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# “Smart and Green”

An Environmental Policy for the 21st Century



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## About the Rural Renaissance Project

The Rural Renaissance Project (RRP) explores solutions to the issues facing our rural communities. Many of the challenges can be traced to old public policy models which may no longer be appropriate in today's wide-open, fast moving trading environment. In addition, the psychological malaise within the agricultural sector, exacerbated by downward trending commodity prices, threatens to overshadow the best ideas, projects and opportunities that abound in rural areas. The RRP takes the view that there are opportunities in the midst of adversity that call for a new focus on the advantages of living and working in rural communities. These advantages are waiting to be discovered, both from within and without. Lost in the negative public discussion are many success stories of local people whose stubborn perseverance has just "made it happen". The RRP will examine these bright spots so that we can learn what works.

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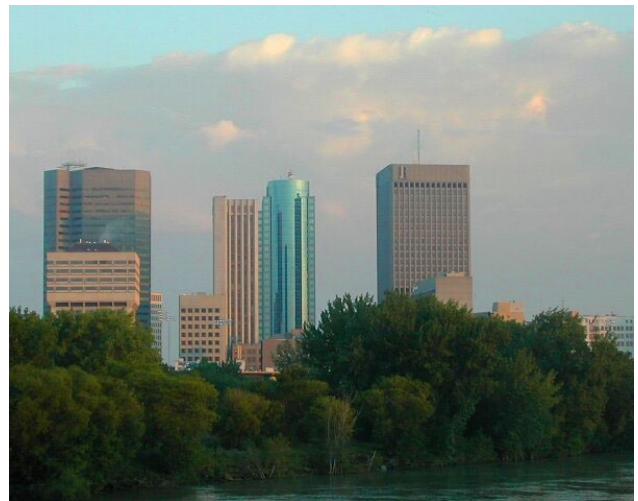
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AN ENVIRONMENTAL POLICY FOR THE 21ST CENTURY



The Frontier Centre for Public Policy is an independent, non-profit organization that under-takes research and education in support of economic growth and social outcomes that will enhance the quality of life in our communities. Through a variety of publications and public forums, the Centre explores policy innovations required to make the eastern prairies region a winner in the open economy. It also provides new insights into solving important issues facing our cities, towns and provinces. These include improving the performance of public expenditures in important areas like local government, education, health and social policy.

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# “SMART AND GREEN”

## AN ENVIRONMENTAL POLICY FOR THE 21ST CENTURY

### Executive Summary

- The environmental movement had its genesis in gloom-and-doom scenarios of global pollution.
- These dire views tapped a common-sense appreciation for the value of our natural surroundings.
- Human needs disappeared from apocalyptic “green” perspectives.
- A critical understanding of environmental solutions that exclude people is growing.
- The response of traditional “greens” to this development has often been hysterical and unfair.
- A new consensus, both “smart” and “green,” integrates the actions of our species with ecological health.
- Fundamental to it is an emphasis on an unbiased scientific evaluation of data.
- Modern environmentalists insist that collective actions produce real results, not just good feelings.
- A key element in the new approach is a healthy appreciation for the environmental benefits of wealth creation.
- It entails abandonment of the precautionary principle and the use instead of rational cost/benefit analysis.
- Government action to improve the environment works better when it engages incentives to change behaviour.
- Advanced technology is the friend, not the enemy of environmental quality.
- We are learning that public sector conflicts of interest are a major cause of environmental damage.



### Seven Principles for Making Policy “Smart and Green”:

1. Rely on unbiased science.
2. Focus on measurable results.
3. Recognize wealth creation as the wellspring for environmental improvement.
4. Substitute risk and cost benefit analysis for the precautionary principle.
5. Focus on incentives via property rights.
6. Embrace environmentally friendly technology.
7. Eliminate public sector conflicts of interest by separating resource ownership from regulation.

## Introduction

As a younger man, I remember well the doom-and-gloom themes that surrounded North America’s first celebrations of Earth Day back in the early 1970s. The Cuyahoga River in Cleveland, Ohio had been so badly polluted that, on June 23, 1969, it caught fire.<sup>1</sup> Authorities in Ohio insisted at the time that it was a “run-of-the-mill” event; oil and debris in European and North American rivers had accidentally ignited dozens of times throughout the previous two centuries, and the Cleveland fire was extinguished within a half hour.

