

Chapter #

SAVING THE PLANET TO DEATH

*OVERCOMING AND REFORMING THE MAINSTREAM ENVIRONMENTAL MOVEMENT:
THE FIRST AND MOST IMPORTANT BARRIER TO ECOLOGICAL SUSTAINABILITY*

Stephen Best

Conclusion

To will implies delay, therefore now do.

John Donne

The deadliest issue facing humankind today is our failure to achieve an ecologically sustainable global economy. That failure is killing more of us now than any other threat, and is wrecking any hopes or dreams we might wish for our children, our grandchildren, and the generations of children to come. It is burying our future.

The first and most significant barrier to our achieving ecological sustainability is not the “usual suspects” often identified by the environmental and animal protection movement: industry, government, globalization, nationalism, capitalism, consumerism, nor any of the other “isms.” The barrier now is those who would save our planet: the major environmental and animal protection non-governmental organizations (NGOs) themselves and, in particular, the caring, dedicated, and knowledgeable men and women who manage and govern them.

Of the hundreds of thousands of organizations struggling to protect the environment and animals, fewer than a thousand control the efforts of over 70% of the hundreds of millions of people who actively support environmental and animal protection causes. These major NGOs are in turn managed and governed by just a few thousand men and women. Thus, a few thousand people control the political effectiveness of hundreds of millions. The control of supporters that the managers and governors of the major NGOs enjoy flows from the fact that they, understandably, restrict access to their donor files, and are highly selective about the information that their supporters receive. As a consequence, the major NGOs control what most supporters believe and who they trust about environmental and animal protection issues. This belief and trust extends naturally to sympathetic media. As a result, the major NGOs are increasing their portion of the total monies available to address environmental and animal protection issues. But most importantly, the major NGOs control the political and economic activism that their hundreds of millions of supporters engage in.

The millions of environmental and animal protection supporters controlled by the major NGOs are the key to our achieving ecological sustainability. These supporters are the only people on the planet who might be made to appreciate and respond effectively to

the dire urgency of ecological sustainability *and* who have the necessary resources—the necessary power—to compel industry and governments to make the crucial reforms needed for us to achieve ecological sustainability. However, because of the self-interest, corporate conservativeness, and comfortable complacency of the major environmental and animal protection NGOs, this power—despite ever-increasing environmental destruction and human suffering—has never been utilized to its fullest. Even when the major NGOs have cautiously allowed the power of these many millions of people to safely trickle, it has had no adequate effect on achieving ecological sustainability.

The political, economic, and social changes of the magnitude necessary to achieve goals on the order of ecological sustainability happen only when sufficient coercive power is visited on those who benefit from and defend the *status quo*. Consequently, if the people who govern and manage the major environmental and animal protection NGOs cannot act with the urgency that the ecological sustainability crisis demands; if they cannot reform themselves; and if they cannot apply all the power they have—and now hold hostage within their hundreds of millions of supporters—then ecological sustainability cannot be achieved; human suffering and dying will escalate.

Many of the men and women who manage and govern the major environmental and animal protection NGOs understand the horror we are now enduring and the greater horrors to come because we are not achieving ecological sustainability. No other group of people is better able to save us from the dying and suffering today, and to start giving us tomorrow the future we want for our children. But, if the men and women who manage and govern the major environmental and animal protection NGOs cannot themselves make the revolutionary changes within their own organizations necessary to achieve ecological sustainability, then there is little reason to expect that anyone else—individuals, industry, government—can do so.

To conclude, the few thousand men and women who manage and govern the major environmental and animal protection groups are the first and most important barrier to ecological sustainability. It is they—not government, not industry, not the public—who must be petitioned, pleaded with, and convinced to overcome themselves and change. It is they who must be convinced to ask themselves, “If not us, who? If not now, when?” It is they who must be convinced to act. They are the first barrier and our last hope for ecological sustainability.

Introduction

*Apparent agreement masks the fight over what exactly
“sustainable development” should mean—a fight in which
the stakes are very high.*

Herman E. Daly

Here is the reality check on our attempts to achieve ecological sustainability. Every year, governments and politicians around the world spend hundreds of billions of dollars

implementing policies to protect the environment and animals. Thousands of responsible corporations invest heavily to reform their environmentally harmful practices. Thousands of scientists work to find new answers to ecological problems. Hundreds of thousands of NGOs manage millions of environment and animal saving projects and campaigns. Hundreds of millions of concerned people contribute tens of billions of dollars to the NGOs, and send as many petition signatures, letters, and protests to governments and industry. The result is that, in aggregate, for at least the last forty years, this annual activity fails to reverse the decline in environmental quality—a decline that continues to harm and kill more and more men, women, and children in every country. To be sure, there have been some notable environmental and animal protection successes, but they have all been overwhelmed by the general increase in environmental degradation. Given this widely acknowledged and well-documented failure, the only rational conclusion is that what all of us have been doing to protect the environment and animals these many decades simply does not work. If it did work, environmental quality would be improving. Therefore, the only rational course is to abandon what we have spent four decades proving does not work (and in some cases exacerbates the problem) and develop alternate strategies that experience and history suggest might. Tragically, that is not what we are doing.

Today, the overarching threat to our lives and civilization is our persistent failure to establish an ecologically sustainable global economy and culture. Ecological sustainability is—and always has been—the foundation issue for human communities and civilizations. Regardless of one's beliefs or hopes, without the necessary resources and security, they are moot. Everything begins with the environment. Exceed the carrying capacity of the environment, and civilization collapses. Yet because of our truly wonderful technologies and, in particular, our dependence on petroleum, the *Zeitgeist* is that our civilization—unlike that of the Mayans and others¹—is immune from collapse. Nothing could be further from the truth.

More people suffer and die from the direct and indirect causes of our continuing failure to establish an ecologically sustainable global human community than from any other cause.² This threat, and its dire consequences, diminish every person's life. It is likely that you, who are reading these words, are either personally suffering or have a friend or family member who is suffering or who has died because we—as a species, as a civilization, and as individuals—refuse or are unable to do what is necessary to achieve ecological sustainability. It is also likely that your personal response to this assault on you has not been sufficient to decrease the threat. The reason is our evolutionary shortcoming as a species inhabiting a modern, fuel-based, technological environment of our own creation. If you or your family are killed slowly enough, you are incapable of a commensurate emotional response. Killing you slowly—over years rather than a day, for example—does not invoke in you the necessary fight or flight response to survive. And, perversely, not only will you suffer or die, but also it is likely you will be convinced to aid and abet your own pain or premature demise in order to achieve your own short-term desires. If we want to survive, we will have to rely on our intellect, not our emotions. For us human beings that is always very difficult. We are not—as we like to delude

ourselves—a thinking animal that feels, we are a feeling animal that thinks. As one political operative observed, “Elections are won and lost on emotion, not logic.”³

Despite all the evidence, despite all the needless suffering, and despite all the needless deaths, the threat and deadly consequences of our failure to achieve ecological sustainability continue to increase. As the United Nations World Summit on Sustainable Development concluded in 2002,

“The global environment continues to suffer. Loss of biodiversity continues, fish stocks continue to be depleted, desertification claims more and more fertile land, the adverse effects of climate change are already evident, natural disasters are more frequent and more devastating, and developing countries more vulnerable, and air, water and marine pollution continue to rob millions of a decent life.”⁴

The threat, suffering, and deaths of humans and non-humans alike increase despite the fact that we—“we” meaning humans as a species and as a civilization, and a few informed individuals—have been aware for at least the last fifty years of what we must do to save our lives and the ecological foundation that supports us. Not only do we know what must be done, we also have the necessary scientific and technical skills, and economic and natural resources to do it. More importantly, a few of us—no more than a few thousand—have the political and economic power to make it happen.

In *The Challenge of Sustainability*, Mohamed T. El-Ashry, the Chief Executive Officer and Chairman of the Global Environmental Facility (GEF) asks rhetorically, “So, what will it take to protect our biological heritage, avoid the devastation that climate change could bring, sustain the soil and water that give us life, protect human health, and reduce the scourge of poverty and hunger?” Answering his own question El-Ashry writes, “It will take leaders from all walks of life who are willing to think and act differently and lead the way.”⁵ Think differently. Act differently. Lead the way. Notwithstanding that it was not El-Ashry’s intent, his admonishments are the stuff of social revolution, which is exactly what is required in order for us to achieve ecological sustainability. Nothing less will do.

Think differently. Act differently. Lead the way. These are the themes that underpin this chapter. The most important is “Lead the way.” Leading the way does not mean any of the following: courting public opinion; educating the public, the media, or government officials; presenting scientific research findings; leveling criticism; suggesting what must be done and when; peacefully demonstrating; forming partnerships with stakeholders; rescuing a few wild animals; restoring a “unique” eco-system of special interest; signing petitions; or mailing protest letters. We now know—or ought to have learned by now—that none of this is enough. It never will be enough to cause the political, social, and economic change on the scale necessary for humankind to achieve ecological sustainability. Leading the way means making revolutionary changes happen by acquiring and applying power. As Bertrand Russell noted, “Those whose love of power is not strong are unlikely to have much influence on the course of events. The men

who cause social changes are, as a rule, men who strongly desire to do so⁶ ... The ultimate aim of those who have power (and we all have some) should be to promote social cooperation, not in one group as against another, but in the whole human race.”⁷

The fundamental argument in this chapter is that to achieve ecological sustainability a qualitatively different grade—a revolutionary grade—of leadership is required. We need leaders who understand the challenges of ecological sustainability; who are willing and have the competency to acquire or to access the necessary power; and who have the skill to apply power effectively in order to compel social and economic change of a revolutionary order. It is unlikely they will come, despite El-Ashry hope, “from all walks of life.” The most likely group—probably the only group—in which these leaders might be found populates the boardrooms and the executive suites of the major environmental and animal protection NGOs. There are only a few of them, numbering in the hundreds or low thousands. As their names and mailing addresses are a matter of public record, one could easily compile contact information for all of them. These people already have much of the necessary power to influence the course of events, and among them are some of the most knowledgeable about the necessity for ecological sustainability. This chapter’s thesis is that achieving ecological sustainability—without incurring vast human suffering and massive environmental degradation—will probably not be possible *unless* leaders are found among those who now govern and manage the major environmental and animal protection NGOs who “are willing to think and act differently and lead the way,” something the major NGOs have failed to do—with only a few sporadic exceptions—for decades.⁸

This chapter began with its conclusion so that it will remain firmly at top of mind as the premises and arguments which support it are presented. The reason is that, taken at face value, the conclusion may seem simplistic and absurd, and perhaps, for some of those implicated, even disrespectful and offensive. The conclusion implies that most of the people now governing, managing and employed by the major environmental and animal protection NGOs must make changes in their own thinking and actions of a magnitude no less than that which they have been pleading the rest of the world to make.

