IS GLOBAL WARMING JUST A LOAD OF HOT AIR?

Climate change is clearly a burning issue, but who to believe? We spoke to three experts with differing views on the subject in an effort to determine what's really going on.

WORDS Jim Wake

Photography: James Balog.

Previous spread: **The calving face of the Columbia Glacier, Columbia Bay, Alaska. The glacier has retreated 11.3 miles since 1984.**

Right: **Many think that the damage to the planet being caused by humans is comparable with the effects of devastating natural phenomena such as the Fimmvörðuháls eruption in Iceland.**

According to Katharine Hayhoe, a climate scientist on the faculty at Texas Tech University, taking action to prevent a catastrophe as the Earth warms up is long overdue. If you talk to Benny Peiser, director of the London-based Global Policy Warming Institute, he'll tell you we don't know nearly enough about what is going on to embark on costly measures to cut CO_2 emissions. Ask Bjorn Lomborg – who established his reputation a decade ago as The Skeptical Environmentalist with a book of the same name that made him a hero to the climate change doubters and a pariah among mainstream environmentalists – and he'll say we've got a problem, but it's not the most pressing, and the ways we've been going about solving it are all wrong.

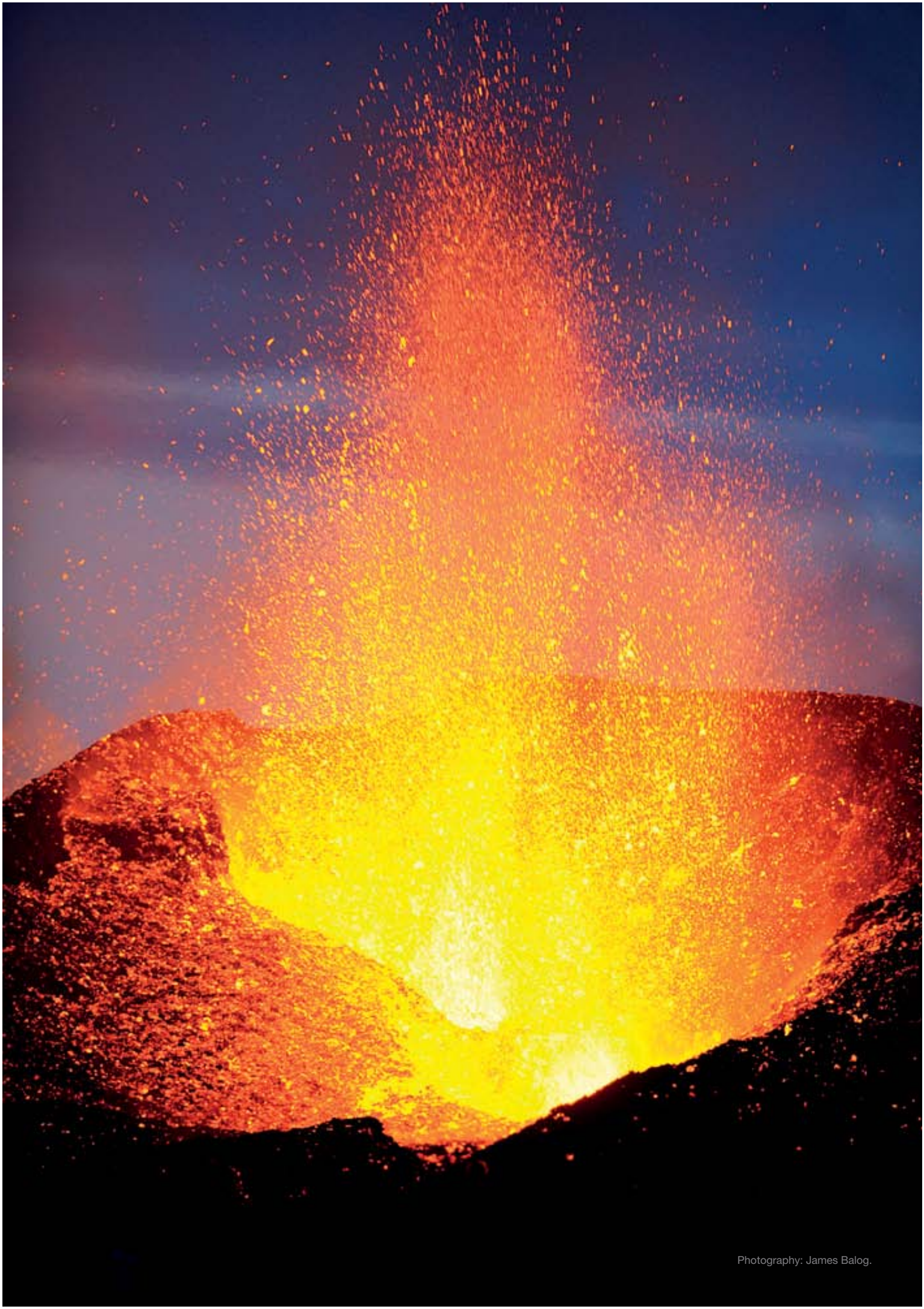
So what are we supposed to believe? If you're hoping that we're about to provide the definitive answer, I'm afraid you're going to be disappointed. Because the only thing we can say with some degree of certainty is that the climate is changing. How much? Well, the numbers vary from 1° to 5° Celsius. How fast? Either so fast that you'd better buy yourself a boat, or so slowly that you can relax and examine your options over the next 50 years. What's the cause? Most people now agree that industrialization has had a major effect. Anthropogenic climate change – the result of human activities – is real, but plenty of skeptics remain. So what to do about it? Let's just say that for some of us, the jury is still out, and the chances that there will be anything approaching consensus anytime soon look extremely slim. And we're not even talking about the crackpots who think global warming is a scare tactic dreamed up by communists and wild-eyed vegan tree huggers, or about the back-to-nature alarmists who think we should all unplug from the grid, live in log cabins and revert to animal traction to raise our crops.