But the media picked up on the incident and quickly made it into a powerful symbol of the pollution levels Western societies were inflicting on themselves. More than a month later, *Time* magazine ran a picture of a previous fire, and accompanied it with dire, colourful prose: “Some river! Chocolate-brown, oily, bubbling with subsurface gases, it oozes rather than flows. ‘Anyone who falls into the Cuyahoga does not drown,’ Cleveland’s citizens joke grimly. ‘He decays.’”<sup>2</sup> Pop singer Randy Newman’s song, “Burn On, Big River,” further engaged the public imagination and the myth of our communities drowning in their own poisons took off.



The negative energy fed off a common-sense appreciation of the value of our natural surroundings. Early in human history, mankind was completely at the mercy of the environment. Humans had little ability to change landscapes or manage environmental resources and basically had to accept the world as it was. Many pre-historic cultures had taboos and rules relating to the use of natural resources, most of which probably had their origins in a desire to ensure a continued supply of food from game and fish.

Indeed, the Bible contains one of the earliest conservation rules: “If a bird’s nest chance to be before thee in the way in any tree, or on the ground, whether they be young ones or eggs, and the dam sitting upon the young, or upon the eggs, thou shalt not take the dam with the young. But thou shalt in any wise let the dam go, and taken the young to thee; that it may be well with thee, and that thou mayest prolong thy days.”<sup>3</sup>

This marks the beginning of “human-centred” environmentalism, a philosophy that demands that environmental resources be conserved because that policy is good for people. The prohibition against killing the breeding stock of any species, the intent of that Biblical injunction, stands to this day as one of the tenets of modern wildlife management. But the philosophy behind environmental conservation has undergone major transformations ever since concerns were first expressed about the health of the world. Human-centred environmentalism, often referred to as conservation by its practitioners, has partly passed out of fashion in this age of urbanization. Modern society has subsequently disconnected with the very ecological processes that put food on the table.



Around the middle of the 20<sup>th</sup> century, a view arose that the environment had an intrinsic value apart from what humankind may or may not want. This spiritualistic view spawned the “Gaia hypothesis,” which thinks of the earth and all natural systems as one giant organism, with us humans as but one of the components.<sup>4</sup> First formulated by British atmospheric scientist James Lovelock in the mid-1960s, the idea achieved popular standing in 1979 when he published *Gaia: A New Look at Life and Earth*.<sup>5</sup>

The end point of this approach became known as “Deep Ecology.” That viewpoint explicitly reduces the importance of the human species among the life forms that share this planet: “We accept that true ecological sustainability may require a rethinking of our values as a society. Present assumptions about economics, development, and the place of human beings in the natural order must be re-evaluated. If we are to achieve ecological sustainability, Nature can no longer be viewed only for its commodity value; it must be seen as a partner and model in all human enterprise,” reads the mission statement of the Foundation for Deep Ecology.<sup>6</sup>

It was but a short step, then, to the conclusion that the environment *per se* and the animal components that make it up had a “right” to their own existence, separate and apart from whatever humans may desire. It is even a shorter step to the position that humans are basically interlopers and have no right, except in a very limited way, to manage or use the environment for our own ends.

The concept of intrinsic value is a false one; “value” is a human concept. Only humans have the ability to place a value or a priority on something. Value is therefore something that can only be placed in a human context, not something separate and apart from it. The concept of value presupposes people who are able to value. Similarly, “rights” are uniquely human concepts that have no application outside of human interaction. Reciprocal in nature, they cannot be applied to a natural world governed by its own rules.

The problem with this romantic view that non-human species have “rights” is that it can, and often does, indict the human race for any activities that affect its surroundings, even ones that serve very important purposes for furthering the lives and fortunes of people. No matter if residents of Cleveland benefit from the use of energy to heat their homes and fuel the transportation systems that bring them all manner of necessities and amenities, the pollution of the Cuyahoga River is *prima facie* wrong.

It’s a classic case of false alternatives and zero-sum economics. Within a system that meets human needs, it is possible to incorporate the values of environmental health. Indeed, we are witnessing the emergence of a more sophisticated environmentalism with room for both ecological health and sustainability and a full expression of human behaviour. That means being both “smart” and “green.”

