



Summit Pledges Global Data-Sharing

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TOKYO—Representatives from 47 nations have endorsed a 10-year plan to share Earth observation data, identify gaps in observational efforts, and come up with ways to fill them. The agreement, reached at the second Earth Observation Summit here on 25 April, could help improve forecasting of abnormal weather, understanding of climate change, and management of natural resources.

The idea behind the effort, called the Global Earth Observation System of Systems, is straightforward: Dozens of observational systems are now generating reams of data that could be far more powerful if they were combined and widely disseminated. But achieving that goal means overcoming major technical and political hurdles. “We’re just at the start of resolving a lot of issues,” says Akio Yuki, deputy minister of Japan’s Ministry of Education, Culture, Sports, Science, and Technology.



Four-square for cooperation. Earth Observation summiters include (from left) American Conrad Lautenbacher, South Africa’s Rob Adam, Japan’s Akio Yuki, and the European Commission’s Achilleas Mitsos

“One of the big barriers to combining these systems is to find common data formats,” says Paul Gilman, assistant administrator for research at the U.S. Environmental Protection Agency. That will be the first order of business under the new plan. Another hurdle will be agreeing on what data will be shared. Yuki says Japan, for example, won’t disclose fisheries data that could help Chinese and Korean fleets plying their shared oceans. Some countries also may be reluctant to share information that has national security value.

There are also fiscal challenges ahead. Maximizing the benefits from existing observational schemes “will require a significant effort in capacity building for developing countries,” says Patricio Bernal, executive secretary of the International Oceanographic Commission. A current global network to monitor sea-level conditions, called GLOSS, has fallen short of its goals, says Conrad Lautenbacher, head of the U.S. National

Oceanic and Atmospheric Administration, in part because of a lack of local capacity. The costs of such efforts “will need to be calculated,” says Takeo Kawamura, Japan’s minister of education. U.S. officials have said that the industrialized world needs to stand ready to foot the bill.

The idea of a “system of systems” was first proposed by the United States and endorsed by the eight largest industrialized nations at a summit meeting last summer in Washington, D.C. The effort “is government-led but science-driven,” says Rob Adam, director-general of South Africa’s Department of Science and Technology and co-chair of an ad hoc group set up after last year’s summit.

Despite the slew of unresolved issues, participants at the second summit are satisfied with the plan they have adopted. “It seems a simple paper,” says Achilleas Mitsos, director-general for research at the European Commission. But behind the parchment lies a significant amount of work, he says, and the hope that it “will lead to action and not just wishful thinking.” –DENNIS NORMILE