Hayhoe – who served on a "committee of experts" that wrote a report on "climate stabilization targets" commissioned by the US Government's National Academies – reckons that the problem is not so much that a warmer planet is bad for our health, but rather that it "interacts with a vulnerability that we have already established." In other words, we've developed our society and our way of living around certain assumptions – about sea level, the availability of water, the livability of river valleys and so forth – but global warming could render those assumptions moot. "If we were hunter gatherers, we would just pick up and move somewhere else," she says. "The reason we care about rising sea levels is that 20 to 30 of the biggest cities in the world are within a couple of meters of sea level. We have settled and built infrastructure in places that could be flooded." She also has other examples. "Everywhere you look, whether it's issues of flooding or drought, with heatwaves or sea level rising, it's important to realize that climate change is interacting with the vulnerabilities that we're already aware of and just exacerbating risks we already have."

But Peiser would politely – if not altogether respectfully – disagree. While he claims to be completely "open-minded" about the human contribution to climate change, his Global Warming Policy Foundation (GWPF) is stacked with right-wingers and global warming skeptics, including some – such as physicist Freeman Dyson and MIT professor Richard Lyndzen – who are respected scientists. GWPF purports to be non-partisan and unbiased, but most of what it publishes on its website appears to be primarily concerned with discrediting politicians, scientists and advocates who insist that now is a better time to worry about the potential threat than when the effects may (or may not) become evident.

Peiser does not dispute that global warming is occurring (though he is convinced that the ten-year "flatlining" of average temperatures registered after 1998 may mean we've already reached a peak), and he doesn't disagree that CO_2 is contributing. But he is "agnostic" on how significant the human contribution is, and rather skeptical that global warming is going to cause much harm. "There is a warming effect, but the question is, to what extent, because the key question is, how do you perceive the threat or risk? And the question I always answer back with is: What are the empirical signals that should indicate that something extraordinary is happening that tells us that there is a risk and that it is serious?" Peiser then points to temperature rise, ice caps, sea level and extreme weather events and concludes that the data does not warrant undue alarm. For example, he says the average increase in sea level has been two millimeters a year for the last 100 years, with little change (others point to other data to dispute that assessment). So yes, he says, there have been changes, but we don't know enough about climate to understand the long-term effects, or how much has to do with natural variation and cycles. What we need, he says, is more money for better data.

At least some of that better data was made available in October by the Berkeley Earth Surface Temperature Project (BEST), which combined data from numerous studies and 39,000 reporting sites, and used sophisticated statistical methodologies to address anomalies such as urban hot spots and the unreliability of some of the reporting stations. Interestingly, BEST was funded in part by the conservative oil industry billionaires David and Charles Koch, who have generally been associated with the global warming skeptics. Many on the left were openly skeptical of BEST when it was launched, but the initial conclusion was that global warming is



Photography: James Balog.

real, the urban hot spots are pretty much irrelevant to the overall trend as they occupy such a small portion of the Earth's land mass, and even the reported "flatlining" of global temperatures is within the norms of natural variation and so probably not relevant to the overall trend of the last 50 or 60 years.

