

## Publication of Research Results in Developing Countries: Possibilities for Assistance

*Editor's note: Facilitating scientific publication in developing countries has long interested the Council. The following report appeared in CBE Views, the forerunner of Science Editor, in 1984 (7(3):6-11).*

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A Developing Nations Task Force was formed at the CBE [Council of Biology Editors] Annual Meeting held in Philadelphia in May 1983. Members of the task force (Gilbert Croome, Chairman, Monica Guerrero, Amanullah Khan, and Sidney Westley) were asked to determine whether CBE should become involved in efforts to promote scholarly publishing in developing countries and, if so, what form CBE involvement might most usefully take. The task force was represented at a workshop sponsored by the International Federation of Scientific Editors' Associations (IFSEA) and the International Development Research Centre (IDRC), held in Nairobi, Kenya, in January 1984, on the "identification of constraints to improved scholarly publishing in developing countries". Miriam Balaban, the first President of IFSEA, Eli Chermín, the current IFSEA President, and other participants in the workshop all welcomed CBE's interest in providing support to scholarly publishing in developing countries, either directly as a CBE activity or through IFSEA.

An important issue addressed at the IFSEA/IDRC workshop is the proper scope of scientific or scholarly publishing. In countries where writing, editing, and production resources are scarce and development problems are urgent, it is important to keep the primary goal in mind: the communication of valid research results to

relevant audiences. In this sense, scholarly publishing needs to be broadly defined. In terms of subject matter, applied agricultural and social science research is as important as pure scientific research; at the practical level, the distinctions between these areas are often blurred. In terms of publication format, reports, newsletters, textbooks, and extension material are as important as refereed scholarly journals. In addition to material actually published in developing countries, scholars from these areas often need editorial help with papers that they are preparing for publication overseas. This broad definition of scholarly publishing has implications for the possible scope of CBE support.

At the individual level, CBE members have a wide range of training and experience, and many are well equipped to assist publishing efforts on a range of topics and in a variety of formats. At the organizational level, CBE activities to assist scholarly publishing in developing countries should be coordinated with activities of agriculture and social science editors' organizations, and with those of IFSEA.

Correspondence among task force members has led to this preliminary report, which discusses several constraints on scholarly publishing in developing countries and sketches out some possibilities for CBE assistance. Whether CBE should become involved can only be answered by CBE members. However, to make an informed decision, members need to have a clearer idea of the problems faced by writers, editors, and publishers in developing countries and of the types of support CBE might provide. We hope that this report, which was presented to the CBE Board of Directors meeting at Airlie House, will provoke thought and comment from the membership of CBE.

### **Areas of Need and Avenues for Support**

The publication of research results comprises four stages: writing, editing, production, and dissemination. Authors, editors, and publishers in developing countries are often caught in a vicious circle of small

scientific communities, inadequate training, restricted financial resources, limited local audiences, and poor communication with the outside world. They need assistance at all four stages of publication, and members of CBE can offer expertise in all four: as author's editors, scientific editors, managing editors, production staff, circulation specialists, and staff of secondary (and tertiary) services. Although most CBE members work in English only, this is not a major constraint as English is the language of scholarly publishing in many parts of the world, and even where publication must be in a local language (for example, an extension report), the same principles of clear writing and editing apply.

## **Writing**

Many researchers in developing countries present their results in English, although English is not their first language. As a result, scholars carrying out good research may find it difficult to write up their results, and editors, publishers, and referees may find it difficult to judge the merits of their work. Because of poor written expression, their work is often published in small, less well-known journals or is not published at all and becomes part of the gray or ephemeral literature.

Similarly, English is often not the first language of editors and publishers in developing countries, so the material they publish in English may not be well presented. This limits their readership, particularly in the international community, and makes their publications less attractive to authors seeking a wide audience or to authors from developed countries whose papers the editors would be happy to publish both for their content and as examples of clear writing.

Editors, even of well-known international journals, often do not have time to revise papers that have scientific merit but are written in poor English. Another complication is that a paper in this category may need to be revised before being considered by a referee, involving a substantial investment of time before the

paper is actually accepted for publication. CBE's Author's Editors Task Force could identify a pool of author's editors who would be willing to revise papers identified by journal editors as probably meriting publication but needing extensive language editing. Some journals might be able to pay for this service, or some editors might be willing to work occasionally on a voluntary basis—a system that the Association of Earth Science Editors (AESE) is in the process of setting up—or funding might be provided in some cases by a scholarly association or other organization.

Because of costs and communications problems, it is probably more feasible to provide this type of assistance on an occasional basis to authors from developing countries who submit papers to established journals, rather than as a regular means of support for publications produced in developing countries. Ironically, of course, this helps researchers from developing countries publish their best work overseas, rather than in their own countries, contributing to what has been called the “paper drain”.

A more lasting solution would be to develop the English writing skills of researchers and editors in developing countries, either during the normal course of their academic training (which is, unfortunately, rarely done even in developed countries) or in special workshops or short courses. In August of this year, IDRC is running a 2-week workshop in Nairobi to train 30 institute editors in eastern and southern Africa. Several CBE members will be involved in this, although not as a result of this CBE task force's efforts. This kind of activity would be made easier to organize if CBE had a list of individuals who had been identified as potential resource people. Sources of potential funding also need to be identified.

