

GRANTS PROGRAMME 2010

APPLICATION FORM

(Valid for ICSU Members only)

(Applications must be submitted electronically to maureen@icsu.org)

Deadline for submission is 1 December 2009

Lead applicants may submit no more than one application. **A ceiling of Euro 30,000 is imposed on all applications.**

Project title: Education and Outreach Lessons from IPY

Requested amount (€):30,000
(Maximum Euro 30,000)

Applicants:

Lead Applicant (Organization): Scientific Committee on Antarctic Research

Contact name & Designation: Dr Michael Sparrow, Executive Director Designate

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Supporting Applicant(s) (Organization(s): International Arctic Science Committee

Contact name(s) & Designation: Dr. Volker Rachold, Executive Secretary

Email address: volker.rachold@iasc.info

How will support benefit ICSU's strategic goals as outlined in its Strategic Plan 2006-2011 (max. 10 lines):

The CSPP and Executive Board have agreed that an ad hoc group should be established to define ICSU's future role in relation to science education (ICSU Strategic Plan, pp.36-37), particularly as planning begins for the next strategic plan, 2012 – 2017. Meanwhile, IPY, an ICSU Interdisciplinary Body, has established, on a temporary basis, innovative and effective international education and outreach programmes, and associated international networks, while stimulating, on a national basis, perhaps the largest focused investment in science education in recent times. Thus the IPY education programme represents, in microcosm, a wealth of practical and real-world information by which to address shared IPY and ICSU

questions: what has happened, what external factors (e.g. toward global environmental literacy) pertain, and what should happen next (IPY) and in the future (ICSU).

Project plan (max 3 pages)

State clearly the objectives of the project and the beneficiaries. Elaborate on its relevance to the review criteria – e.g., innovative nature, interdisciplinary and international nature, visible and measurable outputs, relevance to the ICSU Strategic Plan 2006-2011 and priorities of ICSU Regional Offices. If the activity targets young scientists, women scientists, and/or scientists from developing countries – please refer to it here.

- Objectives (1/3 page)

This project aims to conduct an initial assessment of effective science communication based on IPY Education, Outreach and Communication (IPY EOC) activities, experience and networks.

Specifically it aims to:

- Conduct an inventory and begin planning for a general assessment, from an international viewpoint, of EOC strategies, programmes, and networks active during IPY;
- Identify key target groups that need to be continually informed about the latest polar (and general scientific) research;
- Determine key activities to sustain the dissemination of polar research (science information) to target groups;
- Identify the factors and mechanisms by which IPY successfully stimulated and inspired the enthusiastic involvement of early career and future scientists;
- Provide guidance on the incorporation of early career researchers in large-scale science planning and research;
- Construct a set of 'lessons learned' from the IPY EOC experience relevant to engaging the public in ICSU's international science research programmes; and
- Discuss the roles of IASC, SCAR and other key partners, within and outside of ICSU, who contributed to IPY's success and who can play a role in future ICSU education programmes.

- Project description (2 pages)

The IPY activities brought together teachers, museum education coordinators, students, media officers, journalists, artists, film-makers, expedition leaders, radio producers, book publishers, programme managers and researchers (especially young and early career researchers) in a burst of international and coordinated energy. We believe their accomplishments will show that existing and perceived barriers to broad science education, including language, age and culture, can all be overcome by cooperation, communication, and enthusiasm. In other words, thanks to innovative ideas, creative and user-friendly tools, extensive partnerships, and, always, care and support of volunteers, the IPY education, outreach and communication teams helped IPY achieve the goal: Polar Science with Global Impact.

However, how can one quantify the IPY impact? How can one assess its impact, particularly its longer-term impact? What lessons can and should we draw from for on-going, sustained science education, and for the inclusion of EOC in other and future ICSU programmes?

The small group, all volunteers, at the centre of IPY EOC know these questions well and feel keenly the need to translate momentary success into long term impact. They continue to carry the IPY EOC coordination tasks up to and through the IPY Oslo Science Conference

(June 2010). As a consequence, they do not have time or means, without additional organization, coordination, and assistance, to develop even the plans and metrics by which and with which to answer the IPY impact questions. They also recognize that, as insiders, they need, and the IPY programme needs, external viewpoints and assessments. Further, if, as we contend, the IPY information represents timely, unique, and valuable information for the ICSU science education group, then we need some immediate action to capture that information in useful form.