The conclusion—and what it entails for the major environmental and animal protection NGOs—also serves as a predictor of the odds of achieving ecological sustainability. If the people who govern and manage the major environmental and animal protection NGOs are themselves unable or unwilling to make the necessary changes to achieve ecological sustainability, then it is highly unlikely that anyone else will, or even can. Therefore, how the major environmental and animal protection NGOs respond to what is actually required of them will be a strong—perhaps definitive—indicator of whether or not ecological sustainability can be achieved at all. For all these reasons, then, it is useful to keep this chapter’s “simplistic and absurd ... even disrespectful and offensive” conclusion in mind as the arguments for it are tendered.

The conclusion is predicated on three grand premises; all are contentious as are most aspects of the pursuit of ecological sustainability. The first is the urgent necessity for the global human community to move towards an ecologically sustainable economy

in order to secure a future not plagued by suffering, death, and despair. This premise is generally accepted by responsible independent authorities and agencies, and most environmental and animal protection NGOs. The United Nations Environment Program (UNEP), for example, reports that, “The evidence suggests that many areas of the world are on trajectories that will lead them into crisis and that little time is left for creating effective responses if deteriorating situations are to be stabilized.”⁹ However, many others are campaigning vehemently and, unfortunately, quite successfully against this view.¹⁰

The second premise is the optimistic assumption that it is possible—in theory—for the global human community to make the necessary political, social, and economic changes necessary to achieve ecological sustainability. Economist Herman Daly suggests that the “technical and economic problems involved in achieving sustainability are not that difficult.”¹¹ Nonetheless, the necessary changes are of such a revolutionary nature¹² that many informed and thoughtful people doubt that we, as a species, are ethically and intellectually capable of making the changes.¹³ Many also doubt if there is sufficient time left—even if the changes are made—to reverse the “sixth great extinction.”¹⁴

The third premise entails the conclusion. It is that the kind of revolutionary social, economic and political changes necessary to achieve ecological sustainability can only come about, not by some hoped-for spontaneous elevation of global environmental consciousness and responsibility, but rather by the deliberate political actions of a few individuals. Five centuries ago Niccolò Machiavelli observed that “One should take it as a general rule that rarely, if ever, does it happen that a state ... is either well-ordered at the outset or radically transformed vis-à-vis its old institutions unless this is done by one person.”¹⁵ Machiavelli’s conclusion was based on the history of the Roman Empire, a millennium before him; we have seen the accuracy of his conclusion borne out time and time again since. The human catalyst for revolution is, if not “one,” always just a few.

This chapter concludes, then, that the revolutionary changes needed to achieve ecological sustainability can come about only if, out of the ranks of those people who manage and govern the major environmental and animal welfare NGOs, there emerge a leader or leaders who will be the catalyst for what must be done. However, in order to allow effective leaders to emerge and force the necessary changes, the management and governance practices, policies, and programs of the major environmental and animal protection NGOs must change first. Only then can the organizations do what they have failed to do for these many decades: effectively exert to the maximum effect possible all of the political and economic power latent in their supporter bases. Indeed, so egregious and culpable are the past and continuing failures of the governors and managers of the major environmental and animal protection NGOs to exert the full weight of their latent political and economic power that they, as a group, now stand as the leading impediment to ecological sustainability. They are more to blame for our failure to move towards ecological sustainability than are industry or government.

To repeat for emphasis what was asserted above: if the powerful, highly informed people who control the major environmental and animal protection NGOs do not believe

that the danger of failing to achieve ecological sustainability is serious enough to warrant themselves changing—and exerting all of the power latent in their memberships to save and rehabilitate the ecological systems that support humankind—then why should any other person believe that the problem is serious enough to warrant changing their ways?

Thinking Differently

After all else has failed, men turn to reason.

Abba Eban, 1967

Think differently. Act differently. Lead the way. Acting differently and leading the way—if they are to achieve much—must begin with thinking differently. Thinking differently, however, does not mean developing novel ideas. Human history is long, broad, and deep with experience. There are libraries full of humanity's collected wisdom where one can find practical answers—political, economic, spiritual, scientific, and technical—to the dilemmas we face, including the problem of achieving ecological sustainability. No, new thinking is not required. What is required, first, is to reject most current paradigms of thought that, while self-serving, comfortable, and entrenched, demonstrably are not producing the necessary solutions. Second, it is necessary to think about the problem of ecological sustainability in a manner that is commensurate with the scale and demands of the issue. And third, with the magnitude of the issue in mind, it is necessary to embrace ideas and concepts that have proven their worth and efficacy on the scale required to develop and implement solutions. As to the question of who must think differently, the answer is not the “public” or the royal “we” or even the ubiquitous “they,” but rather those who have the potential to compel the necessary changes, can choose to act differently, and could lead the way: the men and women who govern and manage the major environmental and animal protection NGOs; this is the most likely pool from which the necessary leaders might rise.

Before any progress can be made about thinking differently, as El-Ashry asks, it is necessary first to acknowledge that all that is being done by government, industry, non-governmental organizations, and individuals—while some of their efforts and projects are undoubtedly necessary—is insufficient to achieve ecological sustainability. Just a few examples of the pervasive traditional strategic thinking that has not been adequate to deal with the problem of ecological sustainability will illustrate this fact.

But first, any discussion about the failures of the environmental movement should include a caveat. The environmental movement deserves much credit for some notable successes in a few countries: for example, the Montreal Protocol on acid rain, DDT bans, emission controls on motor vehicles, the elimination of lead in gasoline, and the protection of marine mammals. However, as laudable and needed as these successes are, they have not offset the general decline. No net gain in environmental quality has been realized, only a net loss.

The first example of poor and inadequate thinking about the ecological threats facing us is the 2003 World Wildlife Fund-Canada annual report: *Our first 35 years were a dress rehearsal*. WWF-Canada is one of the major and most influential conservation groups in Canada. They enjoy a close, collaborative relationship with industry and with Canada's territorial, provincial, and federal governments. They are consulted by industry and government. Their 2003 annual report is, in fact, a fund raising vehicle, so it may seem unfair to present it as evidence of WWF-Canada's faulty thinking. However, a comparison between WWF-Canada's history and the projects they fund and what is argued in *Our first 35 years were a dress rehearsal* suggests that the publication is an accurate portrayal of how the executive and board of WWF-Canada think about solving the issue of ecological sustainability. Moreover, it is what they are sending out to their supporters so presumably it is what they want their contributors to believe about saving our planet.

Page two and three of the report is a four-colour double spread. The background is a picture of a caribou migration. Overlaid on the picture is the bold headline "Now It's Showtime." A text line across the bottom of the page reads,

"Saving nature one hectare, one river, one inlet at a time isn't fast enough. So WWF is scaling up. We're taking the skills we've honed over the last four decades and we're going after the big stuff. Conservation can't wait. Neither can we."

The annual report then goes on to describe a number of, no doubt, worthy campaigns that are not qualitatively different from what the WWF has been doing over the course of its history in Canada. Under the headline on page 4, "Center Stage," three senior officers write,

"Our sights are set on something breath-taking. It's conservation on a grand scale. It's conservation that will make the world sit up and take notice. It's what is truly needed.

"What makes us think we can do it? WWF knows how to collaborate. We know how to work with Aboriginal people, business, government, and other conservation groups to save nature. We've proven it time and time again."

The facts on the ground contradict WWF-Canada's claim, notwithstanding that they tell their supporters that they have proven "time and time again" the efficacy of their approach to saving nature. Canada's environmental protection is getting worse, not better. It has been getting worse since at least 1970. In 1995, the Washington-based National Center for Economic Alternatives issued a report that documented a 38.1% decline in Canada's environmental quality between 1970 and 1990¹⁶—two decades during WWF-Canada's self-proclaimed "dress rehearsal."

More recently, in 2004, Canada's Commissioner of the Environment and Sustainable Development, Johanne G linas, reported,

"... I am concerned at signs that Canada's environmental status and reputation may be slipping. For example, the Conference Board of Canada rated the relative performance of 23 member countries of the Organisation for Economic Cooperation and Development (OECD) on a range of environmental issues, using OECD data. On that basis, Canada's overall environmental performance was downgraded from an already disappointing twelfth-place ranking in 2002 to sixteenth in 2003. Pollsters have also noted a decline in Canadians' confidence that their country is showing strong leadership on world environmental issues."¹⁷

From 1970 to 2004, the empirical evidence is that whatever the WWF-Canada and all of the other Canadian conservation, environmental protection, and animal groups had been doing for 35 years to save nature was not sufficient to halt, let alone reverse, the degradation of Canada's environment. Yet WWF-Canada is proposing doing nothing qualitatively different for the next thirty-five years, just more of the same. Thirty-five years of environmental degradation has not changed how WWF-Canada thinks about achieving ecological sustainability. The best that it can suggest is a quantitative change in its activities. Since 1970 the environmental movement has grown by 5000%.¹⁸ Yet, despite this quantitative growth in members and revenue, WWF-Canada's solution to Canada's degrading environment is more growth. There is no hint in *Our first 35 years were a dress rehearsal* of what is truly required: a qualitative change in thinking.

WWF-Canada is not unique. Most of the world's major environmental and animal protection groups have not qualitatively changed the way they think and approach environmental and animal protection and ecological sustainability issues since the 1970s.

The second example comes from the Environmental Defence Fund (EDF), a Washington-based NGO. The EDF published a calendar in 1996 that offered a 10-point program to "save the Earth" (EDF's phrase):

- "1. Visit and help support our national parks.
- "2. Recycle newspapers, glass, plastic and aluminum.
- "3. Conserve energy and use energy efficient lighting.
- "4. Keep tires properly inflated to improve gas mileage and extend tire life.
- "5. Plant trees.
- "6. Organize a Christmas tree recycling program in your community.
- "7. Find an alternative to chemical pesticides for your lawn.

"8. Purchase only those brands of tuna marked 'dolphin-safe.'

"9. Organize a community group to clean up a local stream, highway, park, or beach.

"10. Become a member of EDF."

