



## Showcase scientists from the global south

The contributions of researchers in the developing world must be sought and recognized, says Dyna Rochmyaningsih.

A new species of orangutan, mud volcanoes that bury villages, Zika virus: there is no shortage of science stories emerging from the ‘global south’, a group of countries across Africa, South America and Asia that endured colonialism and are now struggling to improve their economies. But we need to pay attention to which scientists are telling us this region’s stories.

Researchers in the global south take part in cutting-edge research, yet their names usually fall under the shadows of scientists from the West. Although those coming to the region for research are often more extensively trained than local scientists, that is not the only reason they usually receive more credit.

At least one randomized, blinded study points to bias against researchers from the global south. In an experiment framed as a speed-reading exercise, 347 English clinicians rated the same 4 abstracts twice; each time, the abstracts were given different author affiliations. Abstracts supposedly originating from leading US and German universities scored higher than identical ones attributed to top universities in Ethiopia and Malawi (M. Harris *et al. Health Aff.* 36, 1997–2004; 2017). The country of origin mattered more for rankings than the title of the journal. The study authors predict that research from low-income countries is “discounted prematurely and unfairly”.

Authorship position is another big issue. According to Danang Birovosuto, an Indonesian physicist now at Nanyang Technological University in Singapore, who has worked in scientific institutions across the globe, researchers with Indonesian affiliations are seldom listed as the first or lead author — in part because they rarely contribute the biggest slice of funding. This imbalance keeps these scientists from proposing research and developing ideas. And because the most prominent researchers have the most success in future funding cycles, the situation is self-perpetuating. It will continue unless the scientific community confronts it head on.

Better acknowledgement would help. For international projects, scientists from the south might be the 6th or 16th author, yet the work could not proceed without them.

Take the discovery of new primate species reported late last year (A. Nater *et al. Curr. Biol.* 27, 3487–3498; 2017). It was an Indonesian scientist who collected the 500 orangutan skulls from 21 institutions around the world and did morphological analyses. It was also Indonesian scientists who mediated the complicated process of gaining research access to pristine forests. This was rarely acknowledged in news stories. Such details are fascinating, important and too often missing from the literature and related news coverage.

No wonder some relationships become strained. Last year, *The Jakarta Post* ran stories about biopiracy of specimens of insects and

marine life. I know of at least one researcher who has worked with Western scientists expecting to be an author, only to find that manuscripts have been prepared, submitted and published without them being informed of any of these steps, or being listed as an author.

Because of these concerns, the Indonesian Ministry of Research, Technology and Higher Education has placed conditions on foreign scientists who hope to work in the country’s pristine areas, such as in parts of the Banda Sea: an Indonesian scientist must lead the research. The goal is to make sure that expertise on science originating from Indonesia is retained in Indonesian researchers.

An example of this process at its best can be found in work on *Homo floresiensis*, a hominid discovered in 2003 and nicknamed the hobbit. The late archaeologist Michael Morwood, of the University of Wollongong in Australia, respectfully cultivated long-term collaboration with Indonesian researchers and, because of this, succeeded in gaining access to sites. The first papers on the hominid rightfully gave Indonesian authors prominent positions; the researchers have thrived since.

Collaborators should set clear expectations and encourage local researchers to participate in tasks that will be formally recognized. Western scientists should also explicitly solicit input: southern scientists can be reluctant to critique study designs for fear of disturbing collaborations. Southern scientists must look beyond local networks and proactively seek international funding.

When publishing science from the south, senior Western authors can take simple steps to share credit. They should provide short descriptions of authors’ contributions. When they give interviews, they should emphasize the roles performed by local scientists, and encourage journalists to interview them.

Journalism should also strive to include more scientists from the south, both those who participated in the research and those who are in a unique position to provide comment. In one story I reported on, about a tropical disease caused by roundworms, an interview with an Indonesian scientist showed how World Health Organization recommendations would have limited effectiveness because they were not tailored to species differences across the islands.

SciDev.Net, a website that covers science and technology in the developing world, led the way in fostering such skills and connections. ‘The Conversation,’ a website established by a group of universities, provides a good platform for southern scientists to air their views.

We must all work together to bring scientists from the global south out of the shadows. ■

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