

Time for scientists to speak up and be heard

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A medical technologist working in one of the isolation units for COVID-19 patients in Bangladesh. Credit: Fahad Abdullah Kaizer/UN Women (<https://www.flickr.com/photos/unwomensiapacific/50037279293>) (CC BY-NC-ND 2.0) (<https://creativecommons.org/licenses/by-nc-nd/2.0/>)

Science and scientists are being viewed more positively by people across the Asia-Pacific, Europe, the US and other regions and countries as the COVID-19 pandemic peaks. Yet, ironically, despite the positive perception, people do not take them seriously enough.

A new international survey by Pew Research Center finds scientists and their research are widely and positively viewed and large majorities believe government investments in scientific research yield benefits for society.

But the voices of politicians carry more weight than those of scientists in today's public forums. If only people listened to scientists more, they would be wearing masks, washing hands and maintaining social distance to keep COVID-19 at bay. If people took scientists seriously, they would cut down on carbon dioxide pollution of our environment and slow down climate change.

Yet, despite the scientists' reputation and credibility, [world leaders](#) and the men in the street still do not listen to them.

What the Pew Research Center study did not ask is why, despite the credibility and trust ratings of science, the public still ignores advice from scientists in general, and of [health experts](#) in particular.

People in the US and Europe, in particular, have not been following strictly the simple rules suggested by their scientists to fight the COVID-19 pandemic—wear masks, wash hands and keep social distance. They do not follow unless mandated. So the pandemic rages on. Many people are also notoriously resistant to science-tested vaccinations.

As to the unasked question (by Pew Research Center) of why the public does not follow the advice of scientists assiduously, the answer may be found in the reply to another question asked in the survey: that when it comes to solving pressing problems, it is better to rely on people with practical experience than people with expertise.

Scientists may have the expertise on science but no experience in solving real life problems, if that makes sense at all.

Experience versus expertise

Who are these people with practical experience?

Unfortunately, we have no exact definition of the term. They could include politicians who govern and solve problems on the fly. They could include people who learn on the job, people with accumulated years of experience doing something well, not necessarily learned from books. To some extent, and strictly speaking, the concept might even be anti-science.

Also, the reality is that most practical decisions in this world are made by decision makers who are administrators, rulers, governors and politicians with very little academic credentials and minimal acquaintance with science.

Case studies: politics over science

One example of this tendency for politics to overrule science is the case of the dumping of truckloads of white dolomite sand along the shoreline of Manila Bay sometime in August this year. The dolomite sand was dumped by the bureaucrat head of the Department of Environment and Natural Resources. The mayor of Manila hailed the project as a move "to rehabilitate polluted Manila Bay."

But the dumping of artificial white sand drew a backlash from [environmental groups](#) and experts who say the project lacked the necessary environmental impact studies.

The crushed dolomite boulders, usually used for road construction and landscaping, came from a quarry in a province in central Philippines. Environmentalists fear that the dolomite contains hazardous dust

particles and heavy metals such as lead and mercury which would contribute to the pollution and acidity of Manila Bay. Moreover, experts pointed out that it's just a waste of money since it will easily be washed out by storms and tides to which an official from the environment department, a journalist by profession, lashed out on experts as "paid" hacks.

The bureaucrats and politicians prevailed and the dolomite in Manila Bay has been eroding slowly, giving way to the natural black sands.

Indonesia provides another example where business and politics rule over science. The Indonesian forest fires have been a predictable annual ritual in past decades. They are largely blamed on palm oil plantations, logging firms and farmers, all of whom resort to burning vast tracts of rainforest and peat lands to clear them for planting.

The fires impact air pollution in Sumatra, Singapore, Malaysia and Thailand—reaching levels hazardous to human health. Science tells everyone that smoke is hazardous to people's health, but the forest fires continue and have become an annual ritual.

There is the multi-country Agreement on Transboundary Haze Pollution which has been negotiated since 2002. It took 11 years for Indonesia to finally ratify the agreement in 2014. But the last time we heard, Indonesia had yet to enact regulations at the national and local level. Meantime neighbouring countries suffer from the smoke and haze coming from that country year after year when the season for burning comes. It remains business and politics over science.

Time to speak up

We have suggested in earlier columns that we require minimum academic requirements for politicians to run for office. By making

science credentials a requirement for those who run for public office, science can inform and influence political decisions.

We had an experiment in the Philippines years ago when we elected a science literate person to represent the science sector in Congress. But the experiment was short-lived. Our candidate lost in the next election because he did not know how to kiss babies, shake hands, engage in small talk, and embrace the man in the street.

Short of these suggestions, it is time scientists speak up and make their voices heard—and make the public listen by speaking in the language of the people. For far too long, we have allowed politicians to take centre-stage and lead the world, like the Pied Piper, to millions of unnecessary deaths from the COVID-19 virus, and allow environmental pollution and [global warming](#) to worsen.

The US with its outgoing, anti-science President had opted out of the Paris Agreement, which mandated limits to global warming while the other major industrial nations stand by doing nothing to defend the Treaty.

We have also urged scientists to "venture out of their laboratories and classrooms and take stands on science issues. We cannot leave the solution of our society's problems only to the politicians who run our governments."

Science communication, however, is not a one-way street. The public, on the other hand, should start taking [science](#) and scientists seriously. We ignore them at our own peril. The COVID-19 pandemic will get worse before it gets better and the hour of the [climate change](#) catastrophes is near.

To paraphrase from one of our favourite Bible verses from Ecclesiastes,

there is a time to keep silence, and a time to speak. Now is the time for scientists to speak and the people to listen.

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