As Peter Montague, the editor of *Rachel's Environment & Health News*, commented, "What I notice here is the complete absence of any ideas commensurate with the size and nature of the problems faced by the world's environment. I'm not against recycling Christmas trees—if you MUST have one—but who can believe that recycling Christmas trees—or supporting EDF as it works overtime to amend and re-amend the Clean Air Act—is part of any serious effort to "save the Earth?" I am forced to conclude once again that the mainstream environmental movement in the U.S. has run out of ideas and has no worthy vision."¹⁹

The EDF is not the only group to issue a ten point program to save the earth. The David Suzuki Foundation of Canada, which gives us a third example of inadequate strategic thinking, promotes its ten point "Nature Challenge: ten simple things you can do to protect the environment." Even if every Canadian took the Nature Challenge, it would be woefully insufficient to "protect the environment." Nevertheless, the David Suzuki Foundation says that its ten point list comprises the "10 most effective ways we can help conserve nature and improve our quality of life."²⁰

Again the World Wildlife Fund, this time the International body based in Gland, Switzerland, provides a final example of poor strategic thinking. In time for Christmas 2004, WWF-International earned the ridicule of Colin Isaacs, the editor of *The Gallon Environment Letter*, for a list it published called "Ten things not to buy for Christmas."²¹ The planet-saving list included such items as Beluga caviar in the number 1 spot and a Shahtoosh at number 5. A Shahtoosh is a high fashion scarf woven from the hair of the Tibetan antelope. As Isaacs suggested in his commentary, "Christmas in Panda Land," "Maybe WWF should get its head out of Harrods and start looking at some of the environmentally damaging things that ordinary people buy! Shahtoosh, indeed!"²²

More troubling is the quality of information that the EDF, the David Suzuki Foundation, the WWF and others are disseminating to their supporters: information that implicitly trivializes the issues and understates by orders of magnitude what is, in fact, required to "save the Earth." What people believe—which forms the basis for their actions—is wholly decided by the information they receive.²³ By giving their members misleading information—no matter how conducive to marketing their issue-based wares and raising funds—environmental and animal protection groups reduce the potential effectiveness of their membership base.

The consequence of this poor strategic thinking is that today in North America the major environmental and animal protection groups, despite their size and the support they

enjoy, are incapable of securing the passage of any major environmental legislation, such as that which was passed in the 1960s and 1970s. The movement is stronger in terms of supporters and donations, but weaker in effectiveness. The picture, with only a few notable exceptions such as, possibly, the German Greens, is much the same in the rest of world.

If it can be agreed that the way of thinking about achieving ecological sustainability for the last twenty-five years has not moved human civilization closer to the goal, although it may—at best—have retarded the rate of degradation, we can begin to look at the scale of the problem and the scale of the necessary solutions. After that, a discussion about acting differently can be begin.

It will not be necessary in this chapter, given its intended audience, to devote many words to the urgency of achieving ecological sustainability. However, it is worth reiterating the dire scale, the seeming intractableness, and the insidiousness of the problem to reemphasize that the current way of thinking about it has not been—and never can be—sufficient to implement the known solutions.

Consider, first, how long we have been aware of the need to achieve ecological sustainability by means other than suffering through uncontrolled catastrophic events. The horrific life and death consequences of human civilization *not* achieving ecological sustainability are well understood. In 1948, William Vogt warned in *Road to Survival* that

“... unless ... man adjusts his way of living, in its fullest sense, to the imperatives imposed by the *limited* resources of his environment—we may as well give up all hope of continuing civilized life. Like Gadarene swine, we shall rush down a war-torn slope of barbarian existence in the blackened rubble.”²⁴

A year later, Aldo Leopold raised the alarm in *A Sand County Almanac*.²⁵ In 1962, Rachel Carson echoed Vogt, Leopold and others in *Silent Spring*.²⁶ In 1992, the Union of Concerned Scientists issued a *World's Scientists' Warning to Humanity*. Signed by “some 1,700 of the world's leading scientists, including the majority of Nobel laureates in the sciences,” the warning said, in part,

“... a great change in our stewardship of the earth and the life on it is required, if vast human misery is to be avoided and our global home on this planet is not to be irretrievably mutilated.”²⁷

In 1997, the scientists re-iterated their warning, and noted that since 1992 “progress has been woefully inadequate. Some of the most serious problems have worsened. Invaluable time has been squandered because so few leaders have risen to the challenge.”²⁸

In 1998, David Pimentel published in *BioScience* “Ecology of Increasing Disease”²⁹ in which he reported that “we have calculated that an estimated 40% of world

deaths can be attributed to various environmental factors, especially organic and chemical pollutants.” Pimentel went on to warn, like so many before him,

“To prevent diseases, poverty, and malnutrition from worsening, the growing imbalance between the escalating human population and the earth's environmental resources must be dealt with. The crowding of people into urban areas; the movement of populations into new environments; the increased use of chemicals that pollute soils, water, and air; the misuse of antibiotics, leading to resistance in disease microbes; and growing malnutrition all contribute to the worldwide increase of human diseases. Thus, comprehensive, fair population-control policies combined with effective environmental management programs are required. Without international cooperative efforts, disease prevalence will continue its rapid rise throughout the world and will diminish the quality of life for all humans.”

In 2002, the Global Environment Facility (GEF) reported in *Challenge to Sustainably* that

“We have, in the last decade, seen environmental problems mount—from extreme weather patterns and melting glaciers that point to a changing climate, to air and water pollution that threatens human health, to deforestation and land degradation that are undermining the earth’s capacity to sustain humanity.”³⁰

Also in 2002, it was recognized by the organizers of the Johannesburg Summit 2002 that,

“When the United Nations General Assembly authorized holding the World Summit on Sustainable Development, it was hardly a secret— or even a point in dispute— that progress in implementing sustainable development has been extremely disappointing since the 1992 Earth Summit, with poverty deepening and environmental degradation worsening.”³¹

And in 2004, *The Living Planet Index 2004*,³² an annual publication of the World Wide Fund for Nature (WWF)—and just one of many such indexes—documented the same bad news. In the foreword to *The Living Planet Index 2004*, the Director General of the WWF, Dr. Claude Martin, reported:

“Unfortunately, the news is not good. The [Living Planet Index] declined by about 40 per cent from 1970 to 2000, which represents a critical blow to the vitality and resilience of the world’s natural systems. During the same period, humanity’s Ecological Footprint grew to exceed the Earth’s biological carrying capacity by 20 per cent. ...When we compare the current Ecological Footprint with the capacity of the Earth’s life-

supporting ecosystems, we must conclude that we no longer live within the sustainable limits of the planet.

“Ecosystems are suffering, the global climate is changing, and the further we continue down this path of unsustainable consumption and exploitation, the more difficult it will become to protect and restore the biodiversity that remains. We support the governments of the United Nations in their bold efforts to set and measure goals and targets but, having agreed them, we must redouble our efforts to work together to attain them. The figures contained in this latest report are a startling reminder that the time to act is now.”

What is evident from this half-century long litany of warnings, failure, and continued environmental degradation is that whatever the various governmental and non-governmental environmental and animal protection organizations and industry were doing for the last half century to protect the environment, while possibly necessary, was not sufficient to move the global human community towards ecological sustainability. At best, as E. O. Wilson has observed, “You could say that the rate at which [the environment is] being degraded has maybe been slowed a little bit as a result of the environmental awareness that we have. But it's continuing downhill.”³³

Why is that we can research and intellectualize the problem of ecological sustainability—even document the catastrophic consequences—and not respond appropriately? For human beings as a species it appears to be a matter of time scale. Human beings can have their health destroyed and even be grotesquely killed with little complaint as long as it is done reasonably slowly. Kill them quickly—such as happened with the September 11, 2001 attack on the World Trade Center—and the response can be emotionally charged, disproportionate, and attract overwhelming public support. Not to diminish the tragedy of September 11th, but the number of deaths was insignificant compared to the premature deaths in the United States caused every year by air pollution alone.

We understand, academically at least, that the problem of (and the solution to) achieving ecological sustainability occurs over a time span that tends not to excite an emotional response in most individuals and, therefore, in government and industry. In April 2000, a representative from Environment Voters made an oral presentation to the Canadian government's Standing Senate Committee on Legal and Constitutional Affairs. The witness's testimony included,

"Imagine, if you will, that tomorrow a local chemical producing company accidentally releases a toxic plume into the air that settles on Ottawa and kills — over a period of a few days — 2,000 people! This would be a Bhopal scale event. The sheer horror of the disaster would trigger a massive and immediate response from emergency, medical, law enforcement, and news services, and in the aftermath from political and legal agencies.

"The deaths would be devastating for the families involved, and severe health consequences would be suffered by tens of thousands for years to come. The economic effects would be in the hundreds of millions, perhaps billions of dollars. Governments at all levels would take measures to insure that such a tragedy would never happen again. The offending company would likely never resume operations.

"Contrast that with this.

"In Ontario this year, almost 2,000 people *will die prematurely* because of poor air quality. The only differences from the fictional scenario described above will be that these people won't die over one weekend, they won't die in one place, and the blame won't fall on just one company. But these 2,000 real people will die just as painfully and their families will suffer just as much. Another difference between the reality and the fiction is that as of yet no government is [prepared] to take measures to insure that the real [deaths are not repeated year after year.]

"The crime is that these 2,000 people are going to die needlessly. It's too late for them now, their fate has already been sealed, despite the fact that Canadian governments—particularly the federal government—have always had the legislative powers they needed to prevent their deaths. The reality is these people are going to die because our elected politicians and political parties have been compelled for perfectly valid political reasons not to exercise their powers in a way that would have saved these peoples' lives."³⁴

As it turned out the witness was dead wrong when he told the Senators about the need to kill 2,000 people to "trigger a massive and immediate response." Just one month later, the tainted-water tragedy in Walkerton, Ontario showed that killing seven people quickly would be sufficient.³⁵

While killing people quickly is a crime, killing them slowly is usually tolerated as an acceptable cost of doing business. Moreover, as long as people—including environmentalists—are killed slowly enough, they tend not to respond as if their lives are in danger. Thinking differently—despite the fact that being killed slowly tends not to invoke in us an intense emotional response—requires that we force ourselves to respond appropriately, commensurate with the suffering and deaths that failure to achieve ecological sustainability is causing.

Part of thinking differently, and therefore acting differently, is to consider solutions to achieving ecological sustainability in the context of a time frame that is relevant to the issue and not to the genetically hard-wired, short-term emotions of the human animal.

If we can accept that the way we have been thinking about the challenge and the enormity of achieving ecological sustainability has not been adequate to implement solutions, and if we can acknowledge and incorporate into our thinking the true scale of the problem, we can begin to understand the scale of the solutions and what must be done to realize them.