### **The Two Cultures of Environmentalism**

The view that the environment has “rights” is a cornerstone belief of most environmental activist groups. All but the most radical deny this, but their track record belies their words. Even a cursory review of various activist campaigns reveals a consistent pattern of seeking to remove humans from the environmental equation. From stopping commercial forestry to anti-seal hunt campaigns to wilderness preservation efforts, the consistent message is that human use of the environment is always negative. Where the need for human use is acknowledged, activist groups always seek to curtail, restrict, reduce or legislate it. More often than not, they demand the interests of mankind be sacrificed on the altar of “green” ideology.

A corollary to this activity is the belittling or rare, grudging acknowledgement of any environmental progress. Despite the mounting evidence that many environmental indicators in advanced industrial societies are actually improving, most notably in the areas of air and water quality and wildlife conservation, a crisis atmosphere is heedlessly attached to every discussion of human use of resources.

These behaviours characterize the messianic zeal with which many “greens” pursue their agendas. Environmental activists are very aware that the media responds to passion and conflict, and have become quite skilled in media management. The constant bombardment of negative information and the creation of a perpetual sense of environmental crisis have affected the public, who often uncritically accept unsubstantiated conclusions. Pressure is applied to governments to “do something.” Do “what” is not often discussed; just do “something.” Politicians respond with unwise policy.

In this atmosphere, rational discussion about the environment rarely makes it to the front pages. As a consequence, many believe that, while the environment may be in good condition in their area, it is in very bad shape elsewhere, that the grass is actually “brownier” on the other side of the fence. The public fails to appreciate the magnitude of the environmental improvements that have been steadily taking place, at least in industrialized countries, because they don’t appear on the evening news. These “boring” discussions have been relegated to newsletters, think tanks, and blogs, all of which have a much more limited distribution than the panics typical in popular media.

This frenzy masks the existence of a strong conservation movement, separate and distinct from environmental activists. The members of this movement tend to be traditional and conservative folks who avoid the limelight and controversy. They typically work at the local level on wildlife conservation, habitat purchase, stream rehabilitation and the general enhancement of their local community. Often these are hunting and angling groups and clubs.



Much of this quiet local work achieves real environmental progress for the broader society at large. A recent example is the discovery of the ivory-billed woodpecker in Arkansas.<sup>7</sup> Thought to be extinct, the sighting of this species electrified the scientific community. What is not generally appreciated is the fact that the habitat where the bird was discovered, a bottom-land hardwood forest, was originally conserved by duck hunters. Yet with the re-appearance of the bird comes a very real fear in the waterfowl hunting community. Because the species is so rare, hunting in that area may be under threat. The very activity responsible for conserving the area in the first place may be forbidden, despite its success in preserving an important habitat.

Environmental activists and their organizations have until recently been largely exempted from critical thought. The perceived purity of their motives—“We just want a clean planet for our children”—prevented that, as did the genuine desire across a broad range of society to solve environmental problems. For a long time, moreover, the activist groups were considered “the only game in town.” But in the last decade or so, a counter movement of concerned environmental citizens has emerged to challenge their hegemony. This new movement, comprised largely of refugees from environmental activist groups, has challenged some of their basic assumptions.

Developing the right terminology and labels for these subjects, especially when we are referring to human groupings, can be a challenge. One wishes to be accurate and descriptive, but at the same time fair and distinctive. For those who elevate their cause to a religious crusade, the term “environmental activist” assumes a recognition that it refers exclusively to them. But the addition of this new category of environmentalist critical of such an approach means new terms are required.

To differentiate between the two cultures of environmentalism, both of whom are essentially activist but who differ from each other quite radically in their approach to problem-solving, I will from this point refer to them with different terms. In light of their oft-stated desire to re-make the modern world into something else, I will use the phrase “post-modern environmentalist.” The counter-movement, essentially those who believe in the ability of human society to apply modern solutions to environmental problems, I will call “modern environmentalists.”

Modern environmentalists have caused quite a stir both within the environmental community and society at large. Challenging and well-researched publications, such as *Saving the Planet with Pesticides and Plastic*,<sup>8</sup> Dennis Avery's 1995 book on modern agriculture, and Bjørn Lomborg's 2000 classic, *The Skeptical Environmentalist*,<sup>9</sup> have been both lauded and vilified by different audiences.

