The Development of Sustainable Environmental Responsibility **2017 GE 522**

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Course Objectives

Sustainable environmental responsibility consists of fully observing the duty of preserving the ecosystem in which we exist, protecting public health, and maintaining the essential features of stable social organization, (equity and sufficient prosperity for widespread wellbeing). It requires more than adopting a limited set of practices. Rather, it involves developing a comprehensive set of efficient solutions that are sufficiently adopted to eliminate problems that diminish the health of living things. It requires actions that do not generate ancillary frictions, investments that do not prevent further innovation or needed development, and which because of positive reception have a high likelihood of being voluntarily continued and bring about long-term benefits.

Developing solutions through collaborative efforts creates a higher likelihood of wide acceptance, and using preventive strategies presents the best route to efficient and permanent solutions. This class will introduce students to methods for identifying and evaluating preventive strategies, and for enlisting cooperation and willing compliance. Students will study examples dealing with industrial pollution and the use of resources, considering the perspectives of pollution sources and resource users, as well as affected entities (including the voiceless - wildlife and future generations); while adopting the perspective of problem solvers such as government, social entrepreneurs, concerned citizens, or other first movers. Each student will work on problems individually and with others, to research and craft proposals for solving actual environmental and public health problems and capturing opportunities to enhance the sustainability of our modern world. Classroom exercises will focus on the process and ethics of shared effort as well as subject content.

A central idea of this class is that an interdisciplinary, team approach is necessary for an adequate grasp on the wide range of issues that environmental sustainability encompasses. Developing and sharing their own perspectives, students will teach each other about the history of environmental problems and relevant thinking, and together seek understanding of how environmental problems may be solved.

The context of our discussions is a world that is now shared space, and recognition of the need for new ways of co-existing. Our aim is to find the root causes of our problems, to move beyond addressing symptoms to possible cures that involve systemic changes.

Our transportation, construction, manufacturing, and use of resources compose systems of activity and resource use that must be reexamined and can be re-imagined. Our sense of what we owe to each other can also become more realistic in the light of current conditions. Our knowledge of the status of our

living system elements must be rapidly improved. Our capacity to correctly decide issues pertaining to air and water and land and the continued existence of fellow creatures must immediately become better. Our propensities to go to war, to destroy land and life, and to disseminate toxic and hazardous substances must be controlled. Our own growth and consumption must be stemmed. These tasks will be the subject matter for the team. Because they are so vast, the skills of cooperation and team-building are urgently needed.

Beginning by examining the history of the recognition of deleterious impacts, moving to an understanding of current conditions and the fundamental causes of our systemic dysfunctions, the team will practice elements of world redesign, considering how modern societies can be reconstructed so that they can optimally function. An environmental overview class can expand into many connected topics. Each category is a gateway to other areas of investigation. The environmental subject is infinitely extendable into every avenue of life. To solve our problems we need an understanding of democracy and law, psychology, sociology, political science, journalism, communications, environmental science, industrial engineering, product design, transportation planning, community relations, ecology, earth sciences, economics, life-cycle assessment, ethics, history, culture. The environmental field is unlimited. We will not solve environmental problems with one discipline but by applying many. More generalists are needed who can assimilate information from various relevant disciplines and broaden our understanding of what we can and should do. The class will aim to increase comfort with the cross-disciplinary and multi-perspective engagement that is necessary to craft and implement truly holistic and effective solutions.

Expectations

Classes will consist of instructor lecture combined with reports by students on individual and group work-product, and exercises in group deliberation and decision-making.

Environmental matters are held in common in two important ways: we are all affected by them, and each of us can help mitigate them. Because of these commonalities, consensus is possible; and because consensus is achievable, it is important to practice the collaborative consciousness that can produce it.

