

of SDI are discountable.” However, in the world envisaged by President Reagan at the Reykjavik summit, in which nuclear weapons would be all but eliminated and SDI would be deployed as insurance against Soviet cheating, they would be far more important.

Indeed, at a press briefing following the summit last October, assistant defense secretary Richard Perle suggested that the Soviets may already have discovered “a potential for offensive uses of space,” and are anxious to stop SDI because of concerns “that we might somehow in the course of the SDI program stumble upon offensive technologies.” According to the speakers at the symposium, offensive technologies would in fact be an inherent feature of SDI. ■

COLIN NORMAN

AAAS Briefing:

Expanding Deserts, Shrinking Resources

In 1977, representatives of 94 countries met in Nairobi and endorsed an ambitious plan to combat the pernicious process of land degradation in many parts of the world. Ten years later, the causes of desertification “remain unaddressed, the effects are misunderstood, and the tools to bring it to an end lie around us unused,” according to Noel Brown, director of the North American

Office of the United Nations Environment Program (UNEP).

Brown, who was speaking at a symposium on desertification at the AAAS annual meeting, noted that the Nairobi conference estimated that investments of \$4.5 billion a year would be required to halt desertification by 2000, but only a tiny fraction of this amount has been made available. Less than \$600 million a year is being spent in developing countries, according to Brown, and virtually all of it is going to items such as road construction and training rather than to soil management.

A special account set up by the Nairobi conference for donors to make voluntary contributions to support desert control efforts has attracted a grand total of \$50,000, Brown said. And a special 30-nation consultative group that was formed to develop and fund antidesertification efforts has received proposals for projects worth \$528 million but raised only \$26 million to fund them. “Lack of funding has prevented any implementation of the plan” agreed to in Nairobi, Brown concluded.

“Equally disturbing,” said Brown, is that not a single country has put into operation a national plan to halt soil degradation, although Tanzania, Burundi, and Uruguay are in the process of implementing national strategies. And of six regional projects proposed by the Nairobi conference, only two—a “green belt” project in North Africa and an aquifer project involving Egypt and the Sudan—are being implemented.

That bleak international picture was given an even more depressing cast by Jeffrey

Gritzner of the National Research Council, who described his own observations of efforts in the Sahel region of West Africa. “There has been a relatively steady deterioration of environmental systems in the region, and a steady deterioration of food production,” Gritzner said.

Soil management projects have rarely involved local farmers and herders, Gritzner said. As a result, “some of the best sources of information have been almost systematically neglected,” and some of the best plant species “almost never have been species that donors or local governments are interested in.” Perhaps not surprisingly, Gritzner concluded that “an overwhelming majority of the antidesertification projects [proposed for the region] would promote desertification.”

In June, UNEP is scheduled to produce an assessment of the record since the Nairobi conference. It should be an opportunity for some soul-searching. ■

COLIN NORMAN

Nuclear Tests Defended

Continued testing of nuclear weapons will be critical for the development of strategic defenses and for assuring the safety and reliability of the existing stockpile, a top government weapons scientist contended at a symposium on the prospects for a nuclear test ban. “We should not delude ourselves into thinking that a nuclear test ban will enhance the safety of our country; it may in fact do quite the opposite,” said George Miller, associate director for defense systems at the Lawrence Livermore National Laboratory.

Miller argued, however, that the role of nuclear testing in the Strategic Defense Initiative has been “greatly distorted” in the test ban debate. Underground tests have generally been depicted as crucial for the development of x-ray lasers, which have been portrayed as a driving force behind SDI. Miller claimed, however, that the x-ray laser program is aimed not at acquiring the weapons but at “threat assessment”—determining whether x-ray lasers could be used by the Soviet Union to attack space-based elements of SDI. He repeatedly referred to SDI itself as “nonnuclear.”

This drew a response from Richard Garwin, a longtime defense adviser and fellow at IBM’s Thomas J. Watson Research Center. “If there weren’t any testing going on, we wouldn’t have to fear the acquisition of a Soviet x-ray laser capability,” he said.

Miller also disputed published estimates that 100 to 200 underground tests would be required to develop an x-ray laser. He



Earthscan

Life on the margins. The United Nations Environment Program estimates that 6 million hectares of land are becoming desert each year.