Dr. Patrick Moore, a founder of Greenpeace, has also become a staunch critic of post-modern environmentalism. The Forest Action Network, a British Columbia-based group, has dedicated a web page to him entitled, “Patrick Moore is a Big Fat Liar.”<sup>10</sup> Moore, as befits his nature, fired right back. In the March, 2004, issue of *Wired* magazine, he described post-modern environmentalists as “. . . the same pack of Luddites” who “hijacked a considerable portion of the environmental movement back in the mid-80's and who have become very clever at using green language to cloak campaigns that have more to do with anti-industrialism, anti-globalization, anti-corporate, all of those things which are basically political campaigns.”<sup>11</sup>



Moore posits that post-modern environmentalism is actually part of a larger political movement. Environmentalism is but one of the planks in a “progressive,” predominantly statist policy platform. Other elements of that platform include radical feminism, anti-Americanism and trade unionism, in addition to the factors listed by Moore above. For a lot of post-modern environmentalists, the issue has taken on quasi-religious overtones; many of their campaigns are designed to change the very values of the 21<sup>st</sup> Century. It is less an argument about facts than an exercise in proselytizing.

As a consequence, the public at large has for years identified environmentalism with more interventionist political parties. But that mistaken perception had a serious downside. If environmentalism is exclusively the purview of the left, no matter what right-of-centre or conservative parties or administrations did on behalf of the environment was seen as suspect. The fact that “left-wing” and “environmentalist” are perceived as synonymous actually encourages right-of-centre governments to downplay the environment as an issue. So the false labels become a self-fulfilling prophecy. If there is no political capital to be gained by paying serious attention to the environment, why do it? Other issues become priorities.

In order to make real and lasting environmental progress, environmentalism must be de-politicized and embraced as a serious policy issue by parties of the right, centre and left. It is far too important an issue to be left to political partisans.

The thoughts that modern environmentalists bring into the mix widen the debate. They integrate the desire for common-sense ecological sanity into the social and economic principles that have guided the success of societies in the Western world. We can have development, prosperity and environmental health all at the same time.

## “Smart” and “Green”: The Principles of Modern Environmentalism

Seven essential principles distinguish the modern environmentalist from the caricature that interventionist activists have made of the Green movement:

### 1. Rely on unbiased science.

In order to make rational decisions about environmental priorities and actions, we must have accurate and scientifically valid information. The computer world succinctly enunciates the dilemma by the phrase, “Garbage in, garbage out.”

Unfortunately, our state of knowledge about the planet has often become enmeshed in the kind of politicization described above. Too many environmental scientists have bought into a politicized environmental agenda. Careers and institutions are now based on that view, and the funding of research into the various arms of environmental sciences has often depended on conclusions that do not contradict conventional wisdom, predetermined outcomes or political correctness. As a consequence, only one side of the story is told, and it can hardly be considered science.



No better example is available than the torrent of criticism, most of it personal in nature, that greeted the publication of Bjørn Lomborg's *The Skeptical Environmentalist*. In fact, a scientific committee in his home country, ominously titled the Danish Committee on Scientific Dishonesty (DCSD), on January 6, 2003, labelled the book as “objectively dishonest.”<sup>12</sup> This charge spurred an investigation by the committee's governing body, the Danish Ministry of Science, Technology, and Innovation, which reversed the group's “findings” on December 17, 2003:

The Danish Ministry of Science, Technology and Innovation has today repudiated findings by the Danish Committees on Scientific Dishonesty (DSCD) that Bjørn Lomborg's book “The Skeptical Environmentalist” was “objectively dishonest” or “clearly contrary to the standards of good scientific practice.”

The Ministry, which is responsible for the DSCD, has today released a critical assessment of the Committee's January 6 ruling. The Ministry finds that the DCSD judgment was not backed up by documentation, and was “completely void of argumentation” for the claims of dishonesty and lack of good scientific practice.