Your individual opinion. Working together as a team does not require unanimity of opinion. The teacher will not withhold his own opinions, setting an example for students that they should not do so, either, if the opinion is appropriate to the context of jointly understanding the problems we face and addressing them. However, all participants are expected to agree that our discussions must seek to preserve the distinction between opinion and objective fact, that expression of opinion must be respectful, and that while disagreement can be distinct and passionate, it should not be combative. Discussion in this class is not a competition, but a cooperative effort. The effort to understand all views, and truth, is crucial to the kind of group decision-making that broadens human capacity instead of narrowing it. Therefore students are encouraged to learn how to constructively differ with each other and the instructor. The instructor will invite the class to observe and comment on group dynamics in order to improve them.

The centrality of discussion. Read the assigned readings and come to class ready to participate in a discussion about them. There is no exam for this class and there are no quizzes. Instead there is discussion, and assignments that you will share with the class. You will be evaluated not just according

to how well you learn, but also by the effort you put into teaching others. Clarity in communication and quality of thought are skills we will sharpen. The text has many references to further information. Efforts to read beyond the assignment and contribute further information to deepen or illuminate our understanding will be appreciated. *For each item of information you bring to class, explain where it comes from. Note any information that might help the group to think critically about the source or the information itself.*

Finding your way. In an expanded context, how do you form a manageable response? Recognizing personal interest can provide an anchor and stable location in the overwhelming set of topics and ocean of information that world redesign encompasses. Establishing connections with others and diverse perspectives, through cooperative processes and the recognition of shared goals, spreads stability and increases manageability. Students are encouraged to find out what they care about most in the realm of environmental issues. Selecting priorities on an individual basis, and as groups, balances the effect of the task's explosive aspect, providing a way of organizing the vast amount of information and determining next steps. Sharing individual perspectives in a dysfunctional interaction can be divisive, but as part of a team recognizing common aspirations it can reinforce and support constructive effort. The goal of the class is not just to generate useful proposals for solving actual problems having to do with the world's current unsustainable condition, but to prepare students to promote collaborative work in whatever context they find themselves. In his recent book, *On Trails*, Robert Moor writes that pathways "reduce an overwhelming array of options to a single expeditious route. Without trails, we would be lost." This course provides one trail through a vast territory, and students should recognize their opportunities to find, map, or develop others to the parts they wish to explore.

Readings

Students must order *Developing Sustainable Environmental Responsibility* from Trunity Publishing ($39.95 – instructions on ordering will be provided to students signed up for the course).

Once you decide to take this class, find and read a book on environmental history. You will tell the class about it. Suggested supplemental readings for the course are noted below, which include many works that can be classified as historical, but it is your choice. Selecting something not on the list is just as good as selecting something on the list, if it helps the class to learn about the extant literature. This is a young field. Take a broad view of what should be considered a work of environmental history. It does not have to be an overview of the entire topic, but can focus on a period, theme, or important event.

As you read the assignments, note your opinions, questions, important information and insights that the reading prompts or provides. Focus on what strikes and interests you. Pursue interests that are sparked by the selected reading. For example, if you read about flame retardants found in polar bears, and you wonder if there are flame retardants in you, try to become knowledgeable about their use in products, your right to know about ingredients, and safer alternatives.

Grading

Students will be marked on their writing, and their in-class contribution, according to how constructive and creative it is, how clearly they think and articulate their thoughts, and how well they teach as well as

learn. Understanding sources and what makes a good source of information, the energy put into research, and the depth and quality of understanding, will all be important. The syllabus tells you whether you will submit your work during class, or "before class", which includes handing it in as you arrive. There are about a dozen exercises, in which class participation and constructive team work is highly valued. This is worth half of the grade for the class. One major writing assignment, the final paper, is worth 20 points, and three minor writing assignments are worth ten points each. Clarity, comprehension, quality of thinking and communication as well as of research will be valued.

Attendance

You are allowed 2 (two) absences from class. I appreciate an email concerning absences. Any additional absence must be excused and if not, may result in a final grade reduction of one-half of a letter grade.