In considering the scale of the solutions, it is worth reiterating that novel approaches are not required. Just as some have been thinking accurately about the size of the problem, others—for half a century—have been suggesting strategies of the correspondingly necessary magnitude. In 1948, William Vogt wrote,

“Conservation is not going to save the world. Nor is control of populations. Economic, political, educational, and other measures are indispensable; but unless population control and conservation are included, other means are certain to fail. A world organization devoted to search for economic and political solutions that ignores the ecological is helpless as a bird with one wing. Indeed, it may force the human race deeper into the mire.”³⁶

“Drastic measures are inescapable. Above everything else, we must reorganize our thinking. If we are to escape the crash we must abandon all thought of living unto ourselves. We form an earth-company, and the lot of the Indiana farmer can no longer be isolated from that of the Bantu. ... An eroding hillside in Mexico or Yugoslavia affects the living standard and probability of survival of the American people.”³⁷

In 1980, André Gorz was writing,

“As long as we remain within the framework of a civilization based on inequality, growth will necessarily appear to the mass of people as the promise—albeit entirely illusory—that they will one day cease being ‘under-privileged,’ and the limitation of growth as the threat of permanent mediocrity. It is not so much growth that must be attacked as the illusions which it sustains, the dynamic ever-growing and ever-frustrated needs on which it is based, and the competition which it institutionalizes by inciting each individual to seek to rise ‘above’ all others. The motto of our society could be: *That which is good for everyone is without value; to be respectable you must have something ‘better’ than the next person.*”

“Now it is the very opposite which must be affirmed in order to break with the ideology of growth: *The only things worthy of each are those which are good for all; the only things worthy of being produced are those which neither privilege nor diminish anyone; it is possible to be happier with less affluence, for in a society without privilege no one will be poor.*”³⁸

And, half a century after Vogt, in 2002, the authors of the *Report of the World Summit on Sustainable Development* wrote,

“... we assume a collective responsibility to advance and strengthen the interdependent and mutually reinforcing pillars of sustainable development — economic development, social development and environmental protection — at the local, national, regional and global levels.”

“We recognize that poverty eradication, changing consumption and production patterns and protecting and managing the natural resource base for economic and social development are overarching objectives of and essential requirements for sustainable development.

“The deep fault line that divides human society between the rich and the poor and the ever-increasing gap between the developed and developing worlds pose a major threat to global prosperity, security and stability.

“We welcome the focus of the Johannesburg Summit on the indivisibility of human dignity and are resolved, through decisions on targets, timetables and partnerships, to speedily increase access to such basic requirements as clean water, sanitation, adequate shelter, energy, health care, food security and the protection of biodiversity. At the same time, we will work together to help one another gain access to financial resources, benefit from the opening of markets, ensure capacity-building, use modern technology to bring about development and make sure that there is technology transfer, human resource development, education and training to banish underdevelopment forever.

“We reaffirm our pledge to place particular focus on, and give priority attention to, the fight against the worldwide conditions that pose severe threats to the sustainable development of our people, which include: chronic hunger; malnutrition; foreign occupation; armed conflict; illicit drug problems; organized crime; corruption; natural disasters; illicit arms trafficking; trafficking in persons; terrorism; intolerance and incitement to racial, ethnic, religious and other hatreds; xenophobia; and endemic, communicable and chronic diseases, in particular HIV/AIDS, malaria and tuberculosis.”³⁹

The only adequate characterization of what the “representatives of the peoples of the world, assembled at the World Summit on Sustainable Development in Johannesburg, South Africa, from 2 to 4 September 2002”⁴⁰ are calling for is “revolution”—a political revolution, a social revolution, and an economic revolution. Unfortunately, the assembled representatives also extolled pure nonsense and inadequate strategic thinking when they suggested that the means to implement the necessary revolution is “sustained economic growth and sustainable development.”⁴¹ “Sustained economic growth” *and* “sustainable

development” is as feasible on a finite planet with finite resources and a finite sink for pollution as a perpetual motion machine. Daly argues, for example, that “Sustainable development ... necessarily means a radical shift from a growth economy and all it entails to a steady-state economy, certainly in the North, and eventually in the South as well”⁴²—something the representatives of the people were not ready to suggest in South Africa.

Nonetheless, despite the fact that parties to the World Summit on Sustainable Development have their heads in a “cloud cuckoo land”⁴³ when it comes to the economic mechanisms of implementation, they can see no other solution except a fundamental change in the global political and economic systems under which the richer nations prosper, and to which most less developed nations aspire. It is the necessary solution to the problem of achieving ecological sustainability. And, if it is implemented, it will dramatically affect the lives and the livelihoods of every person on the planet. However, we know from experience that it is also a revolution that those who benefit most from the current system will aggressively resist.⁴⁴ Ironically, it will also be resisted by those who would benefit most from such a revolution for the simple reason that human beings—the conservative, social animals that they are—tend to resist change. This necessary revolution will not occur—if it is to occur at all—because it is what we *ought* to do, nor will it occur because it is what must be done to achieve ecological sustainability and avoid environmental catastrophe. It will only occur if it is made to by revolutionaries.

Unfortunately, as the WWF-Canada annual report, the EDF 1996 calendar, the David Suzuki Nature Challenge, the WWF-International Christmas shopping list demonstrate, few organizations and individuals in a position to be agents, catalysts, and instigators for the revolutionary changes needed are thinking in this way. As Pimentel suggests,

“Historically, decisions to protect the environment have been based on isolated crises and are usually made only when catastrophes strike. Instead of examining the problem in a holistic manner, such *ad hoc* decisions have been designed to protect and/or promote a particular resource or aspect of human well-being in the short-term. Our concern, based on past experience, is that these urgent issues concerning human carrying capacity of the world may not be addressed until the situation becomes intolerable or, possibly, irreversible.”⁴⁵

Revolutions are always difficult. For that reason, most people argue and hope that one is not necessary to achieve ecological sustainability. They have faith that we can just slightly modify the present geo-political, economic system or, even better, make it give us more but with less pollution and more equity. This is in fact the U.N.’s view of sustainable development. The hope is that any plan to achieve ecological sustainability will not unduly disturb those who profit most from present practices, and who often contribute large sums to environmental causes. “Thinking differently,” however, cannot begin without the courage to acknowledge that current strategy of appeasement has not worked, is not working, and shows no signs that it will work in the future. Turning to

reason, those who doubt the need for a revolution should ask themselves how many more generations of failure or how much more degradation of the environment will be necessary before they will consider something other than the continued comfortable, and often self-serving, appeasement of the most powerful beneficiaries of the current system?

Before leaving this discussion of thinking differently about the nature and scope of the solutions necessary to achieve ecological sustainability, one final matter should be raised because it introduces the next section of this chapter. It is an omission in the *Report of the World Summit on Sustainable Development*: an omission that is endemic to these kinds of reports whether produced by international bodies, national governments and agencies, or NGOs, and is addressed in the next section of this chapter, *Acting Differently*. The omission is practical and proven strategies and tactics or even insights about how individuals or NGOs might go about actually making governments-of-the-day change public policy, or about how they might make other political and economic entities acquiesce to the revolutionary solutions required. Like so many reports before it, when it comes to the problem of actually making its suggested solutions happen, the *Report of the World Summit on Sustainable Development* is silent, and offers instead generic platitudes and the always futile appeals to cooperation and good will.

Acting Differently

Let us in the name of radical pragmatism not forget that in our system with all its repressions we can still speak out and denounce the administration, attack its policies, work to build an opposition political base.

Saul Alinsky, 1971

Earlier in this chapter, a quote from William Vogt included a reference to Gadarene Swine: “Like Gadarene swine, we shall rush down a war-torn slope of barbarian existence in the blackened rubble.” Vogt is referring to a fallacy identified in informal logic: the Gadarene Swine Fallacy.⁴⁶ The fallacy is the erroneous assumption that, if a majority group is moving, herd-like, in formation in one direction, it is going the right way. And, conversely, that an individual who is not in step with the herd is going the wrong way. To the group in formation, the odd sheep may appear to be going in the wrong direction or hold the wrong beliefs, but not to an ideal observer.

To an ideal observer—notwithstanding the arguments of the minority “Wise Use” movement and their sympathizers⁴⁷—the characterization earlier in this chapter of the problems, consequences, and solutions associated with attaining ecological sustainability fairly states what confronts us. Also, to the ideal observer, the best efforts to date intended to “save our planet” have not been sufficient to achieve ecological sustainability nor even for that matter to reverse the continuing trend of unsustainability. We have not even been able to slow the trend. At best, the increase in the rate of degradation may have been retarded. And yet, like Gadarene swine, responsible governments, industries, and

major NGOs continue down a path of principles, practices, policies, projects, and campaigns—including the shibboleth of “sustainable development”—that has proven it neither leads to ecological sustainability nor to the social equity and justice necessary to achieve that goal. Without doubt, some major NGOs, governments, and industries do things from time to time that are necessary and helpful. And, they can boast some important and necessary successes, but, demonstrably, it has not been enough. What must be done is what is both necessary *and* sufficient.

Given that all else has failed and holds little promise for the future, acting differently means employing concepts, strategies and tactics that have proven their efficacy—throughout human history—at changing the course of human affairs: specifically, the acquisition and the judicious application of sufficient negotiable power. To act differently, which implies acting effectively and making progress, proponents and advocates of ecological sustainability must understand and accept, no matter how personally distasteful or immoral it may seem to them, that the “fundamental concept in social science is Power, in the same sense in which Energy is the functional concept in physics.”⁴⁸ The exercise of power—in another word “politics”—determines everything that is decidable by people. Like termites and chimpanzees, we are a social animal. Without the support of a group, our chances of staying alive approach nil; our chances of building a civilization *are* nil. Politics is how we control and direct ourselves in groups—no matter how small or primitive, no matter how large or civilized. David Lavigne, the scientific advisor for the International Fund for Animal Welfare (IFAW), put it most succinctly: “What drives everything in our society is not facts, but politics.”⁴⁹ Lavigne was commenting on the lack of influence that science has on the development of Canadian public policy,⁵⁰ but his observation is more universal than that.

Power is the capacity and willingness of an individual, organization, institution, or state either to provide a benefit or to exact a cost. Depending on whom the wielder of power is, the benefits and costs can range from the extremes of a kiss, happiness, economic windfall, political success, and prestige to murder, bankruptcy, incarceration, torture, and death. Power is absolutely necessary, and nothing else will do, when one group wants to succeed at imposing its values on another, which is exactly what those who are advocating the need for ecological sustainability are trying to do.⁵¹ Alexander Hamilton wrote in the Federalist Papers, “What is power, but the ability or faculty of doing a thing? What is the ability to do a thing, but the power of employing the *means* necessary to its execution?”⁵² Unfortunately—and this is why progress is not being made—the majority of those involved in promoting the values of ecological sustainability are either frightened, reluctant, willfully ignorant of the necessity, or do not understand how to use power to achieve their ends. Many morally abhor the exercise of power, blaming it for our troubles. Some erroneously believe—or act as if they believe, which has the same effect—that public awareness campaigns, educating school children, the law, or scientific research will eventually produce enough spontaneous global behavioural changes in enough individuals who influence institutions, industries, and governments that ecological sustainability will result.

