Congress Asks, Is Nature Worth More than a Shopping Mall?

But cost-benefit analysis is problematic.

By WILLIAM K. STEVENS

Increasingly over the last few years, Federal regulators have been criticized for their reasoning. They have spent billions of dollars to attack environmental and health threats without adequately considering whether the benefits justify the costs.

In cleaning up toxic waste, for example, is it really worth spending the time and money to make sure the site is as safe as a kitchen? Might some of the money be better spent on another problem?

In February the Reagan administration released a bill requiring analysis of the costs and benefits, and comparison of the relative seriousness of environmental and health risks, before any regulation expected to result in an annual cost of $50 million or more can be issued. Similar legislation is now being considered by the Senate.

Who would argue with such a rational proposition? Too many people.

The main problem, say many experts, is that cost-benefit analysis is not ready for prime time.

At their best, risk assessments contain false data and rely on assumptions that can affect the outcome of 100 or 1,000 times more, often with judgments used in the calculations — to be employed in the way in which the House bill stipulates.

This much, for instance, is an unchanged ecosystem worth compared with the commercial or industrial developments that cause it. In this case, say that scientists and economists do not yet know enough to answer the question quantitatively: that in the end, the species would often boil down to a subjective reckoning. Yet the emerging new legislation could require in some cases that the question of whether costs and benefits are worth the price.

Risks to health as a result of environmental contamination — and therefore the benefits of reducing them — are considered somewhat easier to assess, but even there the ignorance quotient and the margin of error remain large.

Experts say, "At their best, risk assessments contain false data and rely on assumptions of the subject." They wrote that while cost-benefit analysis has a place in public policy, the "no magic wand," and "public policy is not well served by pretending science can do what it cannot."

Paul R. Portney Resources for the Future

I shudder at the thought of turning these things over to the courts to decide.

John D. Graham Harvard Center for Risk Analysis

Judicial review "will favor those that have the strongest case in science and economic rationality."

The provision for judicial review goes beyond existing arrangements for risk assessment and cost-benefit analysis. The Environmental Protection Agency, for example, has performed several cost-benefit analyses over the years. Some have supported proposed regulations while others have not, says Dr. Richard Morgenstern, a senior policy analyst who recently left the agency after 12 years. He is now employed at Resources for the Future, where he is working on a book on cost-benefit analysis.

Another proposal, he says, is a requirement in the House bill that when the annual cost of a regulation exceeds $100 million or more, cost-benefit analyses and risk assessments must be reviewed by outside panels of experts. This, he says, is designed as a quality-control measure. Critics have attacked the measure because some of the experts sitting on the panels would be designated by regulated parties. But Dr. Morgenstern points out that all panels would have to declare their interests, as is common done in such situations, and that any overweening interest would tend to weaken a panelist's influence. Besides, he says, it is usually impossible to find qualified panelists who do not have some interest in one side of an issue or another, as has been merely demonstrated by critics to assess the environmental effects of asbestos.

In the past, agencies have sometimes ignored the assessments of health risks on the worst cases — for instance, the effect of air pollution on the very old, the very young and those with respiratory or heart problems. The House bill would require that the impact on average people be assessed, as well. A regulation might then be based on the worst case or the average case, but their value judgment would be made explicit.

Similarly, in cases where benefits or costs cannot be well quantified — as in determining the relative value of an endangered ecosystem and the animal that might replace it — nonmonetary criteria would be allowed, but they would have to be explained.

Generally speaking, environmental benefits are harder to measure than costs, because even cost estimates are "ballpark at best," and the experts say in their letter to the Senate. History shows, said Dr. Ashford, that costs usually have been underestimated and benefits underestimated.

It is especially difficult to measure the value of natural ecosystems, where science has a clear sense that nature has enormous value — not least, it supports human life — economists and scientists have often been frustrated in trying to attach dollars to specific slices of nature or natural functions.

These experts have tried to calculate how much would people pay public policy of nature. And it may, for error in narrow terms the relative economic value of clear-cut logging or the recreational use of a forest. But how much are undiscovered medicinal plants worth? Or an individual species or ecosystem with no obvious special utility that is on the brink of extinction? The answers are elusive, perhaps unobtainable.

To some scientists, the exercise is pointless, or worse, because it devalues nature. That is not to say that while insurance companies may be able to put a dollar value on a human life more easily than on a wildlife, beyond economics. What is true of an individual human, some, is to say, in could be true of a wild species.

In the view of Dr. David Ehrenfeld, a conservation biologist at Rutgers University in New Brunswick, nature "is not a subject for cost-benefit analysis. Not only is it impossible to quantify the benefits, says, moral and ethical arguments for preserving species are more compelling than economic ones.

He notes that this is a minority view, but argues: The reason cost-benefit analysis has emerged is precisely because, in the moral argument against killing species are very powerful, even though economists like to pretend they are not. Cost-benefit is a kind of slogan screen that hides these arguments.