When Lomborg published The Skeptical Environmentalist in 2001, he was accused of playing loose with the climate change facts and originally condemned for scientific dishonesty by a Danish government investigation (he was subsequently exonerated). He was something of the *bête sauvage* of the environmental movement, but when I spoke to him in mid-October – he was in Lima, Peru, for a conference on fishmeal and fish oil, of all things – he was perfectly civil. Had he shifted towards the prevailing views on climate change, as reported? "I think what has happened is that the world has become more open to listening to skeptics and then they realize I've had a more pragmatic and smarter solution all along. I've been saying from the beginning that global warming is a real problem. I've also said it's often been dramatically exaggerated in importance and I think both things are still true. But I've also said we need to find smarter ways to tackle this because the current ways – the so-called Kyoto approach – namely cutting carbon emissions, is a very expensive way to do virtually no good."

Lomborg does believe in the anthropocentric model, at least in part and he also agrees that by the end of the 21st century, the economic costs could be very substantial (from 2 percent to 5 percent of GDP). But he argues we have even more important challenges to tackle over the shorter term, such as providing access to clean water and sanitation to the billions who don't have it. But Lomborg's biggest argument with the global warming alarmists is essentially a practical one: he doesn't think all the massively expensive efforts to cut carbon emissions will do any good. "What we've done wrong is we've thought it would be easy to get people to cut carbon emissions. The argument that CO_2 increases the temperature so we need to cut fossil fuels sounds simple. But the problem is, we don't burn fossil fuels to annoy Al Gore. We burn them because they power everything we like about civilization. They keep you warm, keep you cool, feed you, transport you and keep the lights on when the sun goes down. Telling people to do without is always going to be a non-starter. You can do a bit on the margins, but you're not actually going to dramatically reduce emissions."

So does that mean we might as well give up and move our cities inland and build giant dikes around low-lying Pacific islands? Lomborg doesn't address that question in particular, but his proposal does get to the heart of the problem. What we need, he says, are affordable alternatives to fossil fuels. "We'll only get people to stop using fossil fuels if green energy is so cheap that it's actually competitive – or preferably cheaper – than fossil fuel. And then of course, you've solved the problem." To get to that point, Lomborg says we should spend $100 billion a year on research and development into green energy. Part of that could be funded by a carbon tax, he says, part from other public funds and part from private investment.

What doesn't get factored in is the politics. For example, a carbon tax in the US is almost certainly destined to fail in Congress. Indeed, Hayhoe points out that right-wingers have engaged in a long battle to discredit climate science (even Peiser agrees that an ideological campaign has been waged against legitimate climate scientists, making rational discussion almost impossible). The result is that as the science has become more compelling, concern in the US about global warming has fallen from 72 percent in 2000 to 51 percent now. That there is an ideological divide is abundantly evident when those numbers are parsed: the percentage of Republicans in the US who think the seriousness of global warming is exaggerated has jumped from 34 percent in 1998 to 67 percent earlier this year (it fell slightly among Democrats).

Interestingly, Hayhoe, an evangelical Christian, says that when she talks about global warming at church gatherings in Texas, she finds that while many people are skeptical, they respond sympathetically to a simple argument she presents. "God gave humans the responsibility for the Earth and we are told to love our neighbor as ourselves. It is not a very loving thing to do to contribute to a problem that is actually causing damage and disease and death." And while she would disagree with Lomborg about the futility of cutting carbon emissions, Hayhoe doesn't disagree that alternative energy sources must be

developed. “We all want a healthy economy and a good life for ourselves and our children. We want clean air to breathe and clean water to drink. So what if we invest in renewable energy and decrease our dependence on foreign oil? What happens if we are wrong about climate change? We’d have a healthier local economy, a source of energy that’s not going to run out on us and healthier, cleaner air and water.”

Eminently reasonable, you might think. But then there’s Peiser, calmly offering an alternative view: “Can we afford to give up the usage of cheap fossil fuel and go for more expensive forms of energy? I question whether we’re at the point where it’s absolutely certain, and that if we continue business as usual, we face disaster.” As I listened to him, I thought about a different crisis – the European sovereign debt crisis. When Greece first said it might not be able to repay its debts, weren’t the economists saying the same thing about the need to act to head off a disaster three or four years ago, like climate scientists are telling us now? And wasn’t the response then more or less the same – we’ll take care of the problem if it doesn’t solve itself? A

Left and below: **Human-induced climate change is impacting all species on Earth, in some cases through lack of food and water, in others because there’s too much water instead of ice.**