The Ministry characterises the DCSD's treatment of the case as “dissatisfactory,” “deserving criticism” and “emotional” and points out a number of significant errors. The DSCD's verdict has consequently been remitted.<sup>13</sup>

A similar scathing review of Lomborg's book was published in the January, 2002, edition of the *Scientific American*. An eleven-page editorial, called “Science defends itself against *The Skeptical Environmentalist*,” denounced the book as a “failure” and gave space to four prominent environmentalists to attack its contents. Lomborg, offered one page in a future edition to reply, instead answered the critics point by point on his own web site.<sup>14</sup> *Scientific American* then forced Lomborg to shut down his web page with a law suit that charged him with copyright infringements because he quoted the magazine's charges in his rebuttal.

The four environmentalists challenged Lomborg in his discussions of global warming, energy, population and biodiversity. Their arguments about his use of data and their interpretation are interesting enough on their own, as are his detailed replies. But what does poison the well is the



feeling that certain “facts” are politically correct and others are not. Lomborg’s response identifies the problem quite clearly:

*My book clearly makes a claim to science and to be factually based. I openly state the facts and my sources, and thus anybody is free to point out where these are faulty or incorrect and of course, such errors will then be posted on my web site. Thus, there is no need to defend science from my book – any possible defeat of science was never the issue. The discussion is whether the statements in my book are correct or not. The need to make it sound like a battle of science against my book seems entirely to misplace and bias the focus. Rather, the standpoint that might need to defend itself from my book would be the alarmist environmentalism . . . .<sup>15</sup>*

In other words, questions need to be objectively addressed. Is the world warming and, if so, why? Is the world running out of energy or using it inefficiently? Is the earth’s population overwhelming the planet’s ability to sustain it without irreversible harm? Are the world’s species declining in number and, if so, to what degree and for what reasons? If challenges to these questions are to be crushed and suppressed by a philosophy of establishmentarianism, if science is to be placed at the service of a politically accepted emotionalism, no progress is possible.

## **2. Environmental actions and policies should have real environmental results.**

This may seem self-evident, but the environmental policy world is rife with examples of politically-driven environmental expenditures and programs that have resulted in precious little environmental gains.

Recycling of common materials is an obvious example. Much effort and energy, not to mention dollars, are expended by thousands of municipalities to recycle paper, glass, plastic and aluminium. There is not a shred of evidence that these materials are either in short supply or that disposing of them in a landfill causes environmental damage. Yet precious public money and energies are expended on costly recycling programs.

Are we really running out of space for landfill? Lomborg points out that, even if the U.S. population doubles by the year 2100 and even when it is assumed that waste generated per capita will increase at the same rates as today, that, “Of the entire U.S. landmass, the landfill required to hold this waste would take up one-12,000<sup>th</sup>—less than 0.009 percent.”<sup>16</sup>

Even so, despite the fact that we are not running out of such materials or the space in which to dispose of them safely, post-modern environmentalists love such programs. That’s because recycling is one of the few direct environmental activities that can be undertaken by urban residents who have few other ways to “help the planet.” A recycling agenda, based on the perception of a perpetual crisis and fed by compliant media, is close to being a universally adopted public policy. Pressure mounts on public officials to “do something” but in this case, as with many others, that “something” results in “nothing.” We have a lot of pain—and expense—for no gain.

Similarly, environmental licensing processes often waste resources but produce little or nothing with respect to environmental improvement. For most projects, environmental licensing procedures have become political forums, whereby the very existence of the industry in question becomes the subject for discussion, or *de facto* zoning hearings. The procedure itself is often more about consultation than about how to ensure that the development in question applies the most rigorous environmental standards to its operation. For most standardized industrial facilities, the relevant regulatory agency need only dictate certain standards and limits regarding emissions or practices and reserve its resources to ensure that these results are obtained once the development is in operation.



The development of Manitoba’s hydro-electric resources on the Nelson River system, for example, has been subjected to endless hearings and studies. But the end results—the impacts of hydro dams and the best practices for their operation—have been known for years. These hearings and studies are political exercises with foregone conclusions. They make armies of consultants and lawyers rich, but the resources they absorb could be deployed elsewhere to address environmental issues that are real and pressing. Issues related to water quality and fisheries management, for instance, are not given the priority they deserve, partly because time, attention and budgets are diverted by hearings and studies that attempt to re-invent the wheel.