We propose a three step process:
Inventory (March to June 2010);
Preliminary assessment (July to October 2010); and
Recommendation (by early 2011).

Inventory: Even within well-organized national IPY programmes, the national committees do not have a good understanding of the full suite of funded and spontaneous, formal and informal, education and outreach activities. However, IPY has six activities, already underway, that can produce a reasonable inventory of EOC activities. These include the ongoing or up-coming programme assessments by those countries that made substantial formal investments in IPY EOC; the participant and partner lists for the IPY Polar Days (and Weeks); the reporting processes by the IPY Projects, all of which should have had EOC components; the IPY Polar Resource Book (PRB), which has stimulated a broad range of submissions from formal and informal activities and from numerous countries; the IPY Oslo Science Conference which will stimulate many abstracts for its 6th Theme on Education and Outreach; and APECS (Association of Polar Early Career Scientists), whose members played leading and helpful roles in many many local outreach activities. We can say, therefore, that a wealth of potential information exists, but that without directed and supported effort, will not self-assemble into a useful inventory. IPY IPO can provide assistance with this inventory activity, but does not have the staff or duration necessary to make the effort succeed without.

Preliminary Assessment: Under the guidance of SCAR and IASC, energized by APECS, and with a few partners from the IPY EOC communities (after the PRB publication and the Oslo conference activities), one or more members from the ICSU science education group, and perhaps an external expert or two, a core team will produce a preliminary assessment, basically to determine what information exists and what form and formats of assessments might apply. This EOC assessment steering group will meet first at the IPY Oslo Science Conference.

Recommendation: The core group above will produce a draft outline and a workshop plan, to target a larger group of IPY and ICSU partners for a substantial workshop in late 2010, focussed on two products: recommendations for the polar community on future education and outreach activities and input of lessons learned and other information as requested to the ICSU science education group.

- Relevance to review criteria 1/3 page)

These products, an inventory, a recommendation on the future of EOC for the polar community and tangible, experience-based information for the science education group, will have broad impacts within ICSU. We contend that many ICSU Unions will move quickly to emulate some of the IPY examples, and that many of the ICSU national members will find the inventory broadly useful as an example of possible future programmes and activities. We believe that the science education group will welcome, indeed require, the inclusion of recent and relevant information from IPY, information with visible and measurable impact. And we

believe that the ICSU regional offices will each identify their roles in the IPY activities as a basis for planning future programmes, particularly in developing and supporting early career scientist networks. Almost by definition, the IPY products have high international and interdisciplinary aspects.

- Targeting of priority groups (1/3 page)

The IPY APECS represents a rapid and so-far successful example of recruitment and retention of young/early career, female and minority scientists. More broadly, the IPY EOC activities reached non-polar countries and, in many cases, targeted non-traditional groups and communities with their information and recruitment. We believe that the inventories, preliminary assessments, and recommendations produced here will often-times represent unique, and uniquely recent, experience relevant to larger questions of broad international education and capacity building.

Work plan (max 1 page)

Specify time schedule, major events, methodologies to be used, leadership and management structure, and key milestones in the implementation process, etc.

The project consists of 3 major steps, as described above. The main coordination of this project will be carried out by APECS, with assistance from SCAR, IASC and IPY EOC committee members. Communication will mainly be through email, Skype, and teleconference calls, with in-person meetings at the IPY Oslo Science Conference and in an October meeting in Tromsø, Norway to review data and compile recommendations.

Inventory of education and outreach during IPY (March - June 2010)

* IPY International Programme Office and EOC Committee will compile statistics from internationally coordinated efforts such as IPY Polar Days/Weeks, the Polar Resource Book activities and involvement, website usage data, and other assessment tools already in place.
--- Lead by the co-chairs of the EOC Committee.

