SPOTLIGHT

Enhancing Global Ocean Science Networks: The Impact of SCOR's Travel Grant Initiative

By Emily Twigg, Patricia Miloslavich, Edward R. Urban Jr., and Rebecca Zitoun

INTRODUCTION

The capacity sharing approach of the Scientific Committee on Oceanic Research (SCOR) focuses on supporting opportunities for individual ocean scientists and students within SCOR's portfolio of scientific activities and through targeted capacity development opportunities (Morrison et al., 2013; Urban and Seeyave, 2021; Miloslavich et al., 2022; Seeyave et al., 2025, in this issue). This article focuses on SCOR's travel grant program that supports the attendance of early career researchers (ECRs) from developing countries at scientific events (see https://scor-int.org/work/capacity/travel-grants/ for a description and application).

PROGRAM DESCRIPTION

Since 1984, SCOR's travel grant program has provided financial support to organizers of conferences, workshops, trainings/courses, and other meetings with an ocean science component, enabling the attendance of ECRs from developing countries.

SCOR's Capacity Development Committee reviews organizers' applications based on their relevance to SCOR's work, quality, efforts to mentor and engage ECRs (Urban and Boscolo, 2015), and transparency of their selection process. Typically, the committee awards between $3,000 and $10,000 USD per event depending on the available budget. The sliding scale allows SCOR to fund most applications deemed by the Committee to be appropriate, with higher amounts going toward SCOR-related activities.

Event organizers select the recipients, who are approved by SCOR to ensure they meet the following criteria: (1) current student or within 10 years post-degree, (2) involved in marine-related sciences, (3) residing in a developing country,[1] (4) presenting at a meeting or participating in training, and (5) have not received support from SCOR in the prior two years. Exceptions have been granted to support expertise or perspectives crucial to a meeting's objectives.

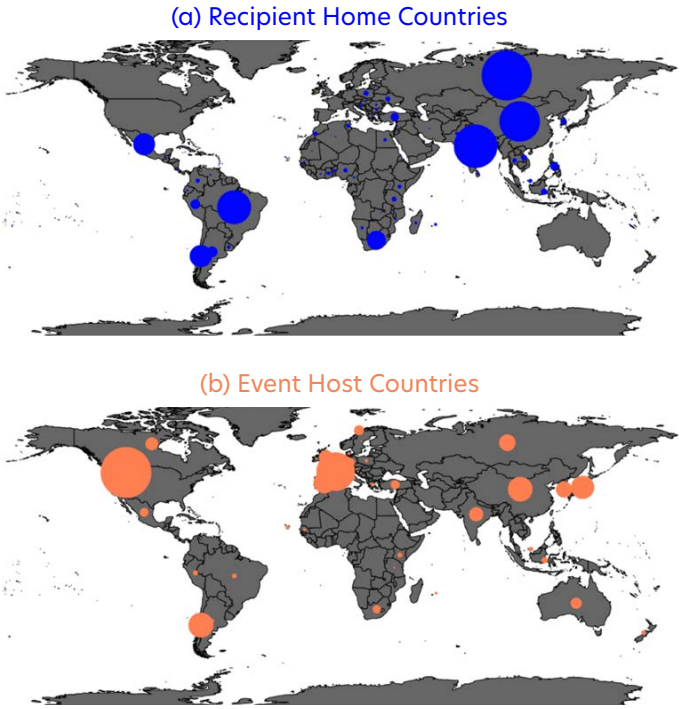

FIGURE 1. Map of relative proportion (indicated by circle size) of (a) travel grant recipient home countries and (b) event countries.

RESULTS

SCOR has maintained digital records of supported events and recipients since 1999 (i.e., activity's name, date, and location, and recipient's name, country of residence, and award amount). From 1999 through 2023, SCOR recorded over 1,300 recipients receiving more than $1.26 million USD in total to participate in ~280 activities. The average award per recipient is about $1,000 USD, although this varies because some recipients receive full coverage of their expenses while others receive partial travel support—decisions made by the organizers.

Recipients from 83 countries have been supported (**Figure 1a**). Russia, India, China, and Brazil have the highest number of recipients, each with well over 100 individuals supported. They are followed by Mexico, Chile, and South Africa. While these countries have large populations and may be expected to be home to more recipients, other highly populated countries such as Indonesia, Pakistan, and Nigeria have relatively lower numbers of recipients. The countries with the most recipients also have relatively well-established oceanographic communities and have, or have had, membership in SCOR. Only 23 recipients resided in countries with economies considered "low income" by the World Bank (Eritrea, The Gambia, Madagascar, Malawi, Mozambique, Togo, Uganda, and Yemen).

Events were held in 45 countries, both developed and developing (**Figure 1b**). The largest number were held in the United States (almost 50), followed by France, Spain, the United Kingdom, and China.

The program has facilitated many opportunities for networking across continents (**Figure 2**). Participants are most likely to either attend meetings on their own continent or in Europe, consistent with the general trend in international attendance at major ocean science meetings (Sierra-Correa et al., 2020). Travel to Europe is common due to the large number of international events held there. Travel within a continent could be favored due to the ability to obtain visas, lower flight costs, language, and interest in regional topics.

