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Assisting Less Developed Countries

It is well known that scientific thought and technical skill have an important bearing on our efforts to help less developed countries achieve higher standards of living. The uses of research in such fields as agriculture, nutrition, and epidemiology are familiar. In plant breeding, for example, a new hybrid rice may be produced by combining the higher response to fertilizer of one variety with the adaptability to tropical conditions of another. Also familiar are some of the spectacular developments that physics is expected to produce in the next few decades, like breeder reactors, which generate more fissionable material than they consume.

But there is still much known technology that is not being used, even though relevant to the problems of backward countries, and there is plenty of room for the development of new devices of more immediate applicability than nuclear reactors. Some indication of the range of possibilities was given at the sessions last August of the International Conference on Science in the Advancement of New States, held in Rehovoth, Israel. On the question of sources of power, for example, ideas included the development of special, low-maintenance electric generators to provide light for remote villages, while in the matter of increasing the water supply, there was an account of recent work in controlling evaporation from lakes by spreading a substance on the surface that forms an extremely thin, blanketing layer.

In education, also, the Rehovoth conference brought out the possibility of adapting developments in other lands to the special needs of less developed countries. Education is central to effective technical assistance, and education now means not just literacy but scientific literacy. Mention was made of the work of the Physical Sciences Study Committee in the United States in creating a new high school course in physics. What was distinctive about this project was not just the incorporation of a modern viewpoint, but the massive effort that was mounted to carry out the work. There was not only the cooperation of university professors, high school teachers, writers, and others in the preparation of text and apparatus, but also the special training at summer institutes of the teachers who were to give the courses. Science courses designed for less developed countries might prove different in scope, but the same approach might be used in their preparation.

Also discussed at the conference was the possibility of doing more research in the social sciences. Success in technical assistance has something to do with our knowledge of the attitudes and beliefs of the people we hope to assist. In fact, as the conference made clear, to speak only of introducing new techniques is to understate the problem. Technical assistance involves at bottom introducing a new world outlook, and the problem is that rapid cultural change can be an extremely disruptive social force.

The feeling is growing in this country that we should increase the assistance that we are now offering less developed countries. But there must also be growth in appreciation of the role that science can play in making the assistance effective. Just as surely as there are many research projects now underway that could profitably be expanded, so there must be many ideas, as yet unborn, that greater support and interest would quickly produce. What is needed is a rather special technology, one suited to the requirements of growing states but perhaps of no more direct use to American citizens, if nonetheless necessary, than a Polaris-launching submarine.—J.T.