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## International Science Education

The people of the United States have long wanted to be helpful in assisting the developing countries. Most of the aid programs have emphasized financial support or its equivalent and have been administered by federal agencies. This type of approach has had somewhat disappointing results and enthusiasm for it has been declining. The academic community has contributed in a variety of ways, including bilateral arrangements between specific pairs of universities.

But there remains a considerable latent potential that has not been tapped. Many individual scientists at universities want very much to be helpful in other ways but do not perceive a suitable mechanism. Recently the Commission on Science Education and the Study Group on International Science of AAAS have suggested consideration of another possible approach that emphasizes intellectual rather than financial resources. The proposal is based on an analysis of the reentry problems faced by foreign students after they return to their homes in a developing country. One of their difficulties is that their education usually does not equip them for teaching science, which is the one thing that almost all of them will be asked to do when they return. This, however, has often not been clearly spelled out for them. As a consequence, they devote most of their time to study and research leading to the acquisition of an advanced degree. It has not been impressed upon them that their contribution to the economic and social development of their country may also depend quite strongly upon the impact that they may have as teachers. Their graduate studies have usually not helped them become better teachers.

A good student in physics, for example, may have been part of an eager team of researchers working in an exciting area in the vanguard of his field. He probably had access to modern library facilities and expensive and sophisticated research equipment. But when he returns to his country he finds that money, time, and facilities for research are not available. He is asked to teach an undergraduate course in physics for which he is unprepared. He becomes disillusioned.

The following is an example of the kind of assistance that might be provided to the student. A team of concerned AAAS scientists in his university could help him by communicating with the educational authorities in his home country and could help him try to determine what the nature of his teaching duties will be on returning home. They could guide him to obtain appropriate assistance in the form of teaching experience and exposure to modern approaches, methods, and materials for science teaching, possibly including the use of instructional technology suitable for his country. They could also give him some pieces of research apparatus to take home to enable him to continue some aspect of the research in which he had been involved here.

The main responsibility, of course, still rests with the authorities back home who should employ him in a position that takes advantage of both his educational and research experience. If correspondence with the scientists and educational authorities of his country could benefit from collaboration with the AAAS team on his American campus, it might receive greater attention than if the student attempted to do it alone.

We would welcome suggestions on the relative priority that might be given to this type of project. An enthusiastic response\* could lead to implementation of such a program. We would also welcome suggestions of other possible approaches for involving the membership of AAAS in cooperating with developing countries.† In the coming years such help will be increasingly needed and the matter is worthy of our best efforts.—ALBERT V. BAEZ, *Chairman, AAAS Commission on Science Education.*

\* Letters should be addressed to Dr. Arthur Livermore, Deputy Director, Science Education Office, AAAS, 1776 Massachusetts Avenue, NW, Washington, D.C. 20036. † Suggestions should be sent to Dr. Irene Tinker, Director, Office of International Science, AAAS, 1776 Massachusetts Avenue, NW, Washington, D.C. 20036.