Correspondence

Support Myanmar's embattled scientists and students

The tragedy unfolding in Myanmar – where I grew up and studied medical science threatens so much, including fragile gains in research made since 2010 (Z.-Z. Oo et al. Asian Bioeth. Rev. 10. 123-132: 2018). Studies of infectious diseases, including dengue, malaria and tuberculosis, had shown signs of promise; so had palaeontology research, forest conservation, civil engineering and physics.

Such embryonic progress was crushed by the military coup of February 2021. Since then, troops have occupied campuses, and arrested and killed many students, among others. These events hark back to the decades of dictatorship, civil war and genocide that pummelled universities as seats of sedition and left the education system in tatters.

Desperate academics and students are now at the forefront of a movement trying to restore democracy in Myanmar using civil disobedience and social media. In my view, they deserve more support from their counterparts in other nations. Professionals and societies in science, engineering, technology and medicine must appreciate the dangers of authoritarian regimes that use violence to distort facts and delegitimize institutions - wherever in the world those might be. Education, freedom of ideas and a respect for truth are essential preconditions for progress – as my nation's bloody past and present show all too painfully.

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China's publications: fewer but better

We disagree with your characterization of the decrease in the number of papers published by Chinese authors (Nature 591, 353-354; 2021). The fall is the result of a drive to improve the quality of research, not of a retreat from international collaborations.

The number of papers is only one of many ways of evaluating researchers' academic achievements. It might not be the best guide to scientific output, because China is now seeking to improve the quality, rather than the quantity, of its publications. Last August, for example, three of its top research societies jointly published a list of highquality journals in the fields of economics and management (see go.nature.com/3cadjdv) in a bid to raise standards. The China Association for Science and Technology has been doing similar work since 2019 and comparable lists exist for 30 fields, including geoscience and clinical medicine.

China has sought to strengthen international connections through work on the United Nations' Sustainable **Development Goals. For** example, the National Natural Science Foundation of China still considers exchanges with other countries to be important when assessing the performance of the projects it funds. International cooperation has always been an important part of Chinese scientists' achievements.

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China should track impact of pollution on health and the environment

China's latest five-year plan (see Nature 591, 353-354; 2021) includes five main ecological indicators. In our view, it should also include rigorous indicators for monitoring the damaging effects of pollution on human health and the environment. Targets can then be set to reduce the damage.

China monitors various aspects of air quality, such as the concentration of particular chemicals. But, given the rise in asthma and other respiratory illnesses in the population, a quantitative national assessment of how air pollution is affecting human health is urgently needed. China also needs to evaluate the impact of poor water quality and habitat structure on aquatic biota to enable it to set meaningful goals and objectives for mitigating these effects in bodies of water.

Once these data are available. China will be better able to make real progress towards improving human health, mitigating existing environmental degradation and limiting future damage.

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Sharing COVID data? Check these recommendations and guidelines

The Research Data Alliance COVID-19 Working Group's findings (see C. C. Austin et al. Wellcome Open Res. 5, 267; 2020) on what is needed for collaborations across disciplines align with calls to action from viral genomicists (E. B. Hodcroft et al. Nature 591, 30-33; 2021) and from scholars in the social sciences, arts and humanities (H. Shah Nature 591, 503; 2021).

At the European Commission's request, the working group last year published guidelines - crafted with participation of researchers in many disciplines – for data sharing in clinical medicine, omics, epidemiology and social sciences. These take into account community participation, Indigenous populations, research software and legal and ethical considerations.

We urged institutions to broadly consult stakeholders prior to and during data gathering and dissemination. While collecting and sharing data, researchers should consider the cultural, ethical and community contexts of data use. And technical interoperability should ensure that data can be reused in many disciplines and by others, such as clinicians and public-health authorities.

More than a year into the pandemic, we're keen to see these guidelines followed.

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