Executive Workshop

Toward a Livable World:
Delivering on the Promise of Sustainability

Briefing Book

June 1-3, 2010
Austin Texas
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About This Briefing Book

Trying to know the future is a peculiar human trait. We often spend a good deal of time thinking about what the world will be like after we are gone, but with certainty there is precious little we can say about what is to come. Conversations about sustainability always involve looking forward. Based upon our best understanding of the present, we make mental projections about what the future might bring. Will there be enough food? Will residents of cities yet to be built have safe water to drink? To ponder these questions makes their ethical implications apparent. Does my behavior in the present impact the lives of future men, women, and children? Curiously, to not think about these questions, does not lessen their ethical importance. It is often the case that we hurt others when their needs are not apparent to us. In fact, it is probably true that to not think about sustainability is to nearly insure that we will damage the hopes and daily lives of those who come after us.

You have been asked to participate in an executive workshop to bring your particular expertise to bear upon how the prospects for a sustainable future can be improved. You will soon learn that workshop participants come from many different backgrounds and ideological perspectives. Often in conversations about sustainability, as in daily life, we find ourselves “preaching to the choir.” That is, we often only talk to those who agree with us (which in effect is no better than talking to ourselves). Faced with significant environmental challenges, we must do better. If sustainability will ever be more than a popular slogan, or an abstract idea, we must venture out to meet each other and to engage in sometimes uncomfortable dialogue.

The SFA faculty who have prepared this briefing book include sociologists, geographers, historians, and creative writers. Our goal was twofold. First, we have aimed to provide you with information from our respective disciplines that will help encourage your conversations at the workshop. Second, we hope to introduce you to the humanistic side of the sustainability debate. Each of us, in one way or other, deals with human beings and their experience of the environment. For sure, technology and the natural sciences have much to say about how the future will be shaped. It is our assertion, however, that sustainability conversations must also be attuned to real-world human cares, beliefs, and concerns.

We wish you luck in your deliberations. Thank you for participating in the workshop. Your recommendations will be a good first step in helping to make the sustainability debate more relevant and more human centered.

Event Format

Thank you for participating in the workshop. We hope to make a concrete difference in moving the discussion about sustainability to a consensus direction that considers all viewpoints. The workshop is designed to produce a set of recommendations on four topics:

- Sustainable Communities: Social Involvement and Personal/Corporate Responsibility
- Sustainable Economics: Production, Supply, and Consumption
- Sustainable Resources: The Human Context
- Interim Solutions: Towards a Livable World

Please note that each topic is further subdivided into more specific issues. These issues are intended merely to prod thinking. They are not designed to steer discussion in any way. The material in this briefing book will supply background information to deepen your familiarity with the topics.

The 20 participants will be divided into four working groups. These groups will be constituted in a way that balances diverse interests in order to promote a well-rounded examination of topics. Each group will have an opportunity to discuss each topic. Specifically, groups will have one and a half hours (1 ½ hours) per topic on a rotating basis. As Group One addresses Topic One, Group Two addresses Topic Two, etc. After discussion time expires, topics will rotate in sequence throughout the day.

The goal of each session is for the group to reach a set of consensus recommendations on how the topic under discussion should best be handled in the future. The recommendations should be targeted at whoever would be responsible for implementation: governmental authorities, corporate leaders, volunteer organizations, etc. Where possible, policy recommendations should take into consideration their impact on the local level.

Faculty members from the College of Liberal & Applied Arts will serve as moderators for each topic and their role will be to guide discussion, not contribute to it. Please note that comments of participants will be held in strict confidence. We ask that no one reveal what was said at the workshop. We wish to promote an environment where issues can be discussed in complete honesty without fear of disclosure. Additionally, we ask group members not to mention their discussion during breaks to participants from other groups. We do not want discussions influenced or prejudiced. Each group should approach a topic without any pre-formed opinions.

