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# Canada's Role in Science and Technology for Development

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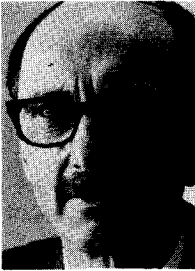
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## UNCSTD: Background, Objectives, and Ultimate Goals

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*Guy Gresford,  
UNCSTD*

My first task is to bring you the apologies of Mr Da Costa, Secretary General of the United Nations Conference on Science and Technology for Development, who unfortunately could not be present because of other commitments. He has asked me particularly to say on his behalf — and very strongly on my own and, indeed, on behalf of all members of the conference secretariat — how much we appreciate and value the contribution Canada is making to the preparation for this conference. This applies not only to the political areas but also to the consciousness-raising brought about by meetings such as this. We have also come to rely very heavily on IDRC for advice, and I should like to acknowledge this publicly.

You have asked me to speak on the United Nations Conference on Science and Technology for Development, its background, objectives, and ultimate goals. The 1963 conference, which was held in Geneva, was the first formal effort on behalf of the United Nations to look at the problems of the application of science and technology to stimulate and assist development.

Sixteen years ago when that conference took place, of course, ideas were rather more rudimentary than they are now and, indeed, looking back on them now they seem perhaps almost naïve. The thought behind the 1963 conference was quite simple: the advanced countries had all the knowledge and the science and the technology; the developing countries had the problems. All that was necessary to solve the problems was to bring together and match the scientists of the developed world with the scientists of the developing countries. Of course, this didn't work out, and in the years since 1963 we have learned a very great deal about the actual process of development. And this has assumed political expression in aspirations like the International Development Strategy — the third decade of which is to commence next year — and the adoption by the General Assembly of the United Nations of the Declaration on the New International Economic Order.

The goal, of course, has not yet been achieved. But one of the objectives in the upcoming conference in Vienna is to move toward that goal. In developing countries since 1963, there has been a growing emphasis on the necessity of self-reliance rather than the acceptance of aid, which has paternalistic overtones. The concept of interdependence has found increasing emphasis and has been, in a formal sense, recently given a great deal of publicity through the United Nations Conference on Technical Co-operation among Developing Countries (TC DC). We now understand much more clearly that measures of development other than the gross national product are needed, and we have come to

realize the importance of science — and perhaps I will make a distinction between science and technology here — the importance of science as an instrument or tool of development rather than an end in itself. We are now placing much more emphasis on the need for social control of the development of technology, and we are paying more and more attention to the way in which we can tackle universal problems and global problems. I make a distinction here between universal problems, problems that are common to many countries such as poverty, nutrition, etc., and global problems, which are perhaps more environmental, such as problems of the atmosphere or the circulation of the ocean currents.

So much, then, for the changes that have occurred since 1963. What has brought us to the idea of having a UN Conference on Science and Technology for Development in 1979? The formal step toward this came with the resolution in the General Assembly of the United Nations from Romania as long ago as 1970, which asked the Secretary General to prepare a report evaluating the role of science and technology and their influence on society, not only developing societies but all human societies. As a result of the resolution, a report was prepared by the Secretary General suggesting that the time had come to have another conference on science and technology, because of the changes occurring since 1963.

In the usual UN system there are a number of committees and expert groups and so on that develop the ideas on which a conference might be based, and I am pleased to note in the audience tonight, my old friend and colleague Alexander King, who was a key author in the paper that gave rise to the ideas of this conference. I will not go into all the details. Suffice it to say that in August 1976 — and I mention these dates because of the long lead time that seems essential — the Economic and Social Council adopted a resolution recommending to the General Assembly that a conference on science and technology should be held. This resolution was subsequently endorsed in the same year by the General Assembly.

Now the concept of the conference at that time was that it was to be a conference on science and technology for society. It was to look at the world *problematique*. But it soon became apparent, when the matter was debated in more detail in the various United Nations circles, that the emphasis should be on science and technology for development. The phrase was “development of all mankind” but the emphasis was clearly — and I’m sure everybody would think this was the right decision — on development in the sense of developing countries.

Now the objectives of the conference were set out in the resolution, and, very briefly, they were to adopt concrete decisions on ways and means of applying science and technology in establishing a New International Economic Order; to strengthen the technological capacity of developing countries to enable them to apply science and technology to their own development; to adopt effective means for the utilization of scientific and technological potentials in solving problems of development; and to provide developing countries with the instruments of cooperation for science and technology. There were four main agenda items established for the conference. The first of these was science and technology for development. This was intended to cover such questions as the choice or transfer of technology, the elimination of obstacles through the utilization of knowledge, and methods of integrating science and technology into economic and social development. The emphasis in this agenda item is on the problems and the

actions to be taken at the national level mainly, but not exclusively, by the developing countries themselves. The second agenda item was institutional arrangements and new forms of international cooperation of which I think the purpose is obvious. The third, the utilization of the existing United Nations system and other international organizations. The fourth one, science and technology in the future, was intended to take a more philosophical and long-term look at where we are heading.