Consistent with SCOR's focus, most supported events were related to natural sciences. About 40% covered multidisciplinary topics such as climate change, air-sea exchange, remote-sensing methods, and coastal processes. Many also incorporated management and policy

[1] "Developing countries" include those identified by the World Bank as "low-income," "lower-middle income," and "upper-middle income" as well as additional Small Island Developing States ranked as "high income" by the World Bank because their gross national incomes are inflated by tourism income that may not be allocated to ocean science education.

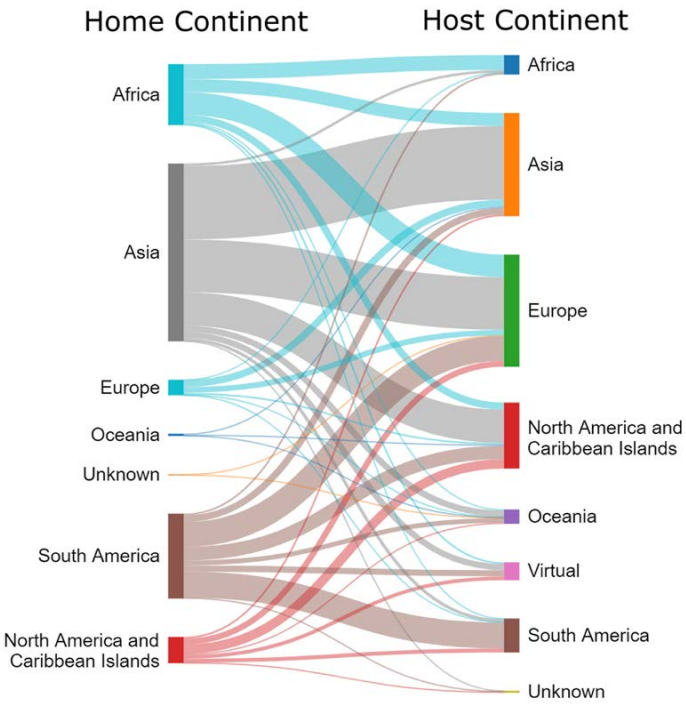

FIGURE 2. Relative number of recipients (indicated by line thickness) traveling from a given home continent (left) to event host continent (right). Produced using SankeyMATIC.

aspects, including four meetings specifically centered on ocean policy.

More than half of the activities were conferences or symposia. Meetings, trainings, and workshops each composed about 15% of the supported events. SCOR also supported six trainees aboard research vessels.

SCOR was involved in planning about 10 of the activities, and some 35% of events were organized by SCOR projects and working groups. About 25% were organized by SCOR partners; for example, 35 were organized or co-organized by the North Pacific Marine Science Organization (PICES). SCOR and PICES share a 25-year history of complementary support of their distinct but overlapping missions. According to PICES, "Without doubt, the participation of developing country scientists has been greatly increased because of this relationship, elevating the diversity of science presented and discussed, as well as fostering additional connections between scientists from different geographic regions" (communication from PICES, 2024).

LESSONS LEARNED

Travel support is in high demand to increase the attendance of early career and developing-country scientists at events. SCOR's program is guided by its priorities, but similar programs could be implemented by other organizations with eligibility requirements based on other regional or disciplinary priorities. The program has returned benefits to SCOR by increasing participation in SCOR's activities, demonstrating value to member countries, providing complementary support to partners, and raising awareness of SCOR. These benefits, in turn, can generate interest in new memberships, partnerships, and participation.

Administrative lessons learned include the importance of requiring that organizers apply well in advance to accommodate the lengthy visa processes faced by some recipients. Delegation of recipient selection to the organizers not only ensures the most qualified recipients are selected but also frees SCOR's time to manage finances, which many organizers are unable to do. SCOR also directly funds some expenses for recipients who cannot pay large expenses on their own. Financial oversight also ensures adherence to federal grant requirements. A lesson regarding the need to require organizers to include plans to engage/mentor the ECRs was also learned from early observations that ECRs had trouble networking without such support.

The analysis of records provides insight into the program's reach. While SCOR does not select individual grant recipients and thus cannot directly fill geographical gaps, it may be able to influence participation from certain regions, such as Central and South America and Africa, by targeting outreach to organizers on these continents. However, more international events need to be held in the Global South to better engage ECRs in those regions. SCOR's news announcements (including via email and social media) and applications are currently only in English, which could be a barrier to awareness among some organizers. Hybrid events could offer opportunities to broaden participation at lower cost to the recipients, although the networking benefits may be harder to implement. SCOR funded two conferences that were initially planned to be held in person but transitioned to virtual formats due to COVID-19, supporting the registration fees of over 20 participants in each event. In the future, SCOR could evolve to have announcements in multiple languages and support more hybrid events.

Tracking the career outcomes and perspectives of the grant recipients through follow-up surveys would be useful. However, such tracking is challenging because recipients often transition to new institutions and lose contact. Looking ahead, improving methods for tracking and evaluating long-term outcomes could provide deeper understanding of the program's effectiveness and influence.

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