* APECS will design a survey to be sent to all IPY national committees and projects asking for a brief summary of their activities: what they did, general demographic information of participants and target groups, methods and resources used, aspects that will continue after IPY and advice for others. The survey will be available online through the APECS website.
--- Lead by the APECS Education and Outreach Committee.

* The IPY EOC Assessment core group (described above) will be established consisting of people from the ICSU family, members of SCAR, IASC, and APECS.
--- Lead by IPY IPO

Preliminary Assessment (June - October 2010)

* Results from the Inventory will be presented in an IPY EOC meeting at the IPY Oslo Science Conference to the core assessment group.

--- IPY EOC Committee will organize a meeting with the assistance of the IPY Oslo Science Conference Secretariat.

* A short report will be written summarizing the inventory and initial analysis of information gaps, identification of major themes of EO activities, and preliminary recommendations of successful projects that could serve as examples for other programmes within ICSU.

--- Report will be written by the core group, with coordination from APECS.

Recommendation (October 2010 - Early 2011)

* The core assessment group will organize a large workshop with ICSU representatives, SCAR, IASC, and APECS delegates, and other interested partners. In this workshop

preliminary assessment will be presented. The larger group will work together for 2 days to compile recommendations for ICSU organizations and others on how to implement the successful education and outreach activities based on examples from the IPY.

--- Core group to organize workshop, with coordination from IASC and SCAR.

* Final report on recommendations will be compiled and written by the core group and other partners from the workshop and sent to ICSU for distribution to partners.

--- Report will be written by the core group, with coordination from APECS and guidance from IASC and SCAR.

Expected results (max 1/2 page)

What outcomes are expected from the project: publications (including audience and dissemination plan), new programme initiatives, etc? Explain how an ICSU grant can strengthen your own overall programme of work, e.g., leveraging funds from other sources, enhancing visibility, enhancing impact or role of your organisation. Assess potential follow-on action that may result from the activity.

In total, the IPY Education, Outreach and Communication programme represented one of the largest international education networks and coordination efforts ever attempted, and the combined national investments in IPY EOC represent perhaps the largest single investment in science education ever. The outcomes of this project - an inventory, preliminary assessment and plans for a more substantive assessment, and recommendations for future activities in polar science education and in science education generally, will prove immensely valuable for the ICSU community. They will prove vital as ICSU plans future activities in science education.

The Role of Supporting Applicants and Other collaborative partners (max 1/2 page per partner)

The role of each supporting applicant (minimum one from the ICSU family) (and other partner organizations such as UN agencies, if relevant), should be clearly described. New partnerships, between organisations that do not routinely collaborate, are particularly encouraged and should be clearly identified as such.

- Partner 1

SCAR will provide advice and guidance to the project through its reinvigorated Capacity Building, Education and Training (CBET) group (as well as the bipolar and legacy groups with IASC as outlined below) and by providing staff time to assist in management of the project. It will work with the other partners to ensure the aims of the project are met.

- Partner 2

IASC will provide guidance and assume the responsibility for steering the project together with SCAR after the closure of the IPY IPO, to make sure the project management is secure for the full duration of the activities described. IASC's main instrument for supporting the project will be the joint SCAR-IASC Bipolar Action Group and its successor, the proposed Joint SCAR-IASC IPY Legacy Committee (SI-ILC).

- Partner 3

IPY IPO will serve as the main source of information and until the closure of the office in June, the needed coordination support for this activity. The networks from IPY will be continued after the closure of the office by key individuals (to be identified) until

recommendations from this project can be implemented.

- Partner 4

APECS will be a critical partner in this activity to help provide the necessary ties between IPY EOC activities and the SCAR/IASC leadership. The APECS Education and Outreach committee will provide the necessary energy and capacity to fill any gaps in knowledge that might occur from the closing of the IPY IPO to the completion of this project.

Project budget

Amount requested from the ICSU Grants Programme:

Estimated breakdown of cost

| | |
|-------------------------------------|----------|
| Research / Content | € 5,000 |
| Travel / Accommodation for Meetings | € 17,000 |
| Training / Teaching | € |
| Planning / Coordination | € 8000 |
| Other (specify): | € |

€30,000

Amount provided by the applicants:

€

Amount provided from other sources (specify):

€