"Frankly," drily observed Deborah Jensen, director of conservation science for the Nature Conservancy, "this whole business about wildness being fierce is a male thing." More important, she disagrees with the plan's decision to begin with current wilderness areas, which are often species-poor, rather than focussing on areas of maximum biodiversity and trying to preserve those first. The Wildlands Project, she points out, equates saving biodiversity with creating wilderness. "This [project] is talking about removing people from their homes," she says, when what is needed are better ways for people to live compatibly with the biodiversity around them.

But according to the Wildlands Project, that compatibility may simply not exist. If so, its absence will force Americans into some difficult choices. "Biologically, I agree with the Wildlands Project completely," said Fred W. Allendorf, a population geneticist at the University of Montana, who is not affiliated with the plan. "If we want to save animals like grizzly bears, we really do have to put aside the large chunks of land they're talking about. And in not doing so, as we are now, we're making the de facto choice to let them go extinct, perhaps pretty quickly. I don't know about the project's political feasibility, but at least it will help force people to make a conscious choice about what we are going to let survive."

–Charles C. Mann and **Mark L. Plummer**

Mann, a frequent contributor to Science, *and Plummer, a senior fellow at the Discovery Institute, are completing a book on biodiversity in North America.*

FUNDING PRIORITIES

Academy Recommends Global Yardstick

How can you tell whether the federal government is spending the right amount on a particular area of science? According to a new report* from the National Academy of Sciences (NAS), a key yardstick should be how well the United States measures up against the rest of the world in that field. And although the report doesn't get into specifics, some of its authors told *Science* that they believe such an analysis would not help funding prospects for areas such as high-energy physics and nuclear weapons research.

The report, written by the Committee on Science, Engineering, and Public Policy (COSEPUP) of NAS, the National Academy of Engineering, and the Institute of Medicine, proposes two goals: "that the United States should be among the world leaders in all major areas of science" and that the country "maintain clear leadership in some major areas." Although politicians should decide which fields are most important, it says, independent panels of experts should conduct periodic reviews of domestic and international trends to determine the relative strengths and weaknesses of individual fields. The report does not call for additional spending, saying that "relatively minor reallocations" of the current $75 billion R&D budget could have a "major effect" on the research enterprise.

Although the report doesn't say so, the panel informally tested the method. "We analyzed 20 fields of science and we came up with four or five that were overfunded" and some that were underfunded, says COSEPUP chairman Phillip Griffiths, director of the Institute for Advanced Study in Princeton. "None was in terrible shape," he says, "but several needed attention."

The 19-member committee did not feel that it had enough information to discuss this analysis in its report, Griffiths says, but individual panel members are not so reticent. Phillip Sharp, head of the department of biology at the Massachusetts Institute of Technology (MIT), for example, says that "we are so far ahead in high-tech armaments and other advanced weapons systems that it is ridiculous." And Robert Solow, Nobel Prize–winning economist from MIT, says that "nobody looking at the field of high-energy physics from the outside could possibly think that we need to spend more."

The report also spells out criteria to evaluate government spending on technology. It says that the country needs to be able to react quickly to technological breakthroughs such as the discovery of high-temperature superconducting materials by supporting basic research in relevant fields, maintaining the necessary infrastructure, and training sufficient numbers of new scientists. The technologies most worthy of support, it says, are those "in areas that could lead to major new industries" and in areas where U.S. industry has shown the capacity to excel and has promised to spend a significant amount of its own money.

INSTITUTE FOR ADVANCED STUDY

Taking the broad view. Phillip Griffiths, COSEPUP chairman.

Griffiths says he hopes that the report, by explaining how commercial success depends on a strong scientific base, will serve to counter arguments by those who want the government to shift money from basic to applied research. "People see our industries losing market share, environmental problems mounting, and health care costs soaring," he says, "and they wonder what purpose our investment in science is serving. We hope that this report gives policy makers a more rational way to make funding decisions" than traditional measures that are based on dollars spent or on the number of scientists funded. Its conclusions "are hardly revolutionary," admits Solow, "but they provide intelligent guidelines that a thoughtful politician might follow in deciding how to spend federal dollars on science."

COSEPUP is just the latest in a growing chorus of commentators giving opinions on why the federal government should support research. Since last fall, the National Science Foundation, the National Institutes of Health, and the White House Office of Science and Technology Policy, for example, have issued reports that address aspects of the question, and congressional leaders have likewise spoken out on the topic.

Why the sudden interest in identifying criteria for science funding? The academy decided 2 years ago that a review of the government's role in supporting research was essential given the end of the cold war, the increased international competition, and a growing dependence on science and technology for national economic progress. The $73,000 study began officially in December after Griffiths became chairman of COSEPUP.

Now the academy has spoken, but is anyone listening? Perhaps a few leaders. Last week, the committee briefed presidential science adviser Jack Gibbons and House Science Committee chairman George Brown (D–CA), and on Tuesday, Griffiths and NAS president Frank Press talked to the science subcommittee of the Senate Commerce, Science, and Transportation Committee.

At least one Senate aide is impressed, saying the report offers "an intriguing way" to decide how to invest a limited pool of federal dollars. But it's too early to say if the academy's advice will be incorporated into government policy.

–Jeffrey Mervis

* "Science, Technology, and the Federal Government: National Goals for a New Era," National Academy Press, 1993.