Once the day-long discussions are concluded, the moderators will prepare a set of preliminary conclusions that will be revealed at the evening’s dinner. On the following half-day, all participants will convene in a plenary session to reach final agreement on the recommendations.
# Executive Workshop Agenda

## June 1, 2010

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<th>Time</th>
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<td>3:00-5:30</td>
<td>Check-In at Hotel</td>
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<td>(512) 457-8800</td>
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<td>6:30-8:30</td>
<td>Reception: Hors D’oeuvres (casual attire)</td>
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<td>Welcome and Overview</td>
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<td>9:00-9:30</td>
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<td>Group 4: Room E1.024</td>
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<td>11:00-11:15</td>
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<td>6:30-9:00</td>
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<td>Discussion: Preliminary Recommendations</td>
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## June 3, 2010

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<td>12:15-1:00</td>
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Workshop Topics

A. Sustainable Resources: The Human Context
Ray Darville, Louise Stoehr, Daryl Farmer

Focus Questions
1. According to the United Nations, sustainable human development aims to eliminate poverty, promote human dignity and rights, and provide equitable opportunities for all through good governance.
   a. How can the goal of expanding personal choices co-exist with natural systems?
   b. How can the parameters imposed by moving toward sustainability accommodate the priority of maintaining a humane social existence?

2. What are the community benefits provided by private landowners who adopt sustainable land use, construction, and materials practices? What is needed to balance and/or provide harmony between public/private ownership?

3. What are the organizational, management, and financial barriers to implementing sustainable community practices? Is there a return-on-investment?

4. On a global level, what roles should private enterprise and government play in securing food sources and protecting populations from subhuman conditions?
   a. What responsibilities do governments have in removing barriers to private sector entities’ practice of sustainability?
   b. How do communities balance subsistence and sustainability?

Introduction
Human beings are at the heart of sustainability. Thus, all discussions and decisions regarding sustainability should consider humanity’s role in the interconnected web of natural processes. To achieve and maintain local and global sustainable practices, it is our responsibility to engage in appropriate actions to benefit individuals, communities, countries, and the environment. We have the means to create sustainable solutions to the problems of poverty and hunger at the local level, which would provide models for sustainable development in the larger community. Moreover, humans are creative and adaptable beings. Our creativity drives us to find novel solutions as we adapt to an ever-changing environment. Furthermore, our adaptability is an asset as we develop new paradigms for living in harmony with each other and the world around us. A variety of sustainable solutions are within our grasp. It is up to us to decide which solutions we wish to implement.

Contributing factors for defining a sustainable society include stabilized population, ability to provide for each individual, and equilibrium between quality of life for humans and protection of the environment. The structure of society—involving population, capital, and technology—should harmonize in order to maintain quality of life and therefore a sustainable society. A functioning, sufficient society is one that does not promote or reject development and progress. Alternatively, focus on qualitative measures to determine beneficial methods of development is characteristic of a sustainable society.

What constitutes a sustainable society?
A sustainable society is one in which poverty is minimized, individual material and security needs are met, constructive creativity applied to sustainable solutions is encouraged, and there are opportunities for growth in technology and culture. Sustainability does not mean lack of growth; rather, a sustainable society is one that balances growth against future availability of resources.

The discussion of the human context of sustainability is divided into the following themes: quality of life, which includes economic, social, and environmental factors; local, national, and global issues, and paradigms and solutions to these issues.

Quality of life
A life of quality is one which is fulfilling, self-actualized, and prosperous. Quality of life is the underlying theme that connects the interrelated aspects of sustainability relative to the human context. This includes economic, social, and environmental elements.

Economic
An economically sustainable society provides material needs for its members while ensuring that environmental resources are not depleted. Aspects of the economic side of sustainability include healthcare, food supply, employment, education, and the issue of poverty. Economic issues to consider include: ensuring a work force based on work that dignifies rather than demeans; determining best ways to care for the elderly and ill, while maintaining economic viability within a healthcare system; determining how best to produce and disseminate food; providing adequate, safe and clean housing; and implementing understanding of whole systems and sustainability into educational practices.
Social
Any discussion of quality of life cannot be complete without the examination of our social institutions and culture in which those institutions are embedded. It is the social aspects of culture that connect human beings to community, and determine outlooks, values, and practices. Social issues to consider include: providing access to quality education; balancing regional and cultural pride with tolerance and appreciation for diversity; fostering flexibility, innovation and intellectual challenge; developing political structures that balance short and long term considerations; addressing issues of environmental justice; promoting meaningful interpersonal relationships; and encouraging civic engagement at the local as well as international levels.

One new paradigm, for example, which addresses social involvement and sustainability is the eco-municipality. Features of eco-municipalities include establishing sustainable routines at varying levels—individual to institutional—that minimize human impact on the environment, limit use of fossil fuels and pollutants, grow organic food locally, and positively use renewable resources. Citizens are encouraged to participate in democracy and local business in order to create an independent society. An integral part of the eco-municipality paradigm is the notion that participation in the democratic process is needed in order to make necessary changes to achieve sustainability.

