

Listen to this poem,
Hold Your Breath: A Song of Climate Change

> The water's rising but we're not drowning yet.
> When we're drowning we'll do something.
> When we're on our roofs.
> When we're deciding between saving the cute baby or the smart baby.
> When there aren't enough helicopters
> or news crews to circle over everyone.
> When sharks are in the streets.
> When people are dying.
> When people with wine cellars are dying.
> We'll build dams and dikes, put stilts on our V-8s and golf courses,
> cut down anyone who cuts down a tree . . .
> We'll grow wings, we'll go to the moon.
> Soon.

Why have we failed to act?

First, there are political reasons. The deniers simply disagree with the politics of those who advocate for change. It has become a partisan political issue — when nothing should be unifying this country and this world more than this.

Second, there are economic reasons. Simply put, many deniers have a vested interest in not liking the solutions to the problem. What are those solutions? Not only getting rid of coal, but massive changes in the way that industry, business, and capitalism work — we are talking about the single largest and most sweeping revolution in human behavior that our civilization has ever confronted.

And third, there are human reasons. When we confront something as massive and as existential as what we are confronting in our world today — what is the natural human response? We become numb. We became numb when we confronted the nuclear peril. We become numb when we confront ecological peril.

Everyone knows the story of Noah. God sees the wickedness of humanity and decides to wipe out the world with a flood, and start over. God instructs Noah on how to build an ark, with precise dimensions. Noah brings two of every animal — or two of every kosher animal — onto the ark. It rains for forty days. Noah sends out the dove to see if there is dry land; the dove returns with an olive branch in its mouth. Then, God made a covenant with the survivors — that God would never again destroy every living creature — and that the natural cycle would endure: "As long as the earth endures, seedtime and harvest, cold and heat, summer and winter, day and night shall never cease."

There is a sequel to the story that never quite makes it into the Children's Bible. Right after he emerges from the ark, what does Noah do? He plants a vineyard. It is the first vineyard in history. Noah grew grapes. He made wine. He drank the wine. He became drunk. Why? I submit to you that Noah got drunk because he was depressed. What was it that depressed him? Yes, there was the classic guilt of the survivor, but even more than this, Noah was depressed because he knew that he had failed to respond to the global catastrophe that loomed before him.

The ancient rabbis understood this failure. They said that Noah simply failed to believe what was going to happen. Genesis 7:7 says, ". . . Noah, with his sons, his wife, and his sons' wives, went into the ark because of the waters of the flood." In Bereshit Rabbah 32:6, third century teacher Rabbi Yohanan says, "If not for the water reaching his ankles, he would not have entered the ark."

Noah was in denial and failed to act. It took the waters of the flood to reach his ankles before he did anything. By then, it was too late.

It is not too late for us.

RECOGNIZING THE ROLE OF RELIGION IN ENVIRONMENTAL LEGAL NORMS

BY NADIA B. AHMAD

Alternative and supplemental viewpoints to the environmental law canon come from religious traditions, thus offering additional legal mechanisms for environmental protection and climate change adaptation measures. The foundations of faith-based approaches to environmental protection are rooted in historic traditions of Judaism, Christianity, Islam, Hinduism, Buddhism, Jainism, Zorastrianism, Daoism, Shintoism, and Sikhism. While the fundamentals of religious jurisprudence are extensive, what is most important is how sustainability and environmentalism are moral imperatives in world religions. These world religions emphasize the duty of the individual to care for the environment instead of a rights-based approach. This duty is rooted in the belief that the Earth, in its totality, is a creation of the Creator, and that both the individual and the State are enjoined to take responsibility for Creation as part of religious duties.

Diverse religious texts are replete with references to righteousness as critical to faith. In sacred scriptures, humans have a divine mandate to improve nature and dispose of impurities as they find them. This purification is focused on bringing order and progress to nature without destroying it in the endeavor.

Intergenerational equity is also a chief concern of climate change adaptation efforts and sustainable development. According to much religious teaching, present generations should keep the environment healthy and safe for inheritance by future generations. This duty-based approach is substantially different from a rights-based approach, and can widen legal and moral tools for environmental protection.

