

*Climate-change expert
Katharine Hayhoe, a scientist
and a Christian, is on a
mission to change the minds
of faith-based deniers*

God and global warming

BY EMILY GREEN
STAFF WRITER

Katharine Hayhoe never goes where she's not invited, and when she accepts an invitation, she usually finds herself surrounded by people who vehemently disagree with her.

Hayhoe, 43, is one of the nation's foremost atmospheric scientists. She was lead author of the second and third U.S. National Climate Assessments, she directs the Climate Science Center at Texas Tech University, and she has written more than 120 peer-reviewed publications and works with city managers, engineers and ecologists across the country to prepare for climate-change impacts.

She's also an evangelical Christian on a mission to convince faith-based climate-change deniers that climate change is real, that it's caused by human activity and that taking action aligns with their core values and beliefs.

Her strategy is simple: build a bond over a shared value; connect things that affect that commonality to climate change, then — and only then — explain the science. She concludes with common-sense solutions, many already set in motion, because hope, not fear, inspires people, she says.

She uses the same tactics when speaking with farmers, ranchers, fossil fuel industry employees and other groups less likely to be on board with the climate movement.

On June 24, Hayhoe will be in Portland at the Arlene Schnitzer Concert Hall to give a talk, "Climate Change: Fact and Faith." She says it's a rare exception to her rule against taking speaking engagements with audiences who don't need convincing.

Hayhoe recently spoke with Street Roots from her home in Lubbock, Texas, about our changing climate, how the media perpetuates myths about climate change, and what approaches work best when trying to convince climate-change deniers to accept

the facts and take action.

Emily Green: *What are some of the takeaways from the 2014 U.S. National Climate Assessment of the United States you think might surprise even the most avid of climate activists?*

Katharine Hayhoe: Looking at those observed trends and future projections, it was clear climate change matters to each of us in the places we live today. If we live in the Southwest, we know water shortages are our issue. If we are in the Northeast, we know too much water is the issue. If we live in cities, heat is our issue. The National Climate Assessment clearly showed the reason why we care about climate change varies from place to place, but those reasons are all very real, and they are all here today.

E.G.: *How have predictions for future climate impacts changed in recent years, and do you think we're getting better at predicting what will happen in the future?*

K.H.: First of all, there was a paper published by (scientists and academics) Brysse, Oreskes (O'Reilly) and Oppenheimer two years ago that looked at climate projections from 1990 to 2010, asking: "Is it true that climate scientists are alarmists?" If it was true, we would expect to see, over the last 20 years, the rate and magnitude of change in the real world is much less than what scientists predicted. They found that far from being alarmist; climate projections had been consistently on the low side — so much so that it could not be accounted for by scientific uncertainty. And so in this paper, they coined this syndrome, ESLD — Erring on the Side of Least Drama. Subconsciously, we (scientists) are so conservative, and we so hate being accused of being alarmist, that we are downgrading the risks in our own projections.

Second, one of the most important new

things we have learned over the past 10 years is the impacts of climate change are far more wide-ranging than we imagined. In the beginning, scientists often focused on the direct impacts of warming: sea level rise, heat wave risks, increasing rainfall intensity. And these are important. Hundreds of millions of people could be homeless this century due to sea level rise alone. In 2003, a heat wave over in Europe was responsible for 70,000 premature deaths; climate change had doubled the risk of that event occurring. Just this year, Texas was devastated by record rainfall and flooding, consistent with what we expect more of in a warming world.

What we're recognizing now, though, is that secondary impacts may be just as, if not more, important. The direct impacts of climate change may be dwarfed by the indirect impacts of climate change on, say, political instability or the ocean's food chain.

E.G.: *Some have said you've made it your mission to spread the gospel of climate science among Christians. How did you come to take on such a mission?*

K.H.: "Gospel" means good news. I feel more like an Old Testament prophet than I do a New Testament evangelist, warning people to turn from their ways before disaster happens.

Part of the problem with climate change is that it's been deliberately framed as alternate religion. Many people — maybe few in Portland, but many where I live here in Texas — interpret, "Do you believe in climate change?" as "Would you like to worship at the altar of Al Gore?" So I think it's really important to differentiate between what we believe versus what we know.

Based on physics and the available evidence, not based on a crystal ball, the most logical and solid conclusion is that climate is changing due to human activities.

Until 2008 or 2009, I don't think anybody really knew where I went to church on

Sunday. The reason I decided to tell people I was a Christian was because when I looked around in the United States, evangelical Protestants, the group that I'm in, were the least likely to agree that climate is changing due to human activities.

My community, my church, my neighbors — the people who believe much of the same theology as I do — they were the ones being deliberately misinformed about climate change.

E.G.: *In Showtime's "Years of Living Dangerously," a documentary series on the impact of climate change, you and your husband reached out to Kurtis, a cotton farmer and Christian who wasn't on board with climate change. After your husband told him 97 percent of scientists agree it's happening, he changed his mind. Can you explain why, with so much information available at our fingertips, so many Americans don't have all the facts?*

K.H.: Ed Maibach and his team at George Mason University traveled around the country asking people what they thought about climate change and whether it was human caused. They wanted to know, if you only have 10 seconds to talk to someone, what's the most impactful thing that you can say. They found the simple message that scientists agree changed the most minds, and that's exactly what you saw with Kurtis.

Americans believe scientists are divided about 50-50 on whether humans are changing climate change. In actual fact, survey after survey has shown scientists are at least 97 percent in agreement and the scientific literature is over 99 percent.

Why do we think it's 50-50?

The Union of Concerned Scientists went through every segment on several major news networks and counted how many times accurate information versus demonstrably false information on climate change was presented. What they found for 2013 was,

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