Incomplete Grades:

"I" grades can only be given when specific work has not been completed AND when the student and instructor have conferred and the instructor has assigned a date within the next 12 months for the work to be completed. This becomes a permanent F (undergraduates) or a permanent I (graduates) if the work is not completed with 12 months from when the F was given.

Academic Honesty

Plagiarism, cheating on exams, submitting the same work for more than one course, deliberately impeding the academic performance of others, and other forms of academic misconduct are serious offenses. I take them very seriously and I expect my students to do likewise. I follow the definitions, procedures, sanctions, etc. as set forth in the CAS Academic Conduct Codes (http://www.cs.bu.edu/ugradprogram/conduct.html) and http://www.bu.edu/cas/students/graduate/grs-forms-policies-procedures/academic-discipline-procedures/. I urge each student to be familiar with these expectations.

Schedule of Classes and Assignments

All chapter references are to the text *Developing Sustainable Environmental Responsibility*. If you are late with any assignment, I will allow you to make up the work, but it is best to discuss this with me first, in case I think some alteration in the assignment is needed. All exercise submissions are to be as brief as possible while doing justice to the effort. You will have to use your best judgment to accomplish this, but no more than two pages is a good rule of thumb. When you submit "before class", retain a copy so that you can discuss your work in class.

Week 1	**Framing Our Situation and Our Work.** In order to find our way, together, through the ocean of relevant information and ideas, we need to understand how best to work and think together. These first readings set the stage for our joint efforts. You should try to do the first exercise before coming to class. Take a look at the other exercises and think about what it would be like to do them, imagining yourself as the instructor. We will select one more to do in class, and it may be modified by suggestions students make that seem useful to try.	*Read Chapters 1 and 2 and do the first exercise "Thinking About Responsibility", submitted during class.*
Week 2	**Pragmatic Hope.** Facing environmental issues can be daunting, as the recognition of their immensity can provoke an overwhelming emotional response (or the desire to block recognition). One feature of an improved societal response would be wider recognition of the successes that have occurred and the advances that are possible. Report on the results of the exercise you chose to do before class, and take a look at the P2 Game. We will do it with a subject selected by the instructor.	*Read Chapter 3 and do one of the exercises before class, (excepting the P2 Game), to submit before class.*
Week 3	**The Solution Space and Climate Change.** Considering first the availability of technical options for an energy transition, the reasons to implement them, and current relevant politics, law and economics, the class will discuss the reasons why we fail to act and how we may generate the political will to do what's necessary. When we form teams to select an issue to work on, however, do not feel that energy is the only topic to work on. Before class, think about other problems you wish to solve. The flexibility to move from one issue to another, and not to be bounded by the momentum of discussion, reinforces the idea of a larger context – of group problem-solving - embracing and holding all the issues together.	*Read Chapter 4. We will do the exercises in class. Come to class thinking about an issue you want to learn more about, and why others on your team should choose that topic. (In class): commit to a research task that will assist the group in developing a useful proposal to address the selected problem.*