The indirect impacts of energy production, generation, and consumption increase the burden on third world nations in energy production, often for the benefit of the nations in the Organisation for Economic Co-operation and Development ("OECD"), including the United States. But environmental destruction that can come from these industrial activities violates the public interest, especially when it causes air, soil, or water pollution. Reframing environmental protection as a religious issue can address neoconservative tendencies toward business expansion and laissez faire economics. The concern is that those who contribute most to carbon pollution will not be around to face its impacts.

Faith traditions provide centuries-old legal customs and norms for environmental ethics, and can add to the understanding of the public trust

doctrine, while also impacting various international law agreements and modalities. Identifying faith-based approaches to environmental protection assists in the conservation of religious identity and the protection of the environment. By learning from faith-based approaches, law and policy makers can formulate an international order that is more ethically driven, more ethically consistent, and less contradictory.

SNOWBALLS, SCIENCE, AND EVANGELICAL SPIRITUALITY

BY RYAN GLADWIN

Associate Professor of Ministry & Theology
Palm Beach Atlantic University

On February 26, 2015, current Oklahoma Republican Senator James Inhofe, who at the time was the chair of the Senate Environment and Public Works Committee, infamously threw a snowball amid a diatribe against the science of climate change. Rather than quibble with Senator Inhofe over his faulty interpretation of climate science (or, better said, his refusal to engage climate science), consider instead how and why his faith, as a self-proclaimed evangelical Christian, influenced his refusal to care for the environment.

Most evangelicals in the U.S. do not talk about climate change or advocate for care of the environment in great part because of their theological convictions and spirituality. In fact, there are theological reasons why evangelicals struggle to care for the environment. Evangelicalism is an experiential and conversion-centric type of Christianity with roots in British and North American revivalism. It is a highly functionalist faith, driven by what ethicists would call a consequentialist ethic. It values conversion and the saving of souls above almost all other goods. This drive to preach the gospel means that many good things, including the Earth, can often be relegated to instrumental goodness (i.e., good only if and when it leads to conversion). This theological conundrum is compounded by several other theological convictions. A dominionist understanding of the doctrine of Creation suggests that God gave man absolute dominion over the Earth. A reductionist view of the atonement as penal substitution suggests that Christ's death on the cross forgives all environmental sins. And finally, a premillennialist eschatology posits that Christ's imminent return eliminates the need to worry about preserving the Earth.

There are also historical reasons why Evangelicals have been reticent to engage environmentalism and climate science. The rise of modernism, and its attempt to explain the world through science, was resoundingly rejected by conservative evangelicalism. As a result, there is a longstanding, contentious relationship between evangelicalism and science. The presence of many former Christians in the leadership of the early environmental movement and the movement's willingness to advocate for abortion as a way to deal with the perceived threat of overpopulation,

meant that evangelicals saw the environmental movement as an alternative religion that challenged Christianity.

Simply put, Senator Inhofe is not alone. Theological and historical challenges inhibit the extent to which evangelicals care for Creation. In the absence of a holistic understanding of the gospel; engagement in Earthly forms of worship and community activities; and a significant theological shift, climate change is not likely to become an evangelical priority.

GREEN THE CHURCH

BY REV. TANIA MAXWELL – CARROLL

Greater Antioch Missionary Baptist Church

Green the Church stands at the intersection of Ecology and Theology for the Black Church. We have been prodding the flywheel to see over 10,000 black churches working to revive all of God's Creation. From the polar ice caps to the inner cities and rural communities, people of African descent live, move, and have their being.

We stand on three pillars that guide the work. First, we amplify Green Theology: "Green the Church emphasizes the message that Christians have a duty to protect God's Creation. We work with church leaders to develop and share resources for theological teachings." Second, we promote sustainable practices: "Green the Church works with church leadership to make church buildings and operations more sustainable. From energy audits to healthy food programs, we work with congregants and leaders to literally green the church from the bottom up." Third, we build power for change: "Our ability to create health and prosperity at the community level is tied to the local, state[,] and federal policy decisions."

Ultimately, Green the Church supports member churches in identifying how they can flex their shared political and people power. Our goal is to transform how our government acts on climate change, support green economy, and invest in resilient communities.

