

# Science and technology serving development

Francisco Sagasti

Between 1973 and 1976, groups of researchers from ten countries in Africa, Asia, Latin America, and the Mediterranean worked together on the largest research project undertaken to date on technological policies for development. Entirely conceived and carried out by Third World researchers, the project is known as the STPI (Science and Technology Policy Instruments) Project. Now that the first phase of field research has come to a close, project activity has turned to making the research results public so that the government, university, and industrial sectors in Third World countries may become fully acquainted with them.

The idea for this project emerged during a meeting of Latin American officials from the science and technology fields held in Peru in 1971. The fact that the countries of that region had not, in the course of their development, created an effective demand for local technologies was one of the prime factors that prompted the creation of the project. Though most countries from this area had science and technology policies, there was little evidence to show that these policies had produced tangible results.

Thus, the situation pointed out the importance of studying the technological implications of a large number of economic and social policies. The problem was first analyzed in Peru and Argentina. Using these studies and the initial concern with technological implications as its groundwork, the STPI Project was organized. Taking part were Argentina, Brazil, Colombia, Mexico, Peru, and Venezuela. These six Latin American countries were joined by

Egypt, India, South Korea, and Yugoslavia.

The project's specific goal was to provide governments with information on the effectiveness of different policy instruments in the application of science and technology to socio-economic development. At the close of phase one in late 1976, the project had compiled some very valuable information. The partial results obtained in the course of the studies often were helpful in making decisions on scientific and technological policy in those countries participating in the project. The research teams were made up of university professors and government officials in an effort to guarantee an information flow between those who perceive the problems and those who offer solutions.

From the outset, the teams agreed to pursue the studies using a common list of sectors. These included the metalworking, iron, steel, food, petrochemical, and electronics industries. Thus, each country was able to do case studies in an area of particular interest to it — the mining industry in Peru, state enterprises in Brazil — and at the same time, they were able to gather information that was useful in exchanging experiences. In all of the studies, the current state of science and technology and the government's role in the formulation and implementation of technology policies were examined. The effect of these policies on the technological behavior of industrial enterprises and on research institutions was empirically analyzed.

The IDRC financed a large part of this project, especially the areas related to international and coordination costs.



Photo: Ron Poling

*Brewery in La Paz, Bolivia: local beer, but whose technology?*

The participating countries contributed approximately 35 percent of the total. The Organization of American States provided several of the Latin American teams with assistance, while Venezuela, India, and Brazil directly covered most of their own costs. The participating institutions were: The Science and Technology Commission of the Latin American Social Science Council (CLASCO), Buenos Aires, Argentina; the Studies and Projects Financial Institute (FINEP), Brazil; the National Science and Technology Council (COLCIENCIAS), Colombia; the Indian National Science and Technology Commission; the Korean Institute for Advanced Science (KAIS); the College of Mexico; the Peruvian National Planning Institute; the Egyptian National Academy of Scientific and Technological Research; the Venezuelan National Science and Technology Council; and the Department of Economy of the University of Skopje, at Macedonia, Yugoslavia. A coordinating committee, made up of representatives from each national team, met with the general coordinator every six months to review the project's progress.

The coordinator's office was in Lima, Peru, from 1973 to 1976. With the help of two professional assistants, the office also prepared comparative studies, training programs for several researchers, and studies on technological dependence, engineering firms, and the technology policies of Japan and the People's Republic of China.

The next phase of the project is the dissemination of the results of the studies, again with IDRC support. A number of publications — books and monographs — are in preparation including the methodology guidelines, the final comparative report, and the participating countries' summary reports. During the next year, seminars will be held for officials and researchers in Africa, the Arab countries, Asia, and Latin America to ensure that the results of this project, one of the largest of its kind ever undertaken, are used as widely as possible. □

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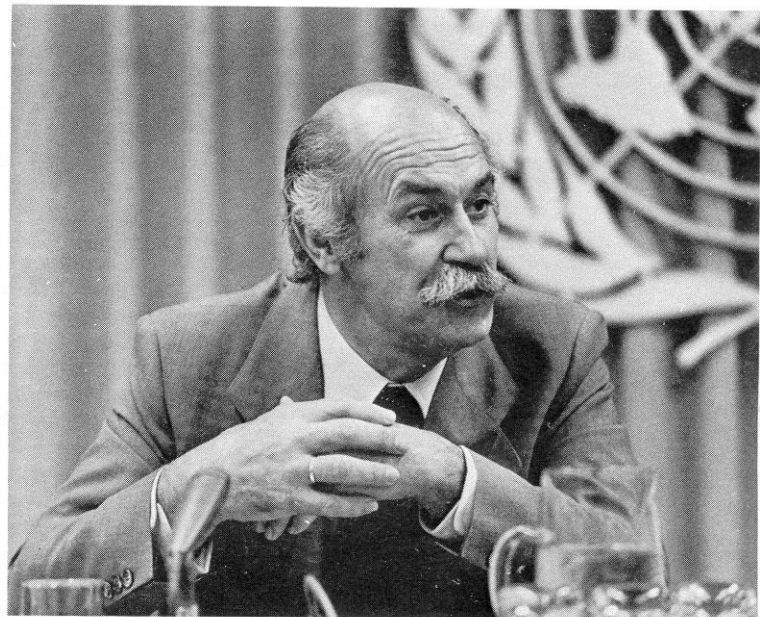
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*Janez Stanovnik: Do the industrialized countries have the right to use up all the oil before the rest of the world can benefit from it?*