“Politics,” Bismarck said, “is the art of the possible.” Politics is, in fact—as Václav Havel observed—“the art of the impossible.”⁵³ Within the lifetime of many of the readers of this chapter, politics—the exercise of power—has accomplished much for good and ill that was once thought impossible: the unification of Europe, female political and economic equality in many of the Western Democracies, the end of the Cold War and the democratization of many of the former countries of the Soviet Union, the end of Apartheid in South Africa, the reduction of commercial whaling, labor and industrial safety improvements, the end of state-sanctioned segregation in the United States, universal health care in most of the Western Democracies, and so on. On the environmental front, where successes have been achieved it is usually when power—political and/or economic—has been applied effectively. For example, in the 1980s, the IFAW was able to reduce the Canadian seal hunt by 90% as a consequence of applying political power in the European Community, and economic power in the form of a Canadian fish products boycott in the United Kingdom and the United States.⁵⁴ In the 1990s, Greenpeace, by using its considerable power to influence consumers, was able to compel the British Columbia forest industry to improve its forestry practices, something no amount of scientific study, public protest, or appeals to the British Columbia government had been able to accomplish.⁵⁵ People for the Ethical Treatment of Animals has been able to marshal consumers to force much of the American fast food industry to buy animal products only from suppliers who meet the highest standards of animal care.

In the United States, much of the current environmental legislation came from the politically charged radical movements of the 1960s and the 1970s that “represented a vast bipartisan voting constituency.” Candidates discovered that their commitment to the environment had political relevance—which is power—and could influence whether they were elected or not.⁵⁶ By 1995, however, the major U.S. environmental groups had abandoned the effective use of their political and economic power and devolved into “paper tigers.” As a result, with no reason to be concerned about the major environmental groups, the U.S. Senate suspended funding for new prospective listings under the Endangered Species Act, and President Clinton and Vice President Gore, realizing the “vaunted organizing and lobbying power of the mainstream environmental movement had turned out to be a sham” began to abandon their environmental campaign promises.⁵⁷

For the most part, the major NGOs of the environmental and animal protection movements have abandoned the use of power—economic and political—in favour of non-confrontational or uncontroversial clean-ups and rehabilitation projects, scientific research, public awareness and children’s education campaigns, and law suits defending legislation that is generally inadequate to protect the environment or animals. In the political realm, where public policy is decided, they tend to confuse access and appearing reasonable to politicians with achievement.⁵⁸ The major environmental and animal protection NGOs are good at unearthing problems. They are very good at suggesting solutions. They are excellent at telling and chastising everyone, but themselves, what should be done to correct the problems and implement the solutions. But, they are hopeless at compelling governments, industries, and institutions to do what must be done to solve the problems.

What the last twenty-five years of environmental degradation should have taught the major environmental and animal protection NGOs is that, as big as they are, they never had, do not have now, and never will have the human and financial resources needed to clean up—let alone repair or reverse—the on-going damage caused to the environment by the global economy and culture. Nevertheless, they are working tirelessly to clean up eco-systems and rehabilitate endangered species. The major groups never had, do not have now, and never will have the research resources needed to uncover the full extent of environmental degradation and its effects on people and eco-systems, or do all the studies necessary to understand how best to repair and enhance the environment. Yet many groups spend a large portion of their budgets on scientific research. The major groups never had, do not have now, and never will have the educational resources needed to compete with the multi-trillion dollar, world advertising and marketing industry working to convince us that reckless, unsustainable over-consumption is the route to happiness. Yet groups continue to spend donor's funds on public awareness and educational campaigns. The major groups never had, do not have now, and never will have the legal resources necessary to prosecute enough offenders of environmental law—or sue enough governments which fail to enforce the law—to make any long-term difference. When environmental groups lose in court, precedents are often set which increase environmental degradation. When they win, governments often change the law to permit the environmental damage to continue. Yet environmental groups still rely on the courts to address environmental problems. Add fund raising and overhead to the list of activities above, and you have the budget items of most major environmental and animal protection NGOs. These activities—along with demonstrations and media stunts—have been the strategic and tactical bulwark of the environmental and animal protection movement for the last three decades. These activities have yet to produce a reversal in overall environmental degradation and it is certain they will not in the future. Indeed, a comparison of the environmental movement in the early 1980s, when it began to lose its effectiveness,⁵⁹ with the environmental movement of the early 21st century shows almost no changes in strategy or tactics. The same cannot be said of those who oppose the environmental and animal protection movements.⁶⁰ If Benjamin Franklin's definition of insanity, "doing the same thing over and over and expecting different results," is correct, then the environmental and animal protection movements are surely insane.

The problem—which has been obvious since, at least, the 1992 Earth Summit in Rio de Janeiro—is that the environmental and animal protection movement never had, does not have now, and never will have the necessary resources for its traditional strategies and tactics to protect the environment, let alone address the necessary social justice and development issues. The solution, which should be apparent by now, is that the movement, in particular the major NGOs, *does* have the financial resources and the public support to be a decisive political and economic power that can compel governments—that do have the necessary resources and the responsibility—to promulgate, fund, and enforce responsible environmental and social justice policies that will, over time, not only save and protect our environment, but also facilitate its repair and enhancement.

The means to clean up our environment, protect it from further degradation, and enhance it are well known. Almost every environmental issue or social justice issue facing the world today has an off-the-shelf solution. All environmental and social justice issues are being effectively dealt with somewhere, but not everywhere. True, in the area of the environment, some of the damage already done cannot be repaired. Many coral reefs, for example, are lost. We may never see vast schools of cod off the east coast of Canada again. Nonetheless, where there were once coral reefs or old growth forests or cod, new, but different and robust, eco-systems can evolve. An environment can be saved; all is not lost.

Given the daunting, revolutionary sweep of the means necessary to achieve ecological sustainability and the fact that nothing being done now is working at the necessary scale, we should ask the question, “Is it realistically possible to accomplish what is required to achieve ecological sustainability?” The answer is a qualified “yes.” We have never been in a better position—in theory, at least—to compel and implement the necessary revolutionary changes required. “We” does not mean humanity in general. Most people are not engaged in the struggle to achieve ecological sustainability; they simply suffer for our failures. “We” means those who are in a position or have the power to contribute to the solution.

Earlier it was said that people—including conservationists, environmentalists, and animal protectionists—will tolerate being killed, and even make common cause with their killers, if it is done slowly. Happily, the reverse is also true: people will tolerate being saved slowly. When we look back on 1948, it becomes apparent that had our fathers and mothers and their elected officials been compelled—through the judicious and sufficient use of power—to heed people like Aldo Leopold and William Vogt and been persuaded or forced to make consistent, modest improvements and concessions to ecological sustainability on the order of a one or two percent improvement every year (the rate of decline since 1970 reported in *Living Planet Index 2004*) we would be much better off today. Indeed, it is likely that many of our current ecological crises would have been averted or at least ameliorated, and, along with them, many national and global political and economic tensions and social injustices.

Fully or even significantly implementing solutions to achieve ecological sustainability in a short time frame—a decade or less, or even one generation—is likely not possible. Human societies, unless devastated by tragedy, simply do not and will not respond that quickly. What can be accomplished, safely and securely without undue hardship caused by the transition from one set of economic conditions to another—from an economy based on growth to a steady-state one,⁶¹ for example—is an annual net improvement of one or two percent. In many countries, with some indicators (air and water quality, and waste management), this rate of improvement has been exceeded.⁶² If this rate of improvement is achieved overall, we can expect that the global environment will recover. It will be different from what it is now and from some imagined Eden-like past, but it will likely not only be able to sustain itself and us, but also thrive. Life, as we know, has amazing recuperative powers.

A one or two percent positive rate of change is possible, and has been achieved in the past for peaceful undertakings of the magnitude being contemplated here. Roosevelt managed it when he implemented the New Deal and lifted the people of the United States out of the Depression.⁶³ Winston Churchill, George Marshall, René Courtin and others managed it when they laid the foundations, built upon by many since, for the European Union, arguably—given the histories of the nations involved—a more difficult task than achieving ecological sustainability. Regardless, achieving ecological sustainability is on the same scale as these undertakings.

It should be noted that the use of the phrase “one or two percent positive rate of change” unintentionally trivializes the effort required. This will be an enormous and challenging—perhaps even impossible—undertaking. Consider that today despite the billions of dollars of annual expenditures by industry, government, institutions, and organizations concerned about the environmental and social justice issues that decide ecological sustainability, a rate of change of zero has proved impossible. We have been unable even to prevent further declines in environmental degradation.

Globalization has exacerbated environmental degradation. Ironically, however, some of the very factors that make globalization possible make implementing an environmental protection revolution more possible now than at any time since Vogt wrote *Road to Survival*. These factors include more open and accountable governments in the Western Democracies, supra-national institutions like the World Trade Organization and the various trade conventions, increased wealth in the Western Democracies, and excellent, low cost global communications. All of these factors can be successfully exploited by the economically thriving major NGOs based in the Western Democracies. We also know—and have qualified and experienced practitioners of—the proven strategies and tactics that can be used to wield political and economic power effectively. All of these factors—in theory, at least—give the major NGOs the opportunity not just to influence but also, in fact, to control much public policy. One recent example of social justice groups using modern organization and communication tools was the successful campaign to defeat the Multilateral Agreement on Investment.⁶⁴ And, in the 2004 U.S. elections, the Internet as an organizing tool was again proven effective by MoveOn.org and www.DemocracyForAmerica.com (the evolution of the Howard Dean for President campaign).

It is well beyond the scope of this chapter to discuss fully how the major NGOs would go about reforming themselves in order to maximize the power in their supporter bases and compel governments and industry to adopt policies and practices that would lead to ecological sustainability. Comfort, however, can be taken from the fact that (like achieving ecological sustainability) novel ideas and practices are not necessary. Some NGOs are very efficient at applying power effectively, and are having the kinds of results that are necessary if ecological sustainability is to be achieved. These NGOs also tend to be very well-managed. With only a few exceptions, however, they tend to be smaller NGOs that—because of their limited supporter bases and reliance on volunteer staffs—are required to use optimum methods to achieve their ends. Indeed, so successful are these smaller groups that it is common for major NGOs to hitch a low-cost ride for fund

raising purposes on the smaller NGOs. These smaller NGOs have much to teach the majors. The most important is that what the best of the smaller NGOs are doing—particularly in the areas of governance, staff and volunteer relations, fund raising and donor relations, coalition building, government relations, and the application of power—can be scaled up for use by the major NGOs. Rather than retain very expensive consultants (whose prime objective is always maximizing billable hours and not the welfare of their clients) to help them deal with management and campaign problems, the governors and managers of the major NGOs would learn much by spending some volunteer time with these smaller groups. At the very least, the governors of the major NGOs should recruit their executives from the ranks of the smaller, successful NGOs (success means achievement not activity) and not from the scientific community, the corporate world, fund raising and non-profit management schools, law school, or government agencies.

