

Environmental science in a post-truth world

A new year. A fresh start. Sound familiar? Yet this year seems anything but routine. Just when, thanks in part to US leadership, the world finally began to make tangible progress in addressing climate change, the US elected a President who labeled climate change a hoax and whose Cabinet nominees leave little doubt that climate denial will continue.

Equally problematic are the blatant disregard of facts and lack of respect for others and for civil discourse that were painfully evident in the US elections and around the world. So pervasive was the dismissal of “truth” that the Oxford English Dictionary named “post-truth” as the 2016 “Word of the Year”, defining it as “relating to or denoting circumstances in which objective facts are less influential in shaping public opinion than appeals to emotion and personal belief”.

Many of us have worked hard to make scientific information understandable, credible, relevant, and accessible to help inform (not dictate) decisions. Fortunately, many politicians and others join us in believing that decisions based on science will be better decisions. We believe that access to information underpins an informed democracy. We value critical thinking. But a post-truth world challenges that worldview. This new world has been deeply unsettling for many scientists, triggering anger, confusion, and angst. Responses have ranged from pledges to stoutly defend science, to talk of moving abroad, to the temptation to ignore it all and hope it disappears, to despair. Like many of you, I’ve pondered, “What can we do?” and “What should I do?”

First of all: take heart! I believe we can rise to this occasion with the boldness, energy, and creativity it demands. Not in a knee-jerk fashion, but one that responds to some of the underlying causes of our current dilemma. We must engage more vigorously with society to address the intertwined environmental and social problems that many have ignored, to find solutions, and to help create a better world. We must truly listen to and address the reasons why a post-truth world has emerged.

But we cannot do so from lofty perches above society; we must be more integrated into society. It is no longer sufficient for scientists in academia, government, nongovernmental organizations (NGOs), or industry to conduct business as usual. Today’s challenges demand an all-hands-on-deck approach wherein scientists serve society in a fashion that responds to societal needs and is embedded in everyday lives. Humility, transparency, and respect must characterize our interactions. I suggest three parallel efforts.

(1) Stand up for science by demonstrating its value and our relevance. Science needs to be trusted and valued, not seen as imperious, threatening, wasteful, or doom-and-gloom. Let’s shed the entitlement rhetoric and show, not just assert, the merits of science. Make science accessible. Speak in plain language, stripped of jargon. Show your warm, caring, human side. Engage citizens in doing science that produces useful knowledge and solutions. Create trust through shared experiences and values.

(2) Provide hope by highlighting the profusion of existing successes. Scale them up. Create more. There has been impressive progress on multiple fronts: renewable energy, fisheries reform, huge marine reserves, smart coastal planning, working with nature to adapt to climate change, and much more. Few are well known; none is at the scale needed. Look to these successes for hope and models. Focus on changing economic and social incentives to create conditions for durable positive changes. Tackle tangible problems with use-inspired science. Team up with policy-savvy, science-respecting NGOs and businesses with complementary skills and goals.

(3) Modify scientific reward structures and training to meet current needs. Many academic scientists already do some of the above, or want to, but must do so in addition to teaching, research, and service. We need to change our own incentive structure to recognize and reward engagement as a core responsibility. Not all scientists will want to (or should!) engage, but all should value and support those who do. Many of our students want to engage but fear being penalized or losing other opportunities. This must change. We should train, encourage, and support students to be better communicators and more engaged. We must fund engagement and training.

Yes, we face rough times ahead, but ecologists and ESA have been moving in the right direction for years. Now is the time for a quantum leap into relevance. And as we tackle these emerging challenges, don’t forget to carve out time to connect with nature and people so as to recharge our batteries and remind us of what’s important.



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