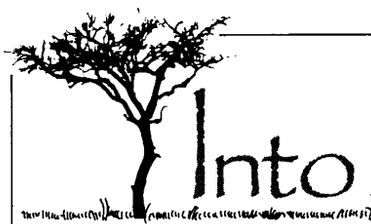
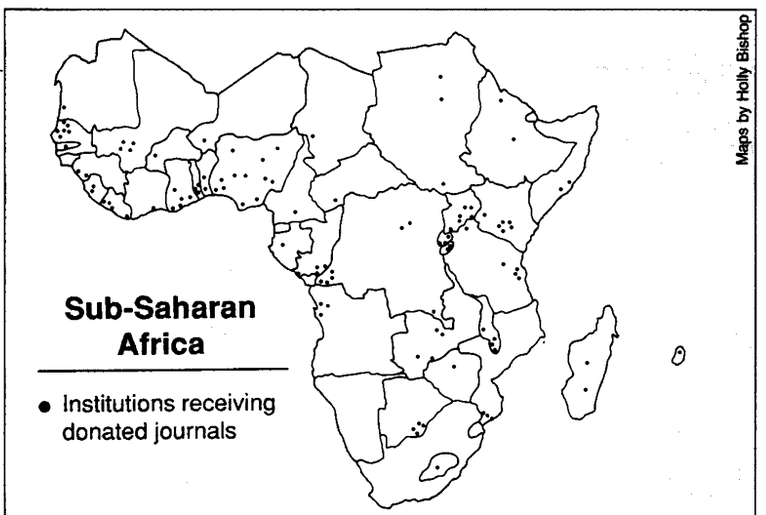
Inside AAAS



Into Africa



Providing Journals

Abdus Salam, Nobel laureate in physics, says he left Pakistan in 1954 because no library there had received any scientific journals since World War II. This is a common story in many developing countries.

AAAS is trying to meet the needs of scholars in sub-Saharan Africa by providing them with at least some journals. The effort began in 1985 when a handful of societies in the AAAS Consortium of Affiliates for International Programs donated journals as part of a pilot project.

Since then, the Carnegie Corporation of New York, the Ford Foundation, and the U.S. Agency for International Development have each provided 3-year grants to expand the program. The Ford grant allows AAAS and the American Council of Learned Societies to join in an effort to broaden social science participation and to fold in the humanities. The United States Information Agency provides some shipping assistance, as does the U.N. Centre for Science and Technology for Development.

The program has grown enormously. At the outset, AAAS and five other societies donated subscriptions to 25 individual journals. Today 89 learned societies supply almost 200 journal titles to 150 libraries in 35 countries. Researchers now have access not only to journals in the physical and natural sciences, but also some in sociology, anthropology, political science, and history.

Recipient institutions are identified through in-country needs inventories, supplemented by advice from donor societies and experts on research conditions in Africa. One physicist surveyed commented that he had "scanned the list . . . much as a child looks in store windows in the week before Christmas." He was writing from Bayero University in Nigeria, which had not been able to subscribe to a single science journal for 2 years.

Some donors supply as many as 100 copies of their journals, but others cannot afford to do so. In order to maximize the fit between journal and recipient, especially where demand far exceeds supply, AAAS created an advisory committee, chaired by David Wiley, Director of the African Studies Center at Michigan State University.

Surveys help us grasp the extremely difficult conditions under which the librarians work. One library no longer has money to bind journals, so they are tied together with cord. Of the 73 libraries that responded to a recent questionnaire, only 43 have working photocopy machines.

Are the journals received? Each time a shipment leaves AAAS, we ask the recipient to let us know when it arrives.

Are the journals being used? That's more difficult to determine. Researchers sometimes write AAAS; like the head of a science department of Addis Ababa University in Ethiopia, who reported that the journals have helped the department to initiate regular seminars and begin new research. The librarian of the Kenya Agricultural Research Institute is circulating tables of contents and providing photocopied articles upon request to research stations around Kenya. We gather information about journals' circulation, readership, and usage through follow-up questionnaires.

An integral part of the program is to establish U.S.–Africa partnerships. Relevant organizations in sub-Saharan Africa have collaborated on the journal distribution activity from its genesis. They recommend institutions to receive journals, and help monitor and evaluate the process.

They have recently begun implementing cost-sharing too. To date, AAAS has negotiated cost agreements with Ghana, Kenya, Nigeria, and Senegal. Effective 11 October, recipient institutions in these four countries (which get about 35 percent of the subscriptions provided through the program) will pay 10 percent of a U.S. member subscription for the journals they receive. Subscriptions will increase 10 percent annually until they reach 50 percent of the cost to a U.S. member. The funds, paid in local currency, will finance scholarly activities in these countries, to be determined by advisory committees in Africa and the United States.

