



Employees, and thousands of paper cranes, inside the Fukushima plant three years after the accident.

TORU HANA/AF/GETTY require scientists to publish part of their results in international journals even for policy-oriented research, whose target readership obviously prefers Japanese to English. Many papers, although tailored to the policy context of Japan, would appeal to global experts because energy and environmental issues are global. Large-scale programmes of the science-and-technology ministry, and strategic research funds of the environment ministry, should take the lead. Because policymakers need deliverables to be communicated in Japanese as well, this will increase the burden on researchers, which should be reflected in their funds.

In April, Japan will start a new round of its Science and Technology Basic Plan, a cabinet-level, five-year policy on research and innovation. It is good to see that building an international researcher network is one of the key agenda items. Japan must make that vision into a reality.

Globalize research. Strategic, policy-oriented research programmes in Japan should be designed so that they can benefit from international experience and domestic experience can be shared globally. For example, the Collaborative Laboratories for Advanced Decommissioning Science (CLADS), established as a research base for the decommissioning of the Fukushima plant, should be more outward-facing.

Decommissioning involves many disciplines, including nuclear engineering, meteorology and oceanic-risk assessments, ecology and remediation. By soliciting

international research proposals, CLADS should involve more researchers from elsewhere in Asia, where many countries have nuclear ambitions, including China, South Korea, India and many southeast Asian countries. Working with overseas scientists, CLADS should publish some outcomes in English.

Another opportunity is Future Earth, a ten-year global sustainability research initiative that puts interdisciplinarity at the forefront

“Going global is the key, and will pay dividends.”

alongside stakeholder engagement⁹. For its contribution, Japan should elevate energy research to a key component. Japan has several advanced energy technologies, but to move them into the market at scale requires outside input, particularly when it comes to innovation policy.

As Asia becomes the centre of the global energy economy, the time is ripe for Japan, as part of the Future Earth platform, to embark on a truly interdisciplinary and international project, and colleagues from neighbouring nations should do the same. Such initiative should receive rigorous academic oversight from an international advisory body.

BETTER TOGETHER

This year is also the 30th anniversary of the Chernobyl nuclear accident. In Europe, and Germany in particular, that disaster spawned fresh thinking on many fronts. The German book *Risk Society* by Ulrich Beck, published in 1986 soon after the accident, explored how

risks from technology and industrialization shape modern society.

The disaster catalysed a transition away from nuclear to renewables, which is now gathering renewed momentum, backed up by interdisciplinary studies on energy transformation. As in Germany in the late 1980s, Japan has seen many fresh attempts to carve out new directions for research, but so far such efforts have been fragmented and scattered, many along disciplinary lines.

Five years on from March 2011, problems abound. Fukushima and the Tohoku areas are yet to recover, and the transition towards renewables has been rocky. Most, if not all, of these issues are fundamentally political and socio-economic³. But scientists, social scientists and their funders must engage. Without better connections across disciplines and nations, the science-policy interface cannot improve. The people of Japan deserve better. ■

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CORRECTION

The Comment ‘Current climate models are grossly misleading’ (*Nature* **530**, 407–409; 2016) gave the wrong citation for the review about IAMs use in climate economics. The correct reference is J. D. Farmer *et al.* *Environ. Res. Econ.* **62**, 329–357 (2015).