

# Buy Nature's Bargains

**T**HERE'S always been an Ararat ... To start the world all over at," said poet Robert Frost, referring to that handy mountaintop where Noah's Ark landed after the flood.

What species would Noah choose to restart today's world? Questions of that kind have led to a new idea of pricing, and thus perhaps protecting, nature's endangered services to hu-

manity - pollinating crops and purifying water, for example. We hope the US State Department's first annual report on the environment, scheduled for Earth Day, April 22, will refer to such innovative thinking. In the future, will the free market value these services?

Suppose all of us Noachs continue to preserve the natural wild insects that pollinate certain American plants. If those insects had to be replaced by domesticated bugs the value of the plants would be reduced by \$1.6 billion annually, according to researchers.

"Nature's Services," a recent book, suggests totting up the tasks you expect nature to do for you and recognizing the many species needed to do them. Editor Gretchen C. Daily, a Stanford University biologist, picks the natural renewing of soil fertility as one example:

Soil organisms are crucial to chemical conversion and physical transfer of nutrients. A square yard of pasture soil in Denmark was found to contain roughly 50,000 small earthworms, 50,000 insects and mites, and nearly 12 million roundworms. Take a look in your compost pile if you don't believe the experts: They might add the 30,000 protozoa, 50,000 algae, 400,000 fungi, and billions of individual bacteria found in a pinch (1 gram) of soil. They don't need us, but we need them, as a biologist puts it.

In addition to life-support functions such as renewal, cleansing, and recycling, the ecosystem services maintain the production of seafood, timber, fuels, fiber, pharmaceuticals, and foods. The point is that nature's services have value, easy to see, hard to quantify. They are "environmental capital" to be acknowledged by economists as well as environmentalists.

So ... can saving the earth be pri-

vatzed for its own good like everything else these days? Some would blame the marketplace for using up the planet for short-term gain. The new research tells why the marketplace can and should be in the forefront of protecting and prolonging nature's processes and resources.

Consider the prohibitive cost, if not technical impossibility, of engineering to replace natural processes. Suppose instead that a corporation invested in preserving natural systems so that they could continue such functions as flood control or treating waste.

## Gifts to the Earth

The latest World Wildlife Fund (WWF) venture is soliciting gifts not for its coffers but for the world. Among the first givers of these Gifts to the Earth are (1) four oil companies donating 320,000 acres, off Canada's Pacific coastline for a preserve for marine species, (2) Florida moving to protect North America's most extensive living coral reef system and (3) Mongolia, home to snow leopard and Siberian crane, pledging protection of 30 percent of the nation's lands.

You do not have to be a state or a corporation to join the benefactors. Household recycling is a Gift. So is using an efficient light bulb. Just start.

in restoring the watershed in such ways as buying land to control its use. Or it could invest \$4 billion in "physical capital," a purification plant.

New York chose the low-priced alternative (with some recently announced revisions), thus gaining "an internal rate of return of between 80 percent and 150 percent, and a pay-back period of between five and seven years, depending on the exact assumptions made about the timing of the costs and the savings." And those calculations consider only one of the watershed's services, purifying water. Professor Heal notes. Unlike a purification plant, the watershed also provides flood control.

Of course, the value of nature is more than dollars and cents. It's sunsets and wholesome air and beauties like those birches that Frost also wrote about. But when we think of all that nature does for us, its services must be worth investing in as well as enjoying - and exploiting. We're glad to find government units and businesses making such investments. We hope many more will join them.

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