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Technology Transfer

The gap in standards of living between the developed and less developed countries (LDC's) continues to grow. Progress of the LDC's toward a better life has been slowed by the worldwide economic troubles that continue to result from the 1973-1974 increase in oil prices. Instead of seeking relief from the authors of their acute miseries—the Organization of Petroleum Exporting Countries—the LDC's have united with OPEC to confront the developed world.

One of the major demands is for greatly increased technology transfer. This concept began to have currency some years ago, but lately agitation about it has mounted. From their utterances at international meetings, it appears that few of the politicians on either side of the debate have more than the haziest idea of what technology is all about. Nor do they understand how science and simple technologies might be utilized in the setting of the LDC's to help meet the basic needs of their peoples.

Responding to the clamor from the LDC's, Dr. Kissinger made many proposals aimed at facilitating technology transfer* during an appearance at the United Nations Conference on Trade and Development in Nairobi in May 1976. In addition, he promised support for the United Nations Conference on Science and Technology for Development to be held in 1979.

To begin to implement this promise, the State Department held a preliminary national meeting on science, technology, and development in mid-November 1976. Dr. Kissinger told the more than 700 participants that the United States must have a principal role in helping developing countries to create their own technologies. He pointed out that, "Those who feel themselves disadvantaged, unjustly treated, dispossessed, will band together, and they will join any other group that is willing to undermine the existing order. And then international problems will be settled by endless confrontations, by contests of strength."

Dr. Kissinger's words were eloquent, but they came in response to the pressures of the moment rather than as a result of thoughtful foresight. At the meeting, Congressman Zablocki rightly chastised the Department of State for its belated recognition of the importance of including science and technology in diplomacy.

On the surface, the best mechanism for transferring technology is through the multinational companies. They have capital, managerial skill, and know-how. However, American labor organizations object to potential loss of jobs, and the companies are not attracted by the current attitudes of many Third World countries. After investing, will the companies be reviled and their installations expropriated?

But there is a larger question. What current U.S. technology would be useful to Third World countries for the long term? Much of the U.S. industrial and distribution system was designed to use abundant low-cost energy in the form of oil and natural gas. Now some of this technology is obsolete, and within a decade bulldozers will be knocking down facilities that were designed to use cheap fuels.

The technologies that most of the world needs are new technologies based on the indigenous energy and human resources of the respective countries. Those developing countries such as Brazil that are wise enough to foster their native scientists and engineers and to develop their own energy sources will forge ahead.

The State Department should decide whether to place reliance on just another U.N. conference where the politicians make meaningless speeches or whether to seek alternate ways of helping the Third World. Is it not more important to find new ways to meet basic human needs than to stage another theatrical performance?—PHILIP H. ABELSON and IRENE TINKER, *Office of International Science, AAAS*

*N. Wade, *Science*, 28 May 1976, page 869.