From the viewpoint of a political activist or organizer whose primary purpose is achieving a well-defined objective, the most significant forms of power that the major NGOs have are political and economic. Political power is the capacity to influence who wins and who loses an election. Economic power is the capacity to influence what people buy or do not buy—in other words, profit and loss. Both these forms of power flow from the fact that the major NGOs enjoy the trust and support of millions of people whose contributions and, to a lesser extent, their votes and buying habits can be used to provide a benefit for or exact a cost from politicians and businesses.

The importance of the major NGOs using their power to the maximum extent possible is beyond exaggeration. Given that achieving ecological sustainability is about life or death, to do anything less is culpable. All public policy and all business decisions are negotiated by relevant actors from positions of power. Those with the most power (i.e. those with the capacity and willingness to provide benefits or exact costs) decide what course of action will be followed. Those without power—or those who will not use their power, like most of the major NGOs today—are irrelevant, no matter how compelling or just their cause or how much public opinion they have on their side. Most people's decisions are based on self-interest. Therefore to achieve ecological sustainability, it will be necessary for the major NGOs to use their political and economic power to make it in the short-term political best interests of politicians and economic best interests of business to make the small incremental changes discussed above. The more power they use and the more routinely they use it, the more relevant they will become, and the more progress will be made. Also, power begets power. The more it is used the stronger it becomes—no different than a muscle or a mind.

Most executives and governors of the major NGOs will be immediately aware that to exercise power as described above would mean dramatic organizational restructuring. For example, charitable status—which carries with its many benefits debilitating restrictions that render NGOs politically impotent—would have to be abandoned. For the same reason, so would reliance on funds from many foundations and large donors. Political action, particularly electoral politics, and economic action, in the form of consumer boycotts and endorsements, would become the campaign mainstays of

the major NGOs. Projects that ought to be done by government because they are in the broad public interest and are now done by NGOs—for example, land acquisition, wildlife rescue programs, and companion animal shelters—would have to be triaged, and the liberated funds used to pressure governments (who can be held to a higher level of accountability and transparency than non-profit organizations) to take on those responsibilities. Changing the law and making new laws through politics—pressure and electoral—would replace challenging laws in court. The governors of the major NGOs would have to require their executives and staffs to design and implement campaigns that would produce measurable results that would demonstrably move us toward the goal of ecological sustainability. Too many NGOs confuse activity with achievement; because activity is less demanding than achievement, it becomes the default. Activity is a meeting with a legislative aide, an audience with a Senator, testimony before a Parliamentary committee, ordering a public opinion poll, running a full page ad, and protests. Achievement is a law passed that increases funding for public transit, a national building code amendment that improves energy efficiency, thirty percent of a national coastline being declared a non-consumptive marine sanctuary, and an end to the Canadian seal hunt. Activity is a study of global poverty that concludes that the rich nations should do more to alleviate poverty. Achievement is an international minimum wage subsidized in the early years by the Western Democracies. Activity takes work. Achievement takes more work *and* the application of power. Activity requires scientists, lawyers, educators, and middle managers. Achievement demands political operatives, social activists, and community organizers. And, to insure the power in their supporter bases is used effectively, the governors of the major NGOs would have to reward and promote those with a record of achievement, and treat less handsomely those whose record is merely activity, increases in funds raised, and the avoidance of problems.

It is worth cautioning that just as societies and nations cannot be reformed too quickly, neither can large NGOs, no matter how urgent the need. The total reformation of a multi-million dollar NGO with hundreds of thousands of supporters and hundreds of employees could take a decade; in some cases, because of the internal culture of an NGO, total reformation might never be achieved. The major NGOs are like societies in that if progress is to be made they must be reformed cautiously, incrementally, and fairly—with due regard for everyone's self-interest. Anything less, as with nations, will result in failure.

Yes, it might be possible to implement the social revolution necessary to achieve ecological sustainability. We know what the objectives are and the necessary reforms to achieve them. There is good evidence that the changes needed can be realized through small, incremental, economically and socially tolerable steps. There are excellent, low-cost global communication systems to facilitate political organizing and information dissemination. There are the national and international political, economic, and legal institutions that do respond, if sometime reluctantly, to pressure, and that are competent to implement and enforce the changes. The Western Democracies have the necessary economic wherewithal to finance the changes. Lastly, there is a large, well-informed, affluent constituency that has already demonstrated its commitment and willingness to support initiatives to compel reluctant governments and recalcitrant corporate entities to

implement the necessary public policy and economic changes that would lead to ecological sustainability.

However, notwithstanding the favorability of the current social, political, and economic environment for achieving ecological sustainability, it is important to realize that actually achieving it will be very, very difficult. Those who now profit from or who are comfortable in the present system will aggressively resist every change—no matter how trivial or incremental—that that would adversely affect them however slightly. To achieve ecological sustainability, we must expect and plan for every advance to be a bitter and hard fought battle. Winning those fights will require the use of strategies and tactics similar to or, preferably, more aggressive and effective than those used by the advocates for those interests and individuals who benefit from economic inequality, lack of opportunity, social injustice, and a degraded environment.

To take advantage of our knowledge of the problems and solutions associated with achieving ecological sustainability, the enhanced global organizing environment, and the untapped economic and political power in the progressive NGOs, particularly the major environmental and animal protection organizations, leaders are required—leaders who, as El-Ashry pointed out, are willing to think and act differently and lead the way.

Leading the Way

Those who believe in social change must fully accept their own leadership role in the process and recognize that neither politicians nor political parties are the prime movers of progressive change.

Randy Shaw, 1996.

A discussion about leaders involves at least three elements: the necessity of leaders, where they might come from, and whether it is likely they will emerge. The first two elements are relatively easy to dispose of. The third is so problematic that it may, in fact, be the single element that will doom any hope of humankind achieving ecological sustainability without suffering Vogt's "rush down a war-torn slope of barbarian existence in the blackened rubble."

If it is accepted—as has been argued above—that to achieve ecological sustainability a social movement based on the judicious and sufficient application of coercive power, rather than persuasion, is required, then leaders are a fundamental necessity. It is rare for organizations that rely on democratic consensus to develop strategies and tactics that will produce the most effective application of power. In organizations—particularly non-profit organizations—democratic or collegiate consensus decision making tends to produce not the best decision but usually the least objectionable one. As Machiavelli observed, "though the many are incompetent to draw up the constitution since diversity of opinion will prevent them from discovering how best to do

it, yet when they realize it has been done, they will not agree to abandon it.”⁶⁵ Leadership is a “vital ingredient in the effectiveness of organizations.”⁶⁶ Saul Alinsky has argued that the “building of many mass power organizations to merge into a national popular power force cannot come without many organizers.”⁶⁷ The majority opinion—and the majority practice—is that leaders are necessary, and little can be accomplished without them: “the greater the need for economic and social change, the greater the need for leadership to guide the process.”⁶⁸

El-Ashry suggests that “leaders from all walks of life” are needed. Perhaps, but in the beginning it is likely that the initial potential leaders of a power-based, ecological sustainability movement are currently active in the existing environmental and animal protection NGOs. It is within these NGOs that people with the necessary leadership, political, and management skills, and who have the greatest understanding and appreciation of the urgency to achieve ecological sustainability,⁶⁹ could likely be found. What is also true is that the environmental and animal protection movement globally, but particularly in the Western Democracies, enjoys enough financial and popular support to become—in theory—the power-based mass movement necessary for humankind to achieve ecological sustainability. However, a closer look at the environmental and animal protection movement reveals that the necessary, sufficiently funded and supported leaders may remain still-born, unless the men and women who manage and govern the major NGOs can think and act differently, as El-Ashry asks, and reform their own organizations.

The necessity for reform stems from the fact that the major environmental and animal protection NGOs control most of the financial resources and access to the supporters of the movement. In the United States, for example, the “twenty-four organizations that comprise the mainstream sector of the [environmental] movement” receive 70% of the donations.⁷⁰ According to GuideStar,⁷¹ the national database of U.S. charitable organizations, there are over 33,000 environmental and animal protection charities in the United States; that number does not include non-profit organizations that do not qualify for charitable “501(c)3” status. A small sampling of United Kingdom statistics⁷² produces similar results. Worldwide, a few major NGOs essentially control the millions of supporters, and therefore the negotiable power, of the environmental and animal protection movement.

It is important to appreciate that this concentration of resources and supporters in a small number of NGOs is more insidious and debilitating than may appear at first glance, and yet, ironically offers more reason for hope. Most of the people who actively support environmental and animal protection contribute to and are loyal to the major environmental and animal protection groups. This can best be understood in terms of brand loyalty, by the enormous marketing power of the major groups, and by the fact that most, if not all, of the information that supporters receive about their organizations and the issues is controlled by the organizations themselves. Organizations do not criticize themselves. As James Q. Wilson suggested “the behavior of persons who lead or speak for an organization can best be understood in terms of their efforts to maintain and enhance the organization and their position in it.”⁷³ Consequently, the enormous latent

political and economic power that the environmental and animal protection movement has is, for all practical purposes, inaccessible without the permission of the men and women who manage and govern the major NGOs. They are the gatekeepers to the political and economic power needed to achieve ecological sustainability. The probability of leaders—no matter how competent—emerging independent of the major NGOs, and then somehow acquiring the necessary resources to influence public and economic policy, is very low to impossible.

Nonetheless, there is hope. The major NGOs are all sympathetic to the need to achieve ecological sustainability, and their numbers are very small, indeed. Depending how “major NGO” is defined, the number of groups in the United States, for example, is less than 500. In the United States, there are 107 environmental and animal protection charities which raised more the \$20 million, and 306 which raised between \$5 and \$20 million.⁷⁴ While non-U.S. statistics are more onerous to compile, it is likely that in other Western Democracies the numbers, relative to their populations, are not too dissimilar. What these statistics demonstrate is that the actual number of men and women—the executives and governors—who control the environmental and animal protection movement and can decide, for all practical purposes, whether or not it can ever unleash all its latent coercive power and achieve ecological sustainability is quite small, a few thousand at most. Moreover, among these few thousand are many men and women who fully understand exactly what is at stake in the global pursuit of ecological sustainability.