## **Editing**

Editors of research publications need to be proficient in written English and to know their subject area(s). They must also know how to present information in numerical

and graphic form, and they must be able to manage the production process. Large, well-established publishers may have specialists in each of these areas, but smaller publishers—in developed and developing countries—must rely on one person to fill all these roles. Such people are rare anywhere, and in developing countries people with the necessary academic background are often urgently needed in teaching and administrative positions. Thus, the individuals who become journal editors are likely to lack expertise in one or more of the required areas. In developing countries, supporting services that might fill in the gaps, in areas such as printing or design, also tend to be inadequate or lacking.

In a developing country, few specialists are available in any particular subject area, so an editor may find it difficult to obtain expert advice or to have papers properly refereed; this has been cited as a problem in Pakistan. Research results may thus be published without adequate review, or material may be sent to specialists overseas, often at considerable cost and delay.

CBE members with experience in the many facets of publication management could provide valuable training to editors from developing countries. This might take the form of short courses or workshops, such as the writing workshops proposed for scholars from developing countries, or longer associations with particular publication efforts. A CBE member might be willing to spend up to a year training and advising editors from developing countries or might be able to support a publication by correspondence combined with short visits, perhaps once a year.

Support could also take the form of “twinning” between a well-established publisher and a publication in the same field from a developing country. Besides offering assistance by correspondence and occasional visits, an editor from a developed country could give publicity to the publication from the developing country by publishing advertisements or abstracts, could arrange the exchange of publications, could help identify suitable referees,

and could help editors from developing countries make contact with secondary services. CBE could serve as a clearinghouse for publishers in need of assistance from developing countries and publishers from developed countries willing to support a “twin”.

## **Production**

Editors in developing countries often do not have access to sophisticated typesetting and printing facilities or highly trained technicians. Typesetters usually lack experience with scientific notation and are rarely proficient in English. Paper is often imported and shortages may occur, as is the case for many East African countries. In many developing countries, typesetting and printing costs are extremely high.

Where foreign exchange is not a constraint, it is sometimes advantageous for a publisher in a developing country to have typesetting or printing, or both, done overseas. Many CBE members would be in a good position to help editors from developing countries identify reliable and inexpensive production services.

## **Dissemination**

Most publications from developing countries have difficulty building up a wide circulation because local audiences are small and the best work tends to be submitted for publication overseas; this has been a constraint for education research publications in the Caribbean. Poor editing, design, and production do not attract a wide readership, and delays and irregularity in the appearance of periodicals also reduce the number of subscriptions. Without a large circulation, local publications are unlikely to attract the best material; without good material, they are unlikely to be cited widely or covered by the secondary services; and without citation, they do not become better known. So circulation remains small and the vicious circle continues.

Even publishing on a regional basis may be discouraged, with neighboring countries producing similar publications. This

may be due in part to feelings of nationalism but also in part to foreign exchange controls that restrict subscription payments in local currencies as occurs in Latin America.

CBE members can help improve distribution by training editors from developing countries in the techniques of circulation management and promotion. They could also, in some cases, share mailing lists, publicize books and periodicals from developing countries in their own publications, and help obtain coverage by the secondary services. Donor organizations wishing to provide temporary financial support for a publication from a developing country might do this by purchasing subscriptions for libraries and institutions in other countries. In this way, a wider range of readers may become familiar with the publication and might continue their subscriptions once the period of donor support is ended.

Another serious distribution problem concerns the availability of international publications to researchers in developing countries. Due to high costs and foreign exchange restrictions, many scholars have limited access to publications in their fields, which makes it difficult for them to keep abreast of research elsewhere in the world.

CBE members can improve the availability of their own publications in developing countries by offering subscriptions at subsidized rates or in some cases free. When a publication is distributed to all members of an organization or society, an option could be included on the membership renewal form allowing members who do not wish to receive the publication to donate their copies to libraries or institutions in developing countries; the *Canadian Entomologist* is already operating a scheme of this kind. International air postage would add to the cost of distribution to developing countries, but printed matter rates for surface mail are low, and in many cases receiving a publication 4-6 months late is better than not receiving it at all. CBE's role would be to act as a clearinghouse between publishers and relevant libraries and institutions in

developing countries; a caveat here is that the libraries must be in a position to use and distribute the material that is made available.

## Conclusions

CBE can serve a useful function, at a limited cost, as a "clearinghouse", where people with needs, skills, and resources and possible sources of funds could be brought together. There are undoubtedly other ways in which CBE as an organization and its individual members could support the publication of research results in developing countries.

As an international association, IFSEA could play a role in identifying editors and publications from developing countries and in coordinating CBE activities with those of other editors' groups, such as the European Association of Science Editors. Possibilities for cooperation with agricultural and social science editors' organizations should be investigated.

CBE's first step in support of publication from developing countries has been to donate most of the remaining copies of the 4th edition of the *Style Manual* for distribution to editors in developing countries, and a donor has already been found to cover the cost of mailing. Two members of CBE have also offered copies of their books on scientific publishing for the IDRC workshop in Nairobi. We are very gratified that our efforts have borne fruit so quickly. If these first efforts are followed by further relatively low-cost action, CBE may well be in a position to ask donor agencies for major funds to support or even run the sort of workshops suggested. The question remains, "Do CBE members want to see CBE moving in this direction?" Any comments, specific suggestions, or offers of help should be sent to the Task Force Chairman.

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