### **3. Recognize that wealth creation is the wellspring for environmental improvement.**

Rich countries do the best job of protecting the environment. Whether it is having the wealth and technology to reduce harmful emissions, or reserving land for parks, the environmental track records of rich countries is much better than in poor countries. Rich countries are able to marshal the necessary resources to deal with pressing environmental issues. People who are hungry are more interested in trying to figure out how to get the endangered species they just spotted into their cooking pot than into a wildlife preserve.

Secondly, as citizens become wealthier they view a clean and healthy environment as a birthright, along with health care, a safe community and other modern amenities. This political pressure creates a public policy regime that promotes continuous environmental improvement. Environmental incidents like water quality in Walkerton, Ontario and the toxic spill into Alberta’s Wabumun Lake generate intense media coverage and public responses precisely because they are so rare; these events simply do not happen in modern societies and when they do the wrath of the public can be intense.

Modern environmentalists are fervent free-traders. The argument, based on economic principles of specialization and comparative advantage, that free and open trade enhances a country’s wealth has clearly been proven. And wealthy countries take care of their environments. The moral case for free trade, that opening the markets of rich countries to the products of poor, developing countries would enhance their process of wealth creation and bring both economic and environmental hope to millions, adds weight to that perspective.

### **4. Substitute risk analysis and cost-benefit analysis for the precautionary principle.**

The precautionary principle has become enshrined in many jurisdictions. It essentially restates part of the Hippocratic oath: “First do no harm.” It implies that, in the absence of certainty or near certainty, we should not undertake a development or action that might cause damage. It is a very rare case, indeed, where we have perfect information or absolute knowledge. But that does not change what we do know about a subject; we base rational decisions on what we know, not what we don’t. The precautionary principle in practice leads to an endless stream of arbitrary, unprovable assertions resulting in permanent paralysis, with decision-making based not on reason but fear.

The statistical methods underlying most scientific analyses are always dealing with uncertainty and probabilities. This is why limits, statistically expressed as “confidence limits,” are placed

around means and averages to express how confident the researcher in question feels about the result. Narrow limits imply more certainty than wide limits. Unfortunately in environmental science, wide limits are more the norm than narrow limits. That makes environmental decision-making more vague and complicated than it has to be.

The use of the precautionary principle, based on extreme or absolute risk avoidance, has been exacerbated by the charged media environment when a rare catastrophic event takes place. According to Lomborg, the problem with following that to its logical conclusion is that it ignores an important point. If we try to become safer in some areas, we spend resources that cannot be used in other areas. Resources, both financial and human, are limited and must be allocated. We often hear the plea, “Well, if it saves one life, then we should do X.” The problem with doing X may be that the law of diminishing returns kicks in, and we get little bang for our buck. But in the meantime, we have deprived another problem of resources where the return per unit of effort or expenditure would be much greater.

The 1992 Rio Declaration stated the precautionary principle in a slightly different manner: “Where there are threats of serious or irreversible damage, the lack of scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.”<sup>17</sup> Apart from the *pro forma* nod to “cost-effectiveness,” it was this statement that spawned the Kyoto Protocol whose cost, according to Lomborg, ranges between \$75 billion to a staggering \$346 billion a year, with the lower limit being quite unlikely. Lomborg further notes that, measured by its own data, implementation of Kyoto will delay any temperature increase by 2100 for only six years.<sup>18</sup>

We can surely find better ways to spend those huge sums that might achieve real environmental gains. The provision of clean water to the world’s poorest people would achieve significant and immediate environmental and health gains. Lomborg points out that, if the money it would cost for just one year to implement Kyoto were spent instead on clean drinking water, it could prevent two million deaths and illness for half a billion people every year in the Third World. The next year we could use that year’s Kyoto money to solve another problem.<sup>19</sup> But the precautionary principle ensures that inefficient deployment of resources becomes the rule rather than the exception.

##### **5. Restructure the incentives, not the values.**

The messianic zeal of post-modern environmentalists makes the conversion of others to the “cause” a primary goal. Rather than working within a modern market and social system that relies on incentives, post-modern environmentalists seek to change the system itself. Modern environmentalism embraces market-based economic systems and seeks to find incentive-based solutions to environmental problems.

