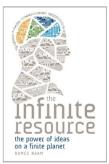
## **Commons Knowledge**



The Infinite Resource: The Power of Ideas on a Finite Planet

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The free market is such a powerful catalyst of innovation that we need to be very careful about where we *fail* to employ it. The inventions of the industrial revolution, telephones, electric light bulbs, cars, airplanes, radio, television, computers, DVDs, iPods, and iPhones are all innovative products, encouraged by the free market, that improve our lives. But we are once again living in the best of times and the worst of times. We are approaching *peak oil*—the point in time when global oil production will decline forever, food prices doubled between 2002 and 2010, catches of wild fish have plateaued, fresh water shortages are becoming more common, and deforestation continues. Today's population is consuming 1.5 planets' worth of natural resources, yet we have only one planet. Resource consumption will continue to get worse, if everyone on earth lived like Americans we'd be using up 4.4 planets' worth of natural resources.

Perhaps the most ominous warning of all is that our planet is warming. Even former skeptics now recognize that global warming is real. While many factors contribute, it is clear that carbon dioxide concentrations in the atmosphere are now higher than at any point in the last million years. The warming we are seeing is almost entirely man made. Forecasts now show seas rising three to six feet by the end of this century, enough to displace millions of people from coastal cities and villages. Extreme weather, pressures on agriculture, rapid species extinctions, and ocean acidification are all likely.

The evidence and the consequences are clear. We must find ways to produce food and energy that sharply reduce greenhouse gas emissions. How can free market mechanisms help?

There is a giant loophole in how we apply the free market today, it is called *The Commons*. The *commons* refers to those resources used freely by many, yet excluded from typical financial calculations. The oceans, rivers, lakes, and the air we breathe are now available free to any and all comers. This leads to the "Tragedy of the Commons" where waste and distortions occur from overuse of these essential resources. This market error is manifest today as overfishing, many forms of pollution, and the free emission of greenhouse gasses. The market isn't just neutral to pollution. If polluting saves companies money, the market *encourages* it.

"The key to that—to all of that—is to make sure the market directly values the natural resources we care about. . . . Pricing carbon isn't a big-government initiative. It's a way to *improve the market* by giving it access to information it doesn't have—the external costs of carbon emissions."

The author proposes this simple plan for creating a carbon *dividend*:

- 1. Tax carbon. For the first five years the tax is zero.
- 2. Raise the tax periodically and predictably until the emissions goal is met.
- 3. Tax imports from countries that don't have a carbon price, to level the playing field.
- 4. Give all the money collected back to the taxpayers. This is the direct dividend.

This is a tax on the bad rather than on the good, and it can be tax and revenue neutral. This simple plan provides insurance against the risks of peak oil, rising coal prices, and climate change.

With effective market incentives, innovation can unleash solar energy, desalinization, recycling, and continued increases in efficiency of materials and energy used. Our challenge isn't that we're running out of energy, it's that we're using the wrong source. To collect enough energy to provide for all of humanity's current needs, using *current consumer-grade solar technology*, it would take only 0.6 percent of Earth's land area. Because of the learning curve, every solar panel built makes solar energy cheaper. Every barrel of oil extracted makes oil more expensive.

This immensely important book is a joy to read. It is innovative, well written, clear, well researched, and scrupulously balanced. The author presents and examines the traditionally conservative viewpoints, the traditionally liberal viewpoints, the big business arguments, and the environmentalist arguments, clearly, factually, fairly, and completely. He embraces capitalism, free markets, nuclear energy, and genetically modified crops, *along with* government regulations and the imperative to shift to solar energy sources and reduce greenhouse gasses. He particularly courts conservative thinkers with appeals to free markets, highlighting successful ecological actions of Ronald Reagan and George Bush, and the opportunity to return money to taxpayers. He identifies the free exploitation of the commons as a form of socialism, rather than an example of free market forces at work.

The author is not only innovative and practical, he is optimistic. Throughout the book he identifies many available alternatives that can improve the lives of all future generations. The last chapter identifies four changes that we as a society need to make:

1. Fix our markets to properly account for the value of the commons.

- 2. Invest in research and development to fund long-range innovations.
- 3. Embrace the technologies that stand poised to improve our lives while bettering our planet.
- 4. Empower each of the billions of minds on this planet, to turn them into assets that can produce new ideas that benefit us all. Add to the *Knowledge Commons*.

The book ends with two very different tours of the future. One describes affluence and well-being for all, the other is quite grim. The choice is clearly ours, and this book clearly informs our choice.