COMMENT:
JOY ZHANG

TRANSPARENCY IS A GROWTH INDUSTRY

A fierce public debate over the safety of genetically modified food has put pressure on Chinese researchers to engage with the public about their work.

China is a rising scientific powerhouse, but there is little public engagement in research. While most scientists internationally are accustomed to including in their research proposals strategies for public engagement to increase the impact of their work, many Chinese scientists are puzzled by this practice.

When I started researching China's life sciences governance 12 years ago, the general attitude towards science communication among researchers, clinicians and biobank directors was indifference. Although they agreed in theory that scientists should actively promote public understanding of science, they noted that funding decisions in China were shaped more by national and regional development plans than by popular opinion.

REUTERS/KIM KYUNG-HOON

In recent years, however, there has been a shift in Chinese scientists' attitudes towards public engagement. Among the approximately 40 life scientists who I visited in Beijing, Xi'an, Wuhan and Hangzhou in the past three years, all working in GM technologies, biomedical science and environment science, the majority thought it imperative to gain public support for their research.

This new perception is partly a response to domestic concerns. For example, in 2008, the Chinese government initiated a 12-year plan to promote GM technology with a generous 25 billion RMB (US$3.6 billion) investment. But in the following years, public concerns over food safety have markedly curtailed scientists' original ambitions. Despite strong government endorsement, public acceptance of GM products remains low.

The global reach of research is another reason for Chinese scientists' renewed incentive to enhance transparency and public accountability of their work. The pressure to collaborate with international peers has made Chinese investigators more mindful of the societal perceptions of their research, which can have implications for future collaborations and funding opportunities.

At the same time, there is a revival of government investment in the popularization of science, known as *kexue puji*, in Mandarin, *kepu* for short. *Kepu* is a catch-all phrase that incorporates a spectrum of activities, from media events, public exhibitions, community lectures to organized school tours. In 2015, 14.12 billion RMB (US$2 billion) was raised for science popularization, an increase of 77.39% from 2010, according to China's Ministry of Science and Technology.

> "CHINESE LIFE SCIENTISTS GRAPPLE WITH THE NEED FOR PUBLIC ENGAGEMENT."

But the increasingly willing Chinese scientists have few platforms to communicate their message. For example, universities still consider kepu as outside the realm of academic research. They believe that participating in public discussions does not help a scientist get promoted or secure a grant.

Most Chinese scientists I interviewed were also uneasy about speaking to the media. They worried that engaging with journalists could be politically fraught. While experts elsewhere act as autonomous professionals who speak for themselves, experts in the Chinese media are often selected by the authorities for their 'policy compatibility'. This means formal science communication channels become outlets for the government to vindicate its development agenda, which undermines the public's perception of the credibility of science. As a result, scientists believe they are unqualified politically to contribute to public outreach.

In March, a United Kingdom–China public engagement training workshop brought together Chinese policy advisers, scientific practitioners, civil society groups, and research institutions. At Huazhong University of Science and Technology in Wuhan, these groups shared their experiences and frustrations in identifying a roadmap for public engagement that accounts specifically for China.

One theme was how public engagement can enhance confidence in Chinese science. While the growing interest in engaging with the public is one example of China's commitment to promote responsible science, it is also a good indicator that the country's scientific governance is maturing.

Science communication in China still has a way to go. In the UK, public outreach only became a priority of research institutions following the House of Lords' Science and Society report in 2000, which reflected on the critical state of public confidence in science after the mad cow disease crisis. It took a culture change among UK institutions to embed a supportive infrastructure that recognizes and values the time and effort scientists put into public dialogue.

For China to establish public engagement that matches its scientific ambition, a similarly coordinated structural and cultural change is also needed. Stakeholders sharing candid reflections and mapping out a pathway for future outreach are encouraging first steps. ■

Joy Zhang is a senior lecturer in sociology at the University of Kent, UK.