No matter how determined a trustee or executive of a major group might be, reform of any large organization is difficult, and often proves impossible.

“Broaching questions about the future with almost any mainstream [environmental organization] leader will draw one into a discussion of federal rulemaking, organizational development, or fund raising strategies—likely items on the agenda of the next board meeting. When leaders do take time to reconsider their mission and explore a vision of the future ... they find themselves restrained by the imperatives of their benefactors and the sheer size of their organizations. They tend to continue on the track that has kept them alive thus far, whether it protects the environment or not.”⁷⁵

In the Western Democracies, peaceful, revolutionary social change of the kind under discussion here is, for the most part, initiated by non-governmental, non-profit, socially progressive public interest organizations. They alone tend to be motivated not by moral or economic self-interest, but rather the common good. However, by their very natures, almost all such non-profit organizations—particularly when they grow and commoditize their issues—suffer from a mutually-reinforcing range of internal and external impediments that prevent them from being as effective as their budgets and memberships would allow. These impediments result in a *Through the Looking Glass* situation: non-profits—unlike business, labor, or political organizations, for example—do not need to actually achieve their objectives in order to thrive. The positive feedback mechanisms that relate to achieving their stated goals—i.e. saving harp seals, panda

bears, or the earth—do not function to keep non-profit and charitable organizations on track. As a result, for non-profits—particularly environmental non-profits—losing is an option, and activity tends to become a substitute for achievement. In contrast, if businesses fail to earn a profit, they go bankrupt; if labor unions fail to improve wages and working conditions, their executives are voted out of office; and if politicians fail to benefit their donors and relevant voting constituencies, they lose elections. The managers and governors of environmental and animal protection NGOs are not held accountable with comparable feedback mechanisms when they fail to achieve the objectives that they sell to their supporters. All of the important economic and career feedback mechanisms that influence NGOs and their staffs and managers relate to fund raising and supporter acquisition, not to achieving the purposes of the organization. Further exacerbating this bizarre environment is the fact the managers of the NGOs control most of the information that their customers receive about their performance and successes. All of the third party organizations, like the Better Business Bureau, for example, evaluate NGOs on their accounting and audit practices not their achievements. For the donor, this is as absurd as deciding to buy a car based on which accounting firm an automobile manufacturer retains. The situation is so egregious that it is often better financially for a non-profit to lose than to win. Charitable status, which is cherished by many groups in order to attract tax deductible donations, compounds the problem by restricting NGOs to exercising only an insignificant fraction of the power in their supporter bases—a fact fully understood by politicians.⁷⁶

Indeed, the *Alice in Wonderland* regulatory framework and Topsy-Turvy financial environment in which non-profits operate is so antithetical to achieving their public interest objectives that the larger—and potentially more influential—a non-profit becomes the less effective and aggressive it tends to be. A truly sickening comparison of trends underlines this situation. The first trend is that since 1970, the environmental movement has increased in funds and membership by about 5,000%.⁷⁷ Today, the movement is a multi-billion dollar industry—worth \$6.95 billion⁷⁸ in the United States in 2003 alone, where "chief executives at nine of the nation's 10 largest environmental groups earned \$200,000 and up, and one topped \$300,000. In 1997, one group fired its president and awarded him a severance payment of \$760,335."⁷⁹ In 2002, one group, The Nature Conservancy, Inc., raised almost a billion dollars.⁸⁰ Tragically, the other trend is that while the movement was enjoying 5,000% growth, the environment it was supposed to protect suffered a degradation of quality—and of its capacity to sustain life—of 40%.⁸¹

About the environmental movement, sociologist Robert Nisbet wrote, "When the history of the twentieth century is written, the single most important social movement will be judged to be environmentalism."⁸² His prediction could not have been more wrong. Because of the impediments alluded to above, the environmental movement—a globe-girdling, multi-billion dollar movement, financially supported and trusted by hundreds of millions of people—has been a spectacular failure, despite the best efforts of some of the most dedicated, self-sacrificing people one might ever hope to meet. Perhaps it is true that things would be worse without the environmental and animal protection movements, but the promise—the implied contract with supporters—made to this day, and the reason people still donate and protest, was not to slow environmental

degradation, but to end it and reverse it. It seems that even environmentalists—who are the most knowledgeable about the fatal effects of environmental destruction and the failure to achieve ecological sustainability—can be killed slowly without too much complaint.

Why has the environmental movement failed to protect the environment? Analyzing why environmentalism failed to become the "the single most important social movement" of the twentieth century has become a political science and publishing cottage industry, as has contriving fixes for the environmental movement. Whether it is Mark Dowie's *Losing Ground*, Pulitzer Prize winner Tom Knudson's series of articles for the Sacramento Bee, or Peter Montague's excellent Environmental Research Foundation, they all miss the point. The environmental movement cannot save the environment. All it can do—which is what is necessary and sufficient—is use its awesome political and economic power to leverage and force governments and industry to do it. This is what it has failed to do since the mid-1980s. This is why the environmental movement has failed to save the environment.

Perhaps, it can be seen now why it was reasonable to assert in the introduction to this chapter that,

“... so egregious and culpable are the past and continuing failures of the governors and managers of the major environmental and animal protection NGOs to exert the full weight of their latent political and economic power that they, as a group, now stand as the leading impediment to ecological sustainability. They are more to blame for our failure to move towards ecological sustainability than are industry or government.”

Within the environmental and animal protection movements are the leaders and resources necessary to create the kind of global power-based movement needed to achieve ecological sustainability. But those leaders will never emerge, and those resources and powers will never be unleashed, unless the gatekeepers—the senior executives and governors of the major environmental and animal NGOs—liberate them. These gatekeepers have the power to prevent the awful escalation of the human tragedies so many are needlessly suffering now, and that so many authorities have been warning us about for so many years. It may turn out that it is beyond the will and abilities of enough of the few thousand men and women who control the major environmental and animal protection NGOs to reform their organizations; to begin to use their power as effectively as their predecessors used theirs in the 1960s and 70s; and to lead the necessary wave of power-based environmental activism that might result in the social changes needed for us to achieve ecological sustainability. As Lester Brown observed, “Achieving a sustainable society will not be possible without a massive reordering of priorities. This is in turn dependent on political action by individuals and by public interest groups ... If we fail, it will not be because we did not know what needed to be done. Unlike the Mayans, we know what must be done. What we will soon discover is whether we have the vision and the will to do it.”⁸³ If those few men and women who are most sensitive to the urgency of achieving ecological sustainability, and who control the power necessary to achieve it, do

not have the vision or the will to even reform their own organizations (a less challenging task than what they are asking the rest of us to do) then there is little hope that anyone else will be able to reform the global society.

Since Biblical times two questions have resonated in the minds of those men and women whom fate has burdened with the opportunity and means to do great good and prevent great harm. To a person, the questions that the men and women who are executives and trustees or directors of the major environmental or animal protection NGOs needs to answer are: If not us, who? If not now, when? And they should address their answers to themselves, to their children and grand-children, and, if they worship one, to their Creator.

NOTES AND REFERENCES

¹ Brown, Lester R. Building a Sustainable Society. New York: Norton, 1981. p. 3

² Pimentel, David, et al. "Ecology of Increasing Disease: Population growth and environmental degradation." Bioscience Vol. 48. No. 10 October, 1998.

³ Napolitan, Joseph. The Election Game and How to Win It. New York: Doubleday, 1972.

⁴ Report of the World Summit on Sustainable Development. Johannesburg, South Africa, 26 August – 4 September 2002. New York: United Nations, 2002. p. 3

⁵ Livernash, Robert. The Challenge of Sustainability. Washington: Global Environment Facility, 2002. p. 93.

⁶ Russell, Bertrand. Power: The role of man's will to power in the world's economic and political affairs. 1938. New York: Norton, 1969. pp. 14-15.

⁷ Russell, Bertrand. Power: The role of man's will to power in the world's economic and political affairs. 1938. New York: Norton, 1969. p. 271.

⁸ Dowie, Mark. Losing Ground: American Environmentalism at the Close of the Twentieth Century. Cambridge: MIT Press, 1996.

Knudson, Tom. "Environment Inc." Sacramento Bee 22-26 April 2001. 25 October 2004. <<http://www.sacbee.com/static/archive/news/projects/environment/index02.html>>

Montague, Peter. "#744—Part 4: Rebuilding the Movement to Win." Rachel's Environment & Health News. February 13, 2002.

Shaw, Randy. The Activists Handbook. Berkeley: Univ. of California Press, 1996.

Wilson, Jeremy. "Green Lobbies: Pressure Groups and Environmental Policy." Canadian Environmental Policy: Ecosystems, Politics, and Process. Ed. Robert Boardman. Toronto: Oxford UP, 1992.

⁹ “GEO: Global Environment Outlook 3.” United Nations Environment Program 2002. <<http://www.unep.org/GEO/geo3/english/index.htm>>. 513.htm

¹⁰ Helvarg, David. The War Against the Greens: The “Wise Use” Movement, the New Right, and Anti-Environmental Violence. San Francisco: Sierra Club, 1994.

Dowie, Mark. Losing Ground: American Environmentalism at the Close of the Twentieth Century. Cambridge: MIT Press, 1996. pp. 83-104.

¹¹ Daley, Herman E. Beyond Growth: The Economics of Sustainable Development. Boston: Beacon Press, 1996. p. 224.

¹² Report of the World Summit on Sustainable Development. Johannesburg, South Africa, 26 August – 4 September 2002. New York: United Nations, 2002. p. 1-5.

¹³ Kemp, David D. Global Environmental Issues: A Climatological Approach. London: Routledge, 1990. pp. 193-196.

¹⁴ Wilson, Edward O. The Diversity of Life. Cambridge: Harvard UP, 1992.

¹⁵ Machiavelli, Niccolò. The Discourses. 1531. New York: Penguin, 1970. p. 132.

¹⁶ Alperovitz, Gar, et al. Index of Environmental Trends: An Assessment of Twenty-One Key Environmental Indicators in Nine Industrialized Countries over the Past Two Decades. Washington: National Center for Economic Alternatives, 1995. pp. 20-21.

¹⁷ Gélinas, Johanne. Report of the Commissioner of the Environment and Sustainable Development to the House of Commons. Ottawa: Office of the Auditor General of Canada, 2004. <<http://www.oag-bvg.gc.ca>> p. 2.