Environmental
For quality of life to occur, a society must acknowledge the importance of a healthy environment. Therefore, we must take steps to ensure a ecologically sound environment, and acknowledge humanity’s role in the interconnected ecological web. Environmental issues to consider include: air and water quality; water resources; land usage and agricultural practices; and animal habitat. In addition, a healthy environment is conducive to spiritual values.

According to the “Sustainable Critical Infrastructure Systems” (2009) report, the ability for the United State’s critical infrastructure systems to provide readily available energy, drinking water, transportation, and telecommunications will determine quality of life for American citizens. The report suggests a comprehensive framework that covers issues ranging from supplying crucial services, understanding the interconnected nature of these systems, systems-based approaches, to performance measures. The goal of such a paradigm is to establish infrastructure systems that are “resilient, cost-effective, socially equitable, and environmentally sustainable” long-term.

Local, state, national, global issues
Integral to understanding sustainable frameworks at specific levels are community principles which rely on cohesion and cooperation. Based on such principles, a number of successful paradigms have been established at local, state, national, and global levels. One example of each is provided below as a model for promoting sustainable societies at each respective level.

Local
The Ontario Round Table on Environment and Economy (ORTEE) is one model for sustainability that emphasizes the advantage of community involvement and the importance of acknowledging “limits to growth, carrying capacity, biodiversity, and ecological decision making” (Edwards 2009). The ORTEE framework is adaptable for varying sizes of community, which is an important characteristic for a sustainability model.

State
The Principles of Sustainable Development for Minnesota, established by the Minnesota Environmental Quality Board (MEQB), is one example of a detailed state-level sustainability initiative. The components of this initiative include global interdependence, land stewardship, conservation, indicators and shared responsibility. Of these, two stand out as dynamic: 1) global interdependence, or the notion that resolutions must be based in both regional and global frames of reference; and 2) indicators, which provide a means to lead public policy as well as private measures. Stated goals of the MEBQ include drawing attention to sustainable involvement, evaluating development, supporting communities and businesses, producing new methods to address legislature, and appreciating the link between “long-term economic and environmental health, and the issues of liberty and justice.” (Minnesota Round Table, 1998).

National
The Netherlands’ National Environmental Policy Plan (NEPP) is an initiative that recognizes the “globalised” nature of the modern world and its detrimental impact on the environment and society. This model proposes to establish a sustainable setting in 25 years; thus far, according to the Resource Renewal Institute, more than 70% of NEPP’s objectives have been accomplished. The NEPP deems the connection between quality of life and the environment a significant factor in sustainable development. This connection is reinforced by the “precautionary principle” and the “standstill principle” both of which essentially state that a society should halt any action that has the potential to harm the environment. The NEPP focuses on the importance of “intergenerational equity” or, sustainable practices for succeeding generations. In addition, the “environmental space” principle suggests a restriction on individual resource consumption that can be quantified using, for example, the Ecological Footprint.

Global
An example of a global sustainability initiative is the Earth Charter which aims to achieve global consensus by supporting global discussions and encouraging awareness, commitment, and implementation of Earth Charter Values. The Earth Charter is a
multifaceted program that promotes environmental integrity, social justice, democracy, biodiversity, and the precautionary principle. Finally, in order to create cohesion between all levels of community in terms of sustainability, a consensus is crucial, specifically a consensus on sustainable principles and practices that translates the local to the global.

**Conclusion**
When considering the human element of sustainability and quality of life, the issues of material security, constructive creativity, and growth relative to available resources are key points. Ultimately, workable solutions require an integration of initiatives at the three levels of local, national and global.

**References and Additional Readings**
Berry, Wendell. *Bringing it to the Table*. Counterpoint, 2009.


Online presentation of the Netherlands' successful National Environmental Policy Plan.


B. Sustainable Economics: Production, Supply, and Consumption

Lee Payne, Paul Sandul, Jerry Williams

Focus Questions

1. What are the social, environmental, and health costs of production, consumption, and the flow of material goods?
   a. What roles should the government, the private sector, and civil society play in dealing with these problems?
   b. How can production, supply, and consumption be linked to facilitate a comprehensive response to sustainability?