Next steps include enlarging the number of participating organizations, increasing the number of subscriptions, examining the use of new technologies like CD-ROM, establishing criteria for evaluating the program's effectiveness—and taking a hard look at sustaining the flow of journals beyond the life of foundation grants.

■ **LISBETH A. LEVEY, Directorate for International Programs**

Electronic Networking

Sub-Saharan African scientists and engineers are dispersed throughout the continent, a separation that is exacerbated by undependable telephones, a slow, unreliable postal system, vast distances, and expensive air fares. So AAAS, in partnership

ship with colleagues in sub-Saharan Africa, is trying to foster electronic networking there.

In selecting candidates for pilot networking projects, AAAS is using simple guidelines:

- The electronic network must be driven by demand, and a natural affinity group of users should already exist.
- A local champion of the concept, willing to work hard to overcome the inevitable hurdles, must agree to cooperate.
- The technology mix selected should be appropriate to local conditions and rely on tested equipment. It may range, for example, from packet radio to satellite lines.

We welcome suggestions for pilot projects. Some are already under consideration, among them:

- Collaborative effort with the Association of African Universities to develop an electronic network among selected member universities.
- Obtaining BITNET access for key African universities, which could then serve as nodes for others.
- Linking selected Nigerian universities via packet radio to demonstrate a within-country academic network.
- Linking more institutions to the existing EARN node in Abidjan.

Support for the initial phases of this work is being provided by the Carnegie Corporation of New York.

We have learned from all of our sub-Saharan Africa programs that intangible and unforeseen consequences of our efforts are often as important as the specific intended activity that we are carrying out. Our visits and correspondence with colleagues in Africa help them sustain a high morale and positive spirit under very difficult conditions. The AAAS presence in Africa, and the fact that we recognize our colleagues there as serious scientists and seek partnerships with them, results in recognition and support from their own governments.

This they desperately need, but often lack. A Ghanian minister told us once, "It is sad that it takes recognition of our scientists and engineers by groups from outside Ghana before we can recognize the talent we have in our own countries."

■ **BARRY GOLD, Directorate for International Programs**

Sri Lanka Bound?

AAAS is seeking a representative to attend the 45th Annual Session of the Sri Lanka Association for the Advancement of Science, set for 4 to 8 December 1989 in Colombo. The AAAS delegate has been invited to give a lecture and to visit research institutions in the country.

AAAS members who plan to be in the area, or who know of colleagues who might, should contact Laura Mann, Office of International Science, 1333 H Street, NW, Washington, D.C. 20005, 202/326-6400, before 30 September. Please include a curriculum vitae. AAAS cannot pay travel expenses but will provide per diem for the meeting.

Repairing Equipment

Imagine you are a scientist in a tropical region of the developing world, conducting research with a highly sensitive instrument. What with constant humidity and frequent voltage fluctuations, it breaks down yet again. You need a spare part, but the manufacturer's representative serves two other countries and is not due back for a month. You cannot order directly from the manufacturer because of hard currency restrictions. The repair manual is in English and your lab technician knows only French. So you grind your teeth and put the experiment on hold.

This is a frustrating but familiar scenario at developing country research facilities. Equipment sits rusted, broken, improperly calibrated, and underutilized. Recognizing the importance of this issue, AAAS has just completed a study to develop a comprehensive and cost-effective approach to equipment maintenance and repair. Financed by the U.S. Agency for International Development, the study identified several commonsense ideas. It suggested that scientific and engineering societies around the world could, through a communications network, address equipment procurement procedures, advise users on maintenance, and create a model equipment procurement policy to be adapted to specific countries.

As part of the initial study, the China Academy of Medical Sciences surveyed equipment in Chinese medical schools. The objective is to initiate a pilot training program there, expand it to cover other Chinese research institutions, and then transfer it cooperatively to other developing countries, particularly in Africa. The Association of African Universities has found that, in some labs, 75 percent of equipment is broken. "Equipment," one correspondent told us, "spends more time in the storeroom than in the laboratory."

Members of the AAAS Consortium of Affiliates for International Programs participated in the study and will be important players as we take the next steps. AAAS is also working with regional scientific and engineering groups in developing countries of Asia, Africa, and Latin America, and with counterpart groups in Europe.

■ **SANDRA BURNS, Directorate for International Programs**

Seen Any Good TV Lately?

You can help select the best TV and radio reports about science to receive the prestigious AAAS-Westinghouse Science Journalism Award for 1989.

Broadcast entries range from DNA fingerprinting to space flight to ecology to how the mind works, and must be screened for scientific accuracy.

If you live in the Washington, D.C., area, or will be traveling here during late August, we need your help to review broadcast entries in your discipline at AAAS headquarters. Call 202/326-6440 by 15 August.

■ **JOAN WRATHER, Office of Communications**