¹⁸ Dowie, Mark. Losing Ground: American Environmentalism at the Close of the Twentieth Century. Cambridge: MIT Press, 1996. pp. 40-41.

¹⁹ Montague, Peter. “1996 in Review: More Straight Talk.” Rachel’s Environment & Health News #525. December 19, 1996. <http://www.rachel.org/home_eng.htm>

²⁰ David Suzuki Foundation, 2005. <<http://www.davidsuzuki.org/WOL/Challenge/>>

²¹ “Ten things not to buy for Christmas.” World Wildlife Fund. Gland: 21 December 2004. <http://www.panda.org/news_facts/newsroom/other_news/news.cfm?uNewsID=17351&uLangID=1>

²² Issacs, Colin, ed. “Christmas in Panda Land.” The Gallon Environment Letter. Fisherville, Ontario: Vol. 9, No. 24, December 22, 2004.

²³ Ellul, Jacques. Propaganda: The Formation of Men’s Attitudes. New York: Vintage, 1965.

Lippman, Walter. Public Opinion. New York: Free Press (Macmillan), 1965.

²⁴ Vogt, William. Road to Survival. New York: William Sloane, 1948.

- ²⁵ Leopold, Aldo. *A Sand County Almanac*. 1949. New York: Oxford UP, 1966.
- ²⁶ Carson, Rachel. *Silent Spring*. 1962. New York: Fawcett, 1970.
- ²⁷ “World Scientists’ Warning to Humanity.” *Union of Concerned Scientists*. 1992. <<http://www.ucsusa.org/ucs/about/page.cfm?pageID=1009>>
- ²⁸ “World Scientists’ Call for Action (1997).” *Union of Concerned Scientists*. 1997. <http://www.ucsusa.org/ucs/about/page.cfm?pageID=1007>
- ²⁹ Pimentel, David, et al. “Ecology of Increasing Disease: Population growth and environmental degradation.” *Bioscience* Vol. 48. No. 10 October, 1998.
- ³⁰ Livernash, Robert. *The Challenge of Sustainability*. Washington: Global Environment Facility, 2002.
- ³¹ Johannesburg Summit 2002. <<http://www.johannesburgsummit.org/index.html>>
- ³² Loh, Jonathan and Wackernagel, Mathis, ed. *Living Planet Index 2004*. Gland: WWF, 2004.
- ³³ Branfman, Fred. “Living in shimmering disequilibrium.” *Salon.com* (22 April 2000). 25 October 2004 <<http://www.salon.com/people/feature/2000/04/22/eowilson>>
- ³⁴ Best, Stephen, *Oral Presentation to the Standing Senate Committee on Legal and Constitutional Affairs*. Toronto: Environment Voters, 2000 <<http://www.environmentvoters.org/C2ReporttoStandingSenateCommittee.html>>
- ³⁵ “Ontario’s rural heartland in shock.” CBC News, May 2000, updated Oct. 18, 2004. <<http://www.cbc.ca/news/background/walkerton/index.html>>
- ³⁶ Vogt, William. *Road to Survival*. New York: William Sloane, 1948. p. 264.
- ³⁷ Vogt, William. *Road to Survival*. New York: William Sloane, 1948. p. 285.
- ³⁸ Gorz, André. *Ecology as Politics*. New York: Black Rose, 1980. p. 8.
- ³⁹ *Report of the World Summit on Sustainable Development*. Johannesburg, South Africa, 26 August – 4 September 2002. New York: United Nations, 2002. pp. 1-3.
- ⁴⁰ *Report of the World Summit on Sustainable Development*. Johannesburg, South Africa, 26 August – 4 September 2002. New York: United Nations, 2002. p. 1.
- ⁴¹ *Report of the World Summit on Sustainable Development*. Johannesburg, South Africa, 26 August – 4 September 2002. New York: United Nations, 2002. p. 52.
- ⁴² Daley, Herman E. *Beyond Growth: The Economics of Sustainable Development*. Boston: Beacon Press, 1996. p. 31.

⁴³ Lavigne, David. "In My View." BBC Wildlife. September 2002. p. 65

⁴⁴ Helvarg, David. The War Against the Greens: The "Wise Use" Movement, the New Right, and Anti-Environmental Violence. San Francisco: Sierra Club, 1994.

Daley, Herman E. Beyond Growth: The Economics of Sustainable Development. Boston: Beacon Press, 1996.

Milloy, Steven J. JunkScience.com. November 2004.
<<http://www.junkscience.com>>

⁴⁵ Pimentel, David, et al. Will Limits of the Earth's Resources Control Human Numbers? Ithaca: Cornell University, 1999.

⁴⁶ Background: *Gadara* was the ancient city of Palestine southeast of the Sea of Galilee and subsequently destroyed. The name was later adopted by a district east of Jordan and called *Gadarenes*, or *Gergesenes*. It was the site of the famous miracle of the swine, in which Jesus conjured demonic spirits into the body of swine and let them perish in the sea. The story is recounted in the Synoptic Gospels, Luke 8:26-33. <<http://www.philosophicalsociety.com>>

⁴⁷ Helvarg, David. The War Against the Greens: The "Wise Use" Movement, the New Right, and Anti-Environmental Violence. San Francisco: Sierra Club, 1994.

⁴⁸ Russell, Bertrand. Power: The role of man's will to power in the world's economic and political affairs. 1938. New York: Norton, 1969.

⁴⁹ Lavigne, David. Television interview for Environment Voters documentary. Taped March 2000 in Guelph, Ontario.

⁵⁰ Doern, G. Bruce. The Peripheral Nature of Scientific and Technological Controversy in Federal Policy Formation. Ottawa: Science Council of Canada, 1981.

⁵¹ Ellis, Richard J. and Thompson, Fred. The Culture Wars by Other Means: Environmental Attitudes and Cultural Biases in the Pacific Northwest. Vancouver: SFU-UBC Centre for the Study of Government and Business, 2000.

⁵² Alinsky, Saul D. Rules for Radicals. 1971 New York: Vintage, 1989. p. 52.

⁵³ Havel, Václav. The Art of the Impossible. New York: Knopf., 1997.

⁵⁴ Mowat, Farley. Sea of Slaughter. Toronto: McClelland and Stewart, 1984. pp. 388-401.

⁵⁵ Stanbury, W. T. Environmental Groups and the International Conflict Over the Forests of British Columbia, 1990 to 2000. Vancouver: SFU-UBC Centre for the Study of Government and Business, 2000.

⁵⁶ Dowie, Mark. Losing Ground: American Environmentalism at the Close of the Twentieth Century. Cambridge: MIT Press, 1996. pp. 33-34.

⁵⁷ Cockburn, Andrew. "Big Green Faces Time of Reckoning." Los Angeles Times 23 March 1995.

- ⁵⁸ Shaw, Randy. The Activists Handbook. Berkeley: Univ. of California Press, 1996. pp. 60-61.
- ⁵⁹ Dowie, Mark. Losing Ground: American Environmentalism at the Close of the Twentieth Century. Cambridge: MIT Press, 1996. p. ix.
- ⁶⁰ Grefe, Edward A. Fighting to Win: Business Political Power. New York: Harcourt Brace Jovanovich, 1981.
- ⁶¹ Daley, Herman E. Beyond Growth: The Economics of Sustainable Development. Boston: Beacon Press, 1996.
- ⁶² Alperovitz, Gar, et al. Index of Environmental Trends: An Assessment of Twenty-One Key Environmental Indicators in Nine Industrialized Countries over the Past Two Decades. Washington: National Center for Economic Alternatives, 1995.
- ⁶³ Black, Conrad. Franklin Delano Roosevelt: Champion of Freedom. New York: Public Affairs, 2003.
- ⁶⁴ Shah, Anup. "Multilateral Agreement on Investment." Global Issues. December 20, 2000 <<http://www.globalissues.org/TradeRelated/MAI.asp>>
- ⁶⁵ Machiavelli, Niccolò. The Discourses. 1531. New York: Penguin, 1970. p. 132.
- ⁶⁶ Handy, Charles B. Understanding Organizations. New York: Penguin, 1976. p. 107.
- ⁶⁷ Alinsky, Saul D. Rules for Radicals. 1971 New York: Vintage, 1989. p. 63.
- ⁶⁸ Brown, Lester R. Building a Sustainable Society. New York: Norton, 1981. p. 311.
- ⁶⁹ Ellis, Richard J. and Thompson, Fred. The Culture Wars by Other Means: Environmental Attitudes and Cultural Biases in the Pacific Northwest. Vancouver: SFU-UBC Centre for the Study of Government and Business, 2000. pp. 33-41.
- ⁷⁰ Dowie, Mark. Losing Ground: American Environmentalism at the Close of the Twentieth Century. Cambridge: MIT Press, 1996. p. 41.
- ⁷¹ GuideStar: The National Database of Nonprofit Organizations <<http://www.guidestar.org/index.jsp>>
- ⁷² Charity Commission for England and Wales <<http://www.charity-commission.gov.uk/>>
- ⁷³ Wilson, James Q. Political Organizations. Princeton: Princeton UP, 1995. p. 9.
- ⁷⁴ GuideStar: The National Database of Nonprofit Organizations <<http://www.guidestar.org/index.jsp>>
- ⁷⁵ Dowie, Mark. Losing Ground: American Environmentalism at the Close of the Twentieth Century. Cambridge: MIT Press, 1996. p. 256.

⁷⁶ Webb, Kernaghan. Cinderella's Slippers? The Role of Charitable Tax Status in Financing Canadian Interest Groups. Vancouver: SFU-UBC Centre for the Study of Government and Business, 2000.

⁷⁷ Dowie, Mark. Losing Ground: American Environmentalism at the Close of the Twentieth Century. Cambridge: MIT Press, 1996. pp. 40-41.

⁷⁸ Giving USA 2004. Giving USA Foundation—AAFRC Trust for Philanthropy.

⁷⁹ Knudson, Tom. "Environment Inc." Sacramento Bee 22-26 April 2001. 25 October 2004. <<http://www.sacbee.com/static/archive/news/projects/environment/index02.html>>

⁸⁰ GuideStar: The National Database of Nonprofit Organizations
<<http://www.guidestar.org/index.jsp>>

⁸¹ Loh, Jonathan and Wackernagel, Mathis, ed. Living Planet Index 2004. Gland: WWF, 2004. p. 2.

⁸² Caldwell, Lynton. Quoted in "Globalizing Environmentalism: Thresholds of a New Phase in International Relations," Society and Natural Resources, 4, p. 259.
<<http://www.antiwar.com/stromberg/s090500.html>>

⁸³ Brown, Lester R. Building a Sustainable Society. New York: Norton, 1981. p. 372.