
Executive summary

This report assembles an inventory of significant global scientific organisations and collaborative opportunities in which Australian scientists and scientific institutions might reasonably be expected to be involved, and maps the extent to which Australia is currently engaged in these programs and the benefits that flow from that engagement. The nature and extent of any gaps between current participation in global scientific programs and potential opportunities are assessed. Mechanisms to enhance Australian scientific involvement in global scientific programs, including the mechanism of subscriptions to international scientific organisations, are also evaluated.

The report finds that Australia is reasonably well engaged with global scientific activities. Approximately 100 major global scientific organisations are identified, along with many more significant activities and organisations under these. Australia is formally engaged to variable degrees with almost all of the global scientific organisations in which Australian scientists and scientific institutions might reasonably be expected to be involved.

The Australian Academy of Science administers funds on behalf of the Commonwealth government to engage with international scientific organisations with a minimum of bureaucracy and administrative cost for maximum effect. An analysis of the subscription levels and mechanisms to the major global scientific organisations suggests that Australia is paying at appropriate levels to most of these organisations. However, because the subscription levels are constantly rising while the government funding received by the Academy for support for international activities has remained essentially static for many years, the Academy is under increasing pressure to meet its international obligations. This has forced the Academy to reduce or cut its membership subscriptions to some global scientific organisations and reduce its funding to support National Committee activities and travel support for Australian voting delegates to General Assemblies of ICSU Scientific Unions. This reduces the benefits from Australia's engagement in global science activities, and is preventing Australia's scientific community (via the Academy) from formally engaging with new and potentially worthwhile global activities that are emerging. The Academy welcomes further discussion regarding funding for subscriptions to global scientific activities in the upcoming five-year review into the Academy's responsibilities.

Several clear benefits from Australia's formal engagement with global scientific organisations are identified in the report. From Australia's relatively modest formal membership contributions, it has a high number of scientists involved in leadership roles in global scientific organisations. Australia's formal engagement has also resulted in a large number of significant international scientific conferences being held in Australia, including the General Assemblies of almost all of the ICSU Unions (which attract up to 6000 delegates). Other benefits include the development of formal and informal links with overseas scientists (resulting in increased international collaboration in Australian scientific publications), involvement in cutting-edge international science (particularly science that can only be carried out on a global scale), showcasing of Australian science, leveraging off scientific funding provided by larger nations, political influence and capacity building in developing countries (particularly in Australia's region).

Although Australia is well engaged with the main global scientific organisations, this study has identified several strategically important gaps. It is recommended that Australia closes these gaps by becoming a formal member of the following organisations:

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- An Integrated Programme of Biodiversity (DIVERSITAS);
 - International Group of Funding Agencies for Global Change Research (IGFA);
 - International Human Dimensions Programme on Global Environmental Change (IHDP);
 - Integrated Ocean Drilling Program (IODP); and
 - Millennium Ecosystem Assessment (MA).

Australia should also consider rejoining:

- the Committee on Data for Science and Technology (CODATA); and
- the Scientific Committee on Problems of the Environment (SCOPE).

These organisations deal with scientific topics of global prominence that cut across national boundaries, and complement the activities of global science organisations to which Australia is already a member. Australia must formally engage with these organisations, and maintain existing arrangements with other globally relevant scientific organisations, in order to maximise the benefits of Australia's linkages with global scientific activities.