Modern economics is all about describing how people, companies, and institutions respond to incentives. Indeed, the success of the entire market system based on prices revolves around incentives. “You get what you pay for,” and “You catch more flies with honey than with vinegar,” are two colloquialisms that state the same thing, more or less. Back in the 1970s, the first serious spike in oil prices spawned a new generation of fuel-efficient cars. Today’s high gasoline prices are nothing but good news for developers of alternate energy technologies.

Humans have short time horizons and local interests. We have mortgages to pay, kids to feed, and local communities to improve and have little time to spend on the “big picture.” Post-modern environmentalists refuse to devise ways to achieve their goals by harnessing these market signals. Deposits on beer bottles ensure that these items are recycled, high gas prices

drive people to buy fuel-efficient cars or to drive less, water meters result in reduced water consumption, tax breaks for nature encourage landowners to conserve habitats, and hunters and anglers are driven to conserve fish and wildlife populations for reasons of self-interest.

Values and incentives revolve around property rights. Property rights encourage conservation and environmental improvement; a difference that can be clearly seen in the differences in spending on home maintenance between owners and renters. This is also illustrated in cases where environmental resources have no existing property rights, most notably in our ocean fisheries. Open access resources result in what Garret Hardin famously dubbed “the tragedy of the commons.”<sup>20</sup> Since no one owns the resource in question, it is in everyone’s best interests to “catch that last fish” before someone else does.



In order to conserve common property resources, incentives must be structured to ensure that each and every relevant individual has an interest in its conservation. This is relatively easy in the case of air and water quality. Standards are simply legislated by the appropriate public body. But this technique is difficult to apply to most other natural resources. Hence we require the development of broad incentives that result in people taking appropriate action on their own, as in the case of water and electricity pricing, to encourage conservation.

## **6. Embrace environmentally friendly technology.**

Post-modern environmentalists have justifiably been criticized for rejecting much of the modern technological world, as if technology *per se* were responsible for environmental degradation. Nowhere does the technological controversy get more heated than in the discussion of agriculture and food production, especially the subjects of pesticides and genetically-modified organisms (GMOs). Agricultural technology has created massive increases in crop yields, with tangible environmental benefits.



First, the judicious use of herbicides reduces soil runoff from fields, thus preserving water quality. This occurs because herbicide use can be substituted for tillage, which can cause soil loss. Herbicides have allowed the development of zero-tillage farming systems that almost eliminate soil erosion; the crop residue that remains increases the level of organic matter in the soil. Enhanced carbon sequestration is a feature of zero-tillage farming systems.

Second, high levels of fertilizer use, coupled with zero-tillage systems, mean that high and increasing yields can be obtained from the same area of land. This allows society to reserve, through various incentive programs, vast tracts of land for other uses such as wildlife conservation. Furthermore, these programs mean that farmers are encouraged to farm their best lands and enrol other, more fragile lands in conservation. The United States implemented the Conservation Reserve Program (CRP), whereby farmers were provided with incentives to set aside land for conservation purposes.<sup>21</sup> Up to 45 million acres have been enrolled in CRP, with no overall loss in national agriculture output, a truly staggering achievement. CRP lands conserve wildlife, enhance water quality, preserve endangered species and have encouraged wildlife-based tourism, most notably guided hunting. From a food security perspective, the

United States has also ensured that the country has a “bank” of farmland that could be pressed into service, should the situation require. CRP was only possible because farmers intensified production on their remaining lands.

The environmental case for GMO crops is even more compelling. Not only are yields higher with most GMO crops, certain characteristics such as high yield and pest resistance can be spliced into these new varieties. In many cases, that allows more yield and less pesticide use.

In the case of alternative energies, it is not a question of whether they will replace traditional power sources but of when. The cost of these alternatives has been dropping by about 50% per decade and will one day be so cheap and reliable that they will become our primary sources of energy. Humanity has a long history of innovating and substituting newer superior technologies for older ones when they become cost-effective. That’s why we don’t heat our homes with coal anymore or ride around in horse and buggies. We found better ways of doing it.

From waste-water treatment plants, to smokestack scrubbers, to new solar energy technologies and new hybrid vehicles, modern technology can be applied to many environmental situations. They reduce humanity’s footprint on the earth while at the same time preserving a high standard of living and the personal freedom that results from such a lifestyle.