Week 4	**The Quality of Environmental Consciousness.** In order to put into effect the idea that it is in our collective interest to get better at solving problems together, we will try here to delve deeper into how we think about these issues and about working together. Choose one of the exercises - rewriting a myth or proposing a new method of energy capture – as illustrated in the book; or perform a similar task, such as proposing investigation of a new (cleaner) means of transportation, or of providing any essential of life. Alternatively, propose to the class some method of convincing people to devote more constructive energy to this effort, or changing hearts and minds to bring about more sustainable civilization; or produce some form of art that has this purpose. The form of reason, expression, communication or reporting is up to you.	*Do the research you committed to and reconvene in teams to continue the exercise begun Week 3.* *Read Chapter 5 and do either exercise or one of the alternatives described here, to submit before class.* *Find and start reading a book of environmental history.*
Week 5	**The History of Environmentalism.** Ancient recognition of environmental issues, rise of the conservation and preservation movements. The public health movements and the beginning of the modern era. Students will pair off and explain to each other the "essential lessons" of the books they read. The recipient of the explanation will then report to the class. The reader of the book will fill in gaps if necessary.	*Read Chapter 6. Submit before class one of the exercises in the chapter (there are two exercise sections).* *Submit before class your book report, no more than two pages.*
Week 6	**The History of Environmentalism Continued.** This section will cover the most recent decades in greater detail. We will construct an "Essential Timeline" of events that everyone should know about, pretending that we have been asked to produce this for high-school classrooms. Be prepared to tell the class why you think your items should be added. Consider how the class should decide what is included, as we will agree on a method. Although you will submit your list before class, you can modify your proposal during class, and you should share your reasons why.	*Review environmental history timelines noted in the book – or other that you find - and propose five to ten events that belong to an "Essential Timeline". Submit your list before class.*
Week 7	**Nature.** Ideas of human-nature relationship: exploitation, protection from, protection of, romantic, inspirational, sacred, kinship, providence. Current state of health of natural systems and prospects. Ideas of property. Come to class ready to explain the main points of the nature writing or ecological science you have found.	*Read Chapter 7. Find and read an example of nature writing, or ecological science. Submit (before class) a two-page justification for protecting nature for its own sake.*

Week 8	**The Relationship with Nature continued: Industrialization.** History, impacts, trends, drivers, the relationship of production to need, corporate responsibility and accountability, alternative forms of enterprise, relevant law. How can we have the benefits of modern technology without degrading natural resources or beauty? What changes in how we produce goods and services might bring about the necessary changes in the deleterious trends we see? Concerning the example of a more responsible company, be ready to say why you think it deserves this recognition.	*Do one of the exercises at the end of Chapter 7, (submit before class). Bring to class an example of a relatively environmental responsible company (this assignment is not handed in).*
Week 9	**Economics in a Biosphere.** We will attempt to envision a more humane and planet-sensible system of economics. We will discuss the difference between ecological economics, environmental economics, and conventional economics; the difference between growth and development; existence and exchange value; the proper role of cost-benefit analysis; the conundrum of assessing the present value of future goods. We will consider the use of other organizations than those that maximize profit for the production of necessities: cooperatives, nonprofits, government agencies, public-private initiatives, public-benefit corporations. Students will tell the class about the reading they selected.	*Submit before class a short statement (3 pages max) of how we can evolve a more humane economic system. Select a reading from the list below entitled "Readings for Economics in a Biosphere", or comparable material, and come to class prepared to tell others about it.*
Week 10	**Bad Energy and Militarization.** Issues pertaining to coal, oil, gas, and nuclear fuels and the impacts of military operations. The interconnection of military and energy policy. Alternatives to militarized foreign policy. This will primarily be a lecture class but contributions to the discussion are welcome.	*Students will tell the class what they are thinking of presenting at the end of the semester. See assignment for Weeks 13-14.*
Week 11	**Using the Tools of Governance.** This section will review our system of environmental protection by examining the strategies used by various laws, such as limits, permitting, incentives, assistance, education, and market forces. Many tools for fostering sustainability are available and may be combined, and improving the art of governance is a task we should be mastering together. The session will include students listing questions relevant to the task of improving environmental governance.	*Read Chapter 8. Submit before class one of the exercises (except "Goals"). Consider what you want to know, in order to know how to improve environmental governance.*