There are one or two things about the nature of the UNCSTD conference that I think need emphasizing. One is that it is a conference of governments. It is not a scientific meeting in the sense that people will come to it to read papers, and anybody who wants to come can apply. It is a negotiating conference in which the participants will be delegations appointed by governments. The question of the substance of science and technology is not to be discussed, and no learned papers on particular aspects of science will be presented. The conference is basically one about the process of development and how to use science and technology in that process. It is intended to contribute at the highest level to the North-South dialogue, which is really the central theme and the central obsession, one might say, of international discussion and international politics at present. And finally, preparation of the conference has been the responsibility of a preparatory committee open to all governments and a Secretary General appointed by the United Nations, with appropriate staff.

The preparations have involved writing and collating national and regional papers about the problems encountered in developing countries in applying science and technology and in developed countries in providing assistance to developing countries in the use of science and technology. We have received such papers from 120 out of 150 members of the United Nations — which we think is a fairly good return — and these papers have been analyzed by the staff of the conference secretariat to produce documents for the conference, of which the basic one is a program of action. All United Nations meetings have to adopt a program of action.

I should perhaps say a little bit about where we stand in the preparation, because I think it may be an interesting background to our discussions over the next 2 days. The program of action has been drafted by the Secretary General and presented to the fourth session of the preparatory committee, which concluded its deliberations last week. It is divided into three sections, which correspond broadly to the three principal agenda items. The first is strengthening the scientific and technological capacities of developing countries. The second is restructuring the existing pattern of international science and technology relations. And the third is strengthening the role of the United Nations system in the field of science and technology and providing increased finances — a very important issue, of course.

One primary purpose of the conference is to stimulate an awareness in developing countries of the role of science and technology and in developed countries of the responsibility and opportunities for assisting the developing world, not only for humanitarian or ethical reasons, but also for sheer self-interest. This consciousness-raising has been going on through the preparation of the national and regional papers and through all sorts of meetings and conventions, some called at the national level, some called by the international scientific community. There was a meeting in Jamaica called by the International Institute for Environment and Development, with which the IDRC was concerned, and a major meeting in Singapore convened by a group of nongovernmental organizations headed by the International Council of Scientific Unions (ICSU). I think

it is fair to claim that even before the meeting in Vienna this process of consciousness-raising has been successful. One finds now a tremendous debate going on in forums in many countries — perhaps not as much in the press as we had hoped, but this may come in the time remaining. At any rate, the real political dividend expected from the conference is the program of action.

The developing countries — the Group of 77, as we call them, although their numbers are much greater than 77 now — have prepared a response to the issues raised in the Secretary General's draft program of action. At the last preparatory committee meeting the debate was seriously joined by the developing countries and the advanced countries. (These terms, of course, are gross oversimplifications because the developing countries range in stage of development from Brazil to Botswana, and advanced countries are a heterogeneous mixture of members of the European Common Market and other countries, such as Japan.) Tentative agreement was reached on a preliminary text for the first target area of the program of action: strengthening scientific and technological capacities of developing countries, which will go eventually to the conference for acceptance. A number of phrases and issues require further debate, but, nonetheless, the conference seems to be coming to grips with the problems in this target area.

However, in the time remaining before the conference, reaching agreement on the other two target areas — restructuring the existing pattern of international science and technology relations, and strengthening the role of the United Nations system in the field of science and technology and providing increased finances — will be a difficult task because these are the areas in which the real issues, in the political sense, exist. These issues are basically three: the conditions for the transfer of technology; the international machinery for the stimulation, management, and control of science and technology; and the provision of finances.

These are the questions that will be resolved, we hope, in Vienna. But time is getting short: the conference starts 14 weeks from next Monday. Will the world be a better place when the conference finishes? I think that although some enthusiasts hope this will be the case we must look toward a much longer time frame to see what effect, what practical effect, the conference has in achieving the ends that are so necessary. Basically the object of the conference, apart from consciousness-raising, is to assist in the stimulation of political will to ensure that developing countries achieve self-reliance, toward which they will work assisted by the developed world, to redistribute the world's scientific effort and find some better balance than exists at present between the science of the advanced countries and that of the developing world, to stimulate greater concentration in the advanced countries on the problems of the developing world, to redirect research programs, to provide more acceptable conditions for the transfer of technology, to restructure international relations in science and technology and improve the machinery for consultation and cooperation, and to provide increased finances.

Although you cannot see it, I have, like the Peruvian Indian, been standing on one leg behind this rostrum, and as I am now starting to totter I think I should stop speaking. I hope I have been able in this short time to give you a broad picture of the objectives of the Vienna conference and the preparations for it.

Guy Gresford is Deputy Director-General of the United Nations Conference on Science and Technology for Development.