Modern environmentalism is not so naïve to think that there is a “technological fix” for each and every environmental problem. But technological innovation will spur remarkable solutions to many environmental conundrums. Unfortunately excessive regulation, along with the rising popularity of the precautionary principle, currently stifles such innovation.

## **7. Eliminate public sector conflicts of interest.**



The public sector is frequently the most significant polluter in the community. The problem is made even worse when the government is the owner of the resource that impacts the environment. One of the great ecological catastrophes of the 20<sup>th</sup> century is the shrinking Aral Sea which began when Soviet-era economic planners moved to drain the Aral watershed to irrigate a centrally planned cotton industry in neighbouring regions. Economic objectives overruled environmental practice and today a shrinking Aral Sea is an expanding, polluting salt flat.

In Manitoba, the Department of Conservation has a mandate to develop the province’s forestry resources and a mandate to conserve and regulate forest use. Manitoba Conservation also conducts quasi-judicial licensing hearings prior to the granting of an environmental licence. This dual and conflicting mandate ensures that neither forest companies nor citizens can be sure of a fair and impartial process, because the responsible minister is both the developer and regulator.

Public sector utilities like Manitoba Hydro have similar conflicts-of-interest. They are often used as tools for economic development and engage in capital developments for political purposes at perhaps inopportune times. The short-term job creation can be significant but so to can the additional financial burden. Similarly, because rate-setting is such a political process, governments have every incentive to ensure that citizens pay as little for a utility’s products and services as possible. This removes any flexibility that management may have had to deal with fluctuations in the marketplace.

The price system reflects the decisions of million of individuals in the marketplace. Governments that overrule these decisions create distortions which inevitably impact on the environment. In the electricity market, for example, Manitoba’s policy of pricing power far below market value artificially stimulates demand and reduces pocketbook incentives to conserve the resource. The environmentally detrimental result is a less energy efficient economy and about the highest electricity consumption per capita in the world.<sup>22</sup>

In 2002 a major malfunction of the City of Winnipeg owned sewer and wastewater plant released 437 million litres of raw sewage into the Red River. After an awkward legal delay, the federal courts levied no penalty at all on the City.<sup>23</sup> It is not unreasonable to posit that the sanctions and reaction times would have been much different had a private wastewater operator been responsible for the disaster or the people upstream had the opportunity to protect their property rights and sue for damages.



In order to become responsible stewards of the environment, governments should separate themselves from such conflicts of interest. They can do that by separating the ownership or commercial activities and resources from their regulatory functions.

## **Conclusion**

A new force for the environment has emerged to challenge the monopoly held by traditional environmental activist groups. Dubbed “modern environmentalists,” they embrace an optimistic, rational, and effective doctrine that says modern, free-market, wealth-creating industrial societies have the best chance of ensuring continued environmental improvement for the foreseeable future. The principles that animate them stand in sharp contrast to the values demonstrated by those who seek a monopoly on environmental improvement through the expansion of government mandates, regulation and taxes, to the detriment and expense of humanity at large.

One web site sums up the modern environmentalist quite eloquently: “Typically, the person who calls himself an environmentalist is really just a nature-loving conservationist. Appreciating the earth’s natural beauty and bounty, he is understandably concerned about trash, noise, pollution and poisons. Still, he sees the earth and its bounty as resources—resources for intelligent human use, development and enjoyment. At root, then, his concern for the earth is human-centered: he believes that this is our environment, to be used by people to enhance their lives, well-being and happiness.”<sup>24</sup>

That’s the challenge for a sane environmentalism, to put the needs of the human race back into the equation. It can be done, by the use of objective science to identify problems, by insisting that actions produce results in proportion to the effort, by embracing proven methods of wealth creation to pay for environmental progress, by substituting rational risk and cost-benefit analysis for the precautionary principle, by emphasizing incentive-based systems for environmental improvement, by embracing technology to improve environmental efficiency and, finally, by separating the public sector’s role as regulator from that of direct steward of resources and commercial activities.

An embrace of these principles will ground in the real world governmental and non-governmental policies that seek to enhance environmental quality. Their consistent use will assure Canada and the rest of the world of continuous improvement in our air, water and soil, as well as our standard of living. We can be smart and green at the same time.

## Footnotes and Sources

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<sup>13</sup> <http://www.imv.dk/Default.aspx?ID=233>

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