Week 12	**Envisioning Progress.** In this final lecture/discussion class we recap what we have considered, seeking understanding about how we may usefully focus our efforts. Imagining how a system of truly effective anti-pollution laws would work is one suggested area, but energy, population, human rights, water quality, protecting species, indigenous cultures, food, public health, are also examples of important areas. Students may use any perspective or mode they wish, such as legal, philosophical, poetic, religious, political, cultural, artistic, or economic. The question before us will be how we improve our response to environmental responsibility. Class discussion: Describe the moment in your own life that made you care about this issue, or some subset of it.	*Read Chapter 9. Submit before class completion of any exercise in that chapter or: Bring to class an excerpt of a work that provides illumination and a quote deserving of being made into a poster and widely seen.*
Week 13 -14	**Student Presentations: Solving Environmental Problems.** Pretend, if it helps, that the class is an organization that has been funded to solve environmental problems, and you are making a proposal for how the organization should devote its resources. Or, pretend that you are a legislator proposing a new law or a change in law. Or, pretend that you have a platform for educating ordinary people, or that you have a meeting with a powerful charitable foundation or agency head. Imagine any situation you wish, either explicitly or implicitly, that helps you construct a presentation that will motivate people to act by convincing them there is something that needs doing and can be done, relevant to the development of sustainable environmental responsibility. The paper need not describe an imaginary context for the proposal.	*Submit and present a 5-10 page paper describing an environmental problem and proposing potential solutions.*

About the Instructor

Rick Reibstein created and provided courses on environmental law and pollution prevention for Northeastern University's Continuing Education program throughout the 1990's. Since 2000 he has been teaching environmental law and policy at Boston University. He has also provided courses at Clark, Suffolk, and MIT. Reibstein served for more than two decades as a manager of the Massachusetts Office of Technical Assistance and Technology, one of the nation's first pollution prevention programs, which he helped design and establish. In this position he has provided training for companies throughout the state on environmental compliance and toxics use reduction. Reibstein has also served as an enforcement attorney for both the U.S. Environmental Protection Agency and the MA Department of

Environmental Protection. He has provided training and consultation on pollution prevention to EPA, other states, and to environmental agencies in Brazil, Chile, Canada, the Baltics and the Philippines. He is the founder of the Regulated Community Compliance Project, which has provided training to real estate professionals throughout New England on environmental matters.

Readings for Economics in a Biosphere

Industrialization has occurred in capitalist and communist contexts, under free democracies and dictatorships. This class focuses on industrialization in a free society. The profit-seeking organization (corporations, partnerships, etc.) has shaped how we use resources and distribute wealth, in some ways transcending national forms of government. Free enterprise is a freedom like others, but as in all rational systems, it must be balanced when competing with other values. It is also necessary to consider whether laissez-faire policies contribute to the widespread sharing of the opportunity to engage in free enterprise, or if they allow the domination of markets so as to restrict it for all but a few. If uninhibited profit-seeking without limit is not compatible with a world that doesn't exceed ecological limits, how can we shape the growth of business organizations so that we will be able to expect from them the level of responsibility required by the environmental problems we face, while preserving the maximum amount of freedom?

Are there other organizational forms, such as cooperatives, nonprofits, governmental agencies, academia, and voluntary groups that society could foster through law, that would provide the capacity for joint constructive action that gives us what we now expect from corporations, but also preserve and enhance our common environment?

Read one of the following:

Any article about the impact on indigenous cultures of the exploitation of oil resources, such as "With Spears From All Sides", Joe Kane, in *The New Yorker*, 9/27/93, or other articles about the case involving Chevron and Texaco in Ecuador, Shell in Nigeria, mining in the less-developed world, or agro-industry in Africa, the Amazon, Southeast Asia, etc. It is not just wild lands that are being lost, but the cultures the modern world doesn't know.

EcoEfficiency, the World Business Council on Sustainable Development, 1997. A landmark organization in the history of the idea of corporate responsibility. Or, update this thread with information about current corporate responsibility efforts, environmentally preferable purchasing, climate-responsible investment, green claims, corporate disclosure requirements, or product certification standards.

Beyond Growth, Herman Daly, 1996. Or, other products relevant to the idea of the steady-state economy, or the idea of economic systems that develop human potential rather than monetary growth.

Priceless, Frank Ackerman and Lisa Heinzerling, 2004. On the value of life in an economic reckoning.