FAITH, SCIENCE, AND GOD'S INTENTIONS: THE CLIMATE CRISIS NEEDS SERVANTHOOD LEADERSHIP

BY REV. ALFRED CIOFFI, STHD, PHD

In February 2016, the Florida Representative of The Nature Conservancy sent an email. She had been in the audience at the First International Conference on Climate, Nature, and Society, hosted in the Moot Courtroom of St. Thomas University. She offered for The Nature Conservancy to sponsor a second one, if we were interested. And yes, we were definitely interested!

That first conference was motivated by *Laudato Si'* by Pope Francis, the first encyclical in the 2000 year history of the Catholic Church totally devoted to the environment: care for Creation. But, since back then the issue of climate change was even more controversial than now, we at St. Thomas University wanted to explore both the scientific evidence for climate change, and some possible major social and spiritual implications of that change.

Laudato Si' became available to the public in the summer of 2015 and by 2016, the conference was planned. A two-day event, the first day would be dedicated to the scientific evidence for climate change: three scientists, an astrophysicist; a climatologist and a marine biologist. The second day was devoted to the social and spiritual aspects of climate change: again, three speakers, a social scientist; an urban planner and a Catholic Cardinal. That Catholic Cardinal was His Eminence Peter Turkson, who had been the Convener of *Laudato Si'* for Pope Francis. Therefore, the caliber of speakers and talks was very high quality indeed.[1]

For our second conference, The Nature Conservancy had a particular request: if we could focus on what various faith communities are doing with respect to care for Creation. St. Thomas University readily agreed, for a number of reasons. First, we are a Catholic institution of higher learning. Second, this was an opportunity to do something, not only ecumenical (between various Christian denominations), but even inter-religious—considering that Judaism, Islam, and many Eastern Religions also have great reverence for Creation. Third, because unless we take the message of climate change and care for Creation to the deepest level of spirituality, it remains incomplete in the human mind and the human heart.

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[1] *See generally* St. Thomas University, *First International Conference on Climate, Nature, and Society*, YOUTUBE (March 3, 2016), https://www.youtube.com/watch?list=PLYBSB-JWQg264EZamz7rmOWwasA2EDheF&time_continue=5&v=J9QscsnuM2I.

Our 2019 conference expanded the number of speakers and panelists to two dozen. Again, we started with a review of the scientific evidence for climate change—done by a climatology professor from the University of Miami. Then, we proceeded to explore what various faith communities are doing to try to mitigate or remediate, at least, the anthropogenic aspect of climate change. We heard from Catholic, Jewish, Muslim, Protestant, and Unitarian speakers, including a representative from the Vatican who is an expert on water at the global level. We also heard from government and civil officials—both at the state and the local level—on preparation plans with eventual sea level rise, coastal flooding and salt-water intrusion. Many faith communities have incorporated the challenge of climate change into their mission-vision, and have begun to take a variety of positive steps to mitigate or remediate some of its negative impact on nature and humanity.

Still, we know that there are a number of other faith communities that continue to be skeptical about climate change, or about the possible anthropogenic contribution to it. Yet, the scientific evidence is simply overwhelming. We are all aware that there are long-lasting climate cycles in nature that have occurred over thousands and even millions of years—obviously, humanity had nothing to do with those. Yet, the unprecedented accelerated rate of greenhouse gases accumulating in our atmosphere and oceans, combined with the increased contamination of air, land, and sea, together with exponential loss of natural habitats worldwide due to agriculture, logging, and urbanization is leading to what scientists are now calling the sixth mass extinction of species on planet Earth. And, in contrast with the other five, this one is anthropogenic, that is, likely caused by our species.

As drastic as the situation is, it has been Almighty God who created our species and planted us on this planet. We have to believe that we also have the capacity to actually live in harmony with the rest of Creation. No doubt, so far, we are the only species that seems to have the capacity to destroy the whole world, and destroy ourselves in the process. But it doesn't have to be this way. It can also be God's way, that is, to be reconciled to one another and to reconcile with all other living species here on earth; to exercise stewardship rather than exploitation; restraint rather than greed; and responsibility rather than immaturity. Time will tell, but one has to believe that, by framing the issue of climate change and catastrophic loss of biodiversity in religious and spiritual terms, one has a better chance of arriving at and implementing what God has intended for our species to be here on earth: Servant Leaders. May His will be done, on earth as it is in heaven. Amen.