

when we tend to vilify and marginalize other voices. We need to have everyone at the table."

When pressed by Republican and Democratic committee members about climate change, Droegelemeier offered little, other than saying that bringing the weather and climate-modelling communities together could improve forecasts.

If confirmed, the meteorologist would join an administration that has sought to cut climate-change programmes at the Environmental Protection Agency and roll back federal regulations on greenhouse-gas emissions.

Scientists were largely encouraged when Trump nominated Droegelemeier to lead the OSTP, which helps to coordinate science policy and spending between federal agencies. And Neal Lane, a physicist who served as science adviser to former president Bill Clinton, remained optimistic. "No one in Congress is going to say extreme weather events are not important," he said. And linking those episodes

with climate science is vital, Lane added. "There's nobody better to do that than Kelvin Droegelemeier."

Other questions from lawmakers focused on scientific competition from China and on sexual harassment in research.

"We need to make sure we are the strongest research centre in the world," said Droegelemeier. And although welcoming foreign researchers is an important part of science in the United States, he said, it should be done with care.

He also spoke in favour of a recent National Science Foundation (NSF) policy that requires institutions to report agency-funded researchers who are found to have committed sexual harassment. "We owe all scientists a safe place to work," Droegelemeier said. If confirmed to lead the OSTP, he said, he will turn the attention of all agencies under his purview to this issue. He also plans to focus on increasing representation of women and people from under-represented groups in science.

"I think it's a bright day for science," said Lane, who had written to the Senate committee in support of Droegelemeier's nomination.

In his opening remarks, Republican Senator James Inhofe of Oklahoma said that Droegelemeier has impressive scientific qualifications. The meteorologist was vice-president for research at the University of Oklahoma in Norman from 2009 to 2018. He stepped down from his position on 20 August, in advance of his confirmation hearing.

Droegelemeier also served on the National Science Board, which oversees the NSF, under former presidents Barack Obama and George W. Bush. He is the current secretary of science and technology for Oklahoma.

The Senate committee will vote on 29 August on whether to advance Droegelemeier's nomination to the full Senate. If a majority votes for his confirmation, he will be the first non-physicist to take the reins at the OSTP since Congress established the office in 1976. ■

PUBLISHING

India targets fake journals

The government tells universities to stop promoting predatory publications.

BY SUBHRA PRIYADARSHINI

Most academics regard predatory journals as an irritant — if not a threat — to science. But in India, some universities have recommended the inclusion of such publications in the country's 'white list' of approved journals. Now the government is cracking down on this practice, which scientists say came about as a result of perverse government incentives.

"We will end this menace of predatory journals," Prakash Javadekar, the minister responsible for higher education, told parliament last month. Universities now have until the end of August to revise their recommendations for the journal white list to avoid predatory publications, which actively solicit manuscripts and charge authors hefty fees without providing the services they advertise, such as editing and peer review.

Predatory journals are a problem because research funding is wasted on deceptive publishers that don't deliver what they promised. A major international journalistic investigation, published last month in multiple media outlets, estimated that the number of papers put out by five major predatory publishers has tripled since 2013 — to about 175,000 articles.

Many publishers that host suspected predatory journals are based in India. And multiple studies have found that a high proportion of articles in such journals come



India's universities minister Prakash Javadekar has promised to end the "menace" of predatory journals.

from academics in the country^{1,2}.

Many Indian academics blame this situation on the nation's system for assessing academic performance. In 2010, India's higher-education regulatory and funding agency, the University Grants Commission (UGC), introduced a system for evaluating academics called the Academic Performance Indicator, which places considerable weight on the number of research publications. Universities must

use the indicator to hire and promote faculty members. But scientists have complained that this encourages academics and universities to focus on the quantity of publications, rather than their quality.

To reduce the practice of publishing in sub-standard journals, the UGC released a white list of approved journals in January 2017. The list contained approximately 32,000 publications indexed on science-citation ►

► databases such as Web of Science and Scopus, as well as more than 5,000 publications recommended by universities. But researchers quickly pointed out that it also included predatory journals.

Virander Singh Chauhan, who chairs the UGC committee that assesses and accredits its higher-education institutions and who oversaw the list, says that the predatory journals had been recommended by some universities, and that the UGC had learnt of this only later. Unless universities stop doing this, “nothing can get rid of fake journals in India”, says Chauhan. Currently, he says, universities can simply recommend journals, and make minimal effort to check a publication’s quality.

In May, the UGC removed 4,305 journals from the list on the grounds of poor quality, or because incorrect or insufficient information about the journal had been provided. (The group will update the list with universities’ revised recommendations.) Chauhan says that introducing stricter criteria for registering journals on the UGC list would reduce the number of predatory publications.

Ajit Kembhavi, an astrophysicist at the Inter-University Centre for Astronomy and Astrophysics in Pune, says the government’s plan to crack down on university-proposed journals is a good first step, but that the bigger problem is how universities are evaluated and funded.

A more permanent solution would be to decouple academic assessments from a researcher’s number of publications, says Kembhavi. He adds that more also needs to be done to promote greater awareness of predatory journals among academics in India and to educate them about research ethics.

In China, where some universities reward academics on the basis of the number of publications, the government is working on a blacklist of journals it deems to be of poor quality, or set up only for profit. Research published in these journals will not count towards promotion or grant applications, and the authors will also receive a warning.

Bhushan Patwardhan, a biologist at Savitribai Phule Pune University and a vocal critic of dubious publishing practices, says the Indian government should also show zero tolerance towards academics who publish in these journals. There are currently no repercussions for those who do this. He says the government should introduce rules similar to regulations introduced to detect and punish plagiarism at universities, which came into effect in July. “If faculty members are allowed to get away with such practices, what would stop them from doing this again?” says Patwardhan. ■

1. Xia, J. et al. *J. Assoc. Inform. Sci. Technol.* **66**, 1406–1417 (2015).
2. Shamseer, L. et al. *BMC Med.* **15**, 28 (2017).



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A nuclear blast can cause mass death and damage across a wide area.

PUBLIC HEALTH

US unprepared for nuclear attack

Growing threat from North Korea rattles scientists who study disasters and public health.

BY SARA REARDON

The United States is not prepared to deal with the aftermath of a major nuclear attack, despite North Korea’s efforts to develop nuclear weapons and the increasing tensions between nations overall. That was the blunt assessment of public-health experts who participated in a meeting last week on nuclear preparedness, organized by the National Academies of Sciences, Engineering, and Medicine.

The gathering is “an acknowledgement that the threat picture has changed, and that the risk of this happening has gone up”, says Tener Veenema, who studies disaster nursing at Johns Hopkins University in Baltimore, Maryland, and who co-chaired the conference in Washington DC.

Since the fall of the Soviet Union in 1991, the United States’s research and preparedness efforts for a nuclear strike have focused largely on the possibility of a terrorist

attack with a relatively small, improvised 1-kilotonne weapon or a ‘dirty bomb’ that sprays radioactive material.

But North Korea is thought to possess advanced thermonuclear weapons — each more than 180 kilotonnes in size — that would cause many more casualties than would a dirty bomb (see ‘Damage estimate’).

“We’re back to people saying, ‘We can’t deal with this.’”

“Now that thermonuclear is back on the table, we’re back to people saying, ‘We can’t deal with this,’” says Cham Dallas, a public-health researcher at the University of Georgia in Athens.

Veenema says that the science academies decided to do a study in November 2017, three months after North Korean leader Kim Jong-un threatened to launch a nuclear weapon at the US territory of Guam. The academies wanted to bring together the different government, academic and private sectors that would be