The Economic Dynamics of Environmental Law, David Driesen, 2003. How we think we can't govern to

bring about the change we need when we assess conditions as if they won't change.

"Accounting for Environmental Assets", Robert Repetto in *Scientific American*, 1992. Understanding what prosperity really is. Updating this thread is helpful, with newer information about replacing GDP.

UN Sustainable Development Goals or comparable material.

Or, read other relevant materials that contribute to our understanding of how we must and can solve environmental problems through changes in economic interrelationships.

Suggested Supplemental Reading

The following is not required reading but it is suggested that students read this list in order to be aware of some avenues for further related learning. This list is in no way complete or even comprehensive, but are just suggested ways to enter and begin exploring important topic categories.

The History of Environmental Awareness

The idea that humans need to pay attention to the environment as a whole, and not just their own individual or group concerns, is rapidly evolving. The history of environmentalism and sustainability is only now being experienced, much less written, thus there is still time to participate in the elaboration of just what the first great flowering of world environmentalism is producing. We are still in primitive stages, together, of the establishment of expectations, institutions, and other manifestations of our acceptance of responsibility for caretaking of our own surroundings. But we may draw upon ideas from the entire history of moral consciousness to help us. There are many ways to trace the development of environmental awareness. Some fit into a general "canon" of accepted landmarks which is now being developed as various works echo the choices of the first experts in this field. The student of environmental affairs should be generally familiar with many thinkers, issues, events. (Examples: John Muir, Henry David Thoreau, the birth of forestry, sanitation, the Public Health movement, killer smog, oil spills, extinctions, the precedents to the great environmental statutes, the establishment of federal agencies, the backlash, the current stasis, Francis Parkman on the frontier, George Perkins Marsh on man's effect on the environment, George Bird Grinnell (who started Audubon Society and other groups to protect the wild), Ernest Haeckel's coining of the word "ecology", Rousseau's ideas about natural virtue, Wordsworth's romantic sense of nature, the Brook Farm experiment by transcendentalists to live together lightly on the land, the Hudson River School's exalted perspectives of nature, George Catlin's proposal for a national park for the buffalo and the native cultures he depicted living with them, De Toqueville's observation that Americans are "insensible to the wonders of inanimate nature and they may be said not to perceive the mighty forests that surround them till they fall beneath the hatchet.") The selection of readings cannot be extensive enough. The goal of the class is to foster or further a life-long effort to know the work of the major figures, organizations, events and issues. Examples of works of environmental history:

Smokestacks and Progressives, David Stradling
Deceit and Denial, Markowitz and Rosner
Justice Downwind, Howard Ball

A Civil Action, Jonathan Harr
A Fierce Green Fire, Philip Shabecoff
The Shaping of Environmentalism in America, Victor Scheffer
When Smoke Ran Like Water, Debra Davis
The Green Revolution, Kirkpatrick Sale
Living Downstream, Sandra Steingraber
Poison Spring, E.G. Vallianatos
The Snail Darter and the Dam, Zygmunt Plater
Cadillac Desert, Marc Reisner
Ecological Economics, Juan Martinez-Alier
Freedom to Harm, Thomas O. McGarity

Students should ask themselves, what are the "essential lessons" of the book.

They should identify excerpts that are of special significance. For example:

In *Rediscovering America: John Muir in His Time and Ours,* Frederick Turner, 1985, pp. 317 – 331, describes when John Muir and Theodore Roosevelt camped together and the spirit that created our national parks was strengthened.

The Highway and the City, Lewis Mumford, 1953, pp. 234 – 246, on the design of our living spaces for humans instead of cars.

For the Health of the Land, Aldo Leopold, (essays written around 1945, that the great ecologist didn't publish during his lifetime), pp. 193 – 207, on living with wildlife.

The Closing Circle, Barry Commoner, 1971, "Nuclear Fire", on fallout from atomic testing, a crucial stimulation of public recognition of the environmental impacts of human activities.

