

Vienna: Where North Meets South

The question of how to employ science and technology to upgrade the quality of life amongst the world's poor will be tackled next week by political leaders at a United Nations conference

BY JANET RALOFF

Vienna is not a city one usually associates with technology. Yet by summer's end it will have hosted summits on two of the year's — and perhaps the decade's — most hotly contested issues in international technological diplomacy: SALT II and UNCSTD. Each in its own way seeks to reconcile major strategic differences affecting global security.

The headling-grabbing SALT (Strategic Arms Limitation Talks) treaty needs little introduction: It purports to balance the nuclear arms capability of the East and West through limits on the nuclear arsenal that the Soviet Union and United States can assemble.

Like the Vienna SALT II summit, UNCSTD — the United Nations Conference on Science and Technology for Development — culminates years of planning and many rounds of preliminary discussions between the nations involved. And like SALT, issues for the UNCSTD summit have been brought into focus only after years of growingly contentious rhetoric — much of it with little common ground in sight.

Both summits take place in the Austrian capital's glittering and chandelier-laden Hofburg Congress Center, but here the similarities end. SALT stems from concern about war, UNCSTD from concern about life and the way the quality of it seems to correlate with a nation's scientific and technological prowess. And unlike SALT, UNCSTD is not a meeting between a pair of relatively well-matched parties, but a forum for more than 100 — actually, about 150 — countries spanning the gamut from huge, industrialized superpowers to the small, rural poor nations. If the United States and the Soviets are having trouble finding a language they can agree upon for a concept they both endorse, how much more complex the problem gets with 150 equal voting parties.

Adding to the inequality is the formation of two basic factions: those who have and those who want to have. This represents a subtle variation of the split that was characterized when UNCSTD discussions first got underway. Then it was viewed as a forum between those who have and those who were to be given. At its simplest, at issue was how to *transfer* technology from those who had developed it to those who

hadn't, and — it was presumed — couldn't have.

It didn't take the "lesser developed countries" long to react to what they interpreted as a patronizing ring in that definition. But what came to gall them more was the underlying presumption that if one was economically "underdeveloped" and wished to move up, one should do it the same way industrialized powers had — in short, the way the North had.

In what might be described as a trial walkthrough of the UNCSTD issues, at a symposium in Toronto last May sponsored by Canada's International Development Research Centre, Argentine Jorge Sabato expanded on just that theme. What the North does and has to offer may have little bearing upon what the South needs, he said. The United States may encourage the sale of computers and nuclear reactors to oil-rich Mideast chieftains and South American politicians, this former director of technology for the Argentine Atomic Energy Commission said, but if these countries aren't fully electrified nor able to provide the technical support to handle computer breakdowns, is this technology transfer appropriate? And there is no reason to assume that the way the North has solved a given problem — such as pest control — is the only way, let alone the best way, to do it, he added. In fact, Northerners may one day be surprised to find that the talents and values that characterize their supposedly unsophisticated Southern Hemisphere neighbors may actually revitalize the declining productivity of science and technology investments up North, he said smilingly. "Who knows, one day the North may be buying nuclear reactors from us."

When the North hears the term "appropriate technology," they assume it just means simple technology, complained Armando Caceres, a professor of cell biology at the University of San Carlos, Guatemala. As coordinator of rural-health programs at the Meso-American Center for Studies on Appropriate Technology in Guatemala City, Caceres is working with a group designing inexpensive privies and stoves. In some communities in his country, as many as 85 percent of the people are too poor to afford to build a latrine, he said. As a result, water-borne diseases brought on by fecal contamination of drinking water are the leading health-care problem in the country.

"When we talk about appropriate technology, we're not necessarily talking about low technology," he told SCIENCE NEWS. The virology and parasitology studies that test the effectiveness of a particular latrine's biodegradation capabilities require sophisticated laboratory

equipment and expert technicians. "We found we were dealing with a virus that was discovered only two years ago [in one community]," he said. Had his scientists not been reading up-to-date journals, which most underdeveloped countries complain they lack, "we would not have licked the problem," he said.

He, like many Southern representatives at the Toronto meeting, complained that what they really need is to build a pool of local talent to deal with local problems. "We don't want our scientists trained up North, outside our community and our values. Let's build schools here," complained one Nigerian biologist. If water-borne or tropical diseases are the major research areas that will bring the largest improvement in health care to the Southern rural poor, said one Ghanaian ecologist, why not develop a "world class" tropical-diseases laboratory in the tropics and let Northern scientists work there if they want. He said educating scientists from lesser-developed countries in the North tends to encourage a "brain drain" that's depleting needed indigenous talent; "once they live at Harvard, they never want to go home."

If these complaints are representative of the lesser-developed countries' complaints, and from most accounts of UNCSTD-preparatory sessions they are, then there is a big difference between what the developed nations are expected to offer at Vienna and what the developing nations are hoping to be offered. With inflation hitting everybody, money is tight. Resulting foreign-assistance policies tend to foster a philanthropy more verbal than fiscal.

Most of the developing nations are, by U.S. standards, poor. These countries are asking for money, teachers and research equipment, not scholarships, chrome-and-cement hotels or photovoltaic power stations. Many densely populated nations fear that transferring labor-saving technological innovations from "up North" will only increase their unemployment rates and local unrest. And scientists in developing countries frequently complain of the government graft that siphons off precious foreign-aid dollars before it gets to them and their laboratories; money should go right to institutes, not politicians, they suggest.

What will happen in Vienna? Many hope it will establish a new world order for international cooperation on science and technology. Most suspect, however, that that is probably impossible due to the ideological differences, jealousies and animosities between those who supposedly have and those who clearly have not. Some expect a carnival, others a snakepit. But all come *hoping* for more. □