Toxics

Toxics are here used not only as a primary example of a priority environmental matter, but also as a model for how other issues may be regarded. Dealing with toxics involves developing a rational approach to a topic fraught with anger, disgust, fear, righteousness, uncertainty, denial, and strong political and economic forces in contest. But the matter of being poisoned is not just something that calls for prevention, it is also one in which prevention has been shown to be possible, indeed surprisingly beneficial, and thus holds lessons for how we deal with all threats.

Laying Waste, Michael Brown, 1979 - the story of Love Canal, the Stringfellow Acid Pits, and other horror stories.

Malignant Neglect, Robert Boyle, 1979, on PCBs.

The Bhopal Tragedy, Morehouse and Subramanian, 1986, on the court battle.

Nature

For some, nature refers to resources to be used, while for others it is something with inherent value to be preserved. This divide is relevant to land management, public health, and the survival of species. It influences how or whether we protect common property such as water, air, soil, or wildlife. Assumptions about ownership and coexistence are often implicit and unexamined. At the root of much dysfunction is that we live in human-made systems instead of natural systems. It is too easy to be ignorant of absent birdsong, lost plants, missing beauty. An active effort is necessary to recover concepts and experiences that were once a part of being closer to nature.

The Green Fuse, John Harte, 1993, salamanders and acid rain, rain forests and the world.

Rights to Nature, Hanna et al., 1996, on common property.

The Institutes of Justinian, commons once commonly recognized.

Bad Energy and Militarization

The growth of energy production and use is connected in many ways to the growth in militarization. Developing an informed and analytic perspective on both phenomena is necessary to an understanding of how we got to be where we are and what we have to grapple with in order to make the necessary fundamental changes.

Multiple Exposures, Catherine Caulfield, *Under the Cloud*, Richard Miller, *Dragon's Tail*, Barton Hacker, *NukeSpeak*, Hilgartner et al., *We Almost Lost Detroit*, John Fuller, *Living Without Landfills,* Marvin Resnikoff, *The Nuclear Almanac*, Faculty Members at MIT. There was an explosion of attention to nuclear issues and radiation exposure in the 1970's and 1980's, before the internet – so it is not as well known – but is still completely relevant. *Barefoot Gen*, Keiji Nakazawa, 2005 is a graphic novel that should be widely read. If you can find it, watch Kurosawa's *I Live in Fear.*

Oil Power, Carl Solberg, 1976, *The Control of Oil*, John Blair, *The Prize*, Daniel Yergin, *Blood and Oil*, Michael Klare, Blood Oil, Leif Wenar.

Good Energy

Soft Energy Paths, Amory Lovins, 1977, a landmark presentation of societal choice still before us.

Plan B, Lester Brown, 2003, advice on the best course of action from a long-time foremost communicator of sustainable concepts.

"Using the Tools of Pollution Prevention to Reduce Greenhouse Gas Emissions", Reibstein, in *Environmental Law Reporter*, 9/2009, at http://www.bu.edu/earth/files/2012/08/Tools-of-P2-for-GHG.pdf. How a fully-equipped approach to governance can help us foster the change we need.

How We Think and Act

When Smoke Ran Like Water, Davis, 2002, quoting Albert Einstein, "The right to search for truth implies also a duty".

The Waste Makers, Vance Packard, (1960). He fought planned obsolence. He also wrote *The Status Seekers* and *The Hidden Persuaders*.

"Psychology in an Age of Ecological Crisis: from Personal Angst to Collective Action", in *American Psychologist,* 8/09, Stokols, Misra, Runnerstrom and Hipp. "Analyses of psychological phenomena are essential to understanding the ways in which individuals perceive, experience, and respond to global threats in the context of their local communities and behavior settings. There is growing evidence, for example, that individuals' worries about environmental health threats take a toll on their subjective well-being".

Thinking in Systems, Meadows, 2008. Last book by the lead author of the *Limits to Growth* (1972), which hugely contributed to environmental awareness.