2. According to the European Commission, environmental sustainability should be integrated with economic growth and welfare by decoupling environmental degradation from economic growth and doing more with less. Can this goal be accomplished? If so, how? If not, why not and what is an alternative approach?

3. What strategies exist for enhancing the life-cycle of products, boosting the demand for better products and production technologies, and enabling consumers in making informed choices? What ensures success with these strategies? Where are the gaps and how can they best be addressed?

Introduction

"Nature is medicinal," wrote Ralph Waldo Emerson (1903). For Emerson, as well as other Romantics like Henry David Thoreau, Nathaniel Hawthorne, and Thomas Cole during America's first so-called era of industrialization and market revolution, sylvan surroundings and the natural environment, unsullied by railroad lines and factories, reflected the proper space of living and lifestyle. Accordingly, this idyllic landscape would ensure the steady growth of republican government and the spirit of democracy alike. Citizenship, indeed humankind itself, at least according to this story, was more natural in a rural environment than the ever increasing city environments and factories of an industrialized western world. "I view large cities," wrote Thomas Jefferson (1800), "as pestilential to the morals, the health, and the liberties of man.

This tension between "nature" and industrialized modern economies is a well-worn theme in everyday and political discussions about sustainability. Can nature be protected from the advances of capitalism and technology? Is it possible to have both jobs and a sustainable future? In this section we explore the major themes of this debate. We first turn our attention toward the nature of value.

The nature of value – anthropocentrism or ecocentrism

Economic systems by definition control, regulate, and distribute value. As a place to start, let us define value as anything that has a use for a living organism. According to this definition water, corn, coal, and a beautiful skyline all have value. For humans, water, corn, and coal have utilitarian value and a beautiful skyline has aesthetic value (Marx 1977).

The environmental literature describes two ways of thinking about value (Catton and Dunlap 1978; Buttel 1992). Anthropocentrism suggests that the environment only has value as it relates to human uses. For example, coal has value only because it can be used by humans to produce energy. Similarly, insects only have value if they serve as pollinators, or to control other destructive pests. Curiously, anthropocentrism is a perspective shared by both Marxist and neoliberal economists. From both perspectives, value is not possible outside of a human context. In contrast, ecocentrism suggests all species have inherent value independent of human uses. For example, humans might choose to protect an endangered species not because of its possible value to humans, but rather because as a species it has value and is worthy of protection. Similarly, in the case of expanded urban development, an ecocentric perspective encourages us to consider the increased human uses of the development as only one of many types of value. The inherent value of the ecosystem and other species would also need to be considered. Conversations about sustainability must address the nature of value. When we look toward the future, do anticipate only human needs or also those of the broader ecosystem?

Economic systems – nature as commodity or the socialization of nature

The environmental literature contains a substantial debate about the organization of economic systems. This debate involves the role of capitalism in the sustainable future. Most agree capitalism represents a system of economic production that has produced remarkable results. Today the average global citizen lives better than her counterpart at any other time in history. Pro capitalist voices argue that nature should be treated as a commodity with its value determined by an open and unrestrained market. Sustainability is possible, it is argued, by allowing the market to respond to environmentally friendly developments such as "clean energy."

It is important to note that there are also a variety of anti capitalist voice in the environmental literature. Foster (Foster 1996; Foster 1997), for example, argues that capitalism is a system of "creative destruction" that has an inherent flaw - economic competition leads to overproduction and therefore increased environmental destruction. Similarly, Schnaiberg and Gould (Schnaiberg and Gould 2000) argue that the growth imperative in capitalism leads to a "treadmill of production" that can never be overcome as long as capitalist economies remain in place. These authors suggest that the "socialization of nature" would mean that all natural resources should be collectively owned and democratically managed (Foster 1999). The socialization of nature is an idea easily dismissed in the United States. However, the growth imperative in capitalism does require some thought as we think about the sustainable future. At a modest annual growth rate of 3%, the United states economy will double every 24 years. Can the environment sustain this rate of growth?
Economic environmental policy
Research pertaining to the ramifications of environmental policy on economic growth (Freudenburg 2005, Goldstein, Huang, and Akan 1992, York, Rosa, and Dietz 2003) has been extensive. Of concern is how environmental policies affect economic growth. It is difficult to address this issue without considering the impact of production (Bitsell and Bulkeley 2004, Shue 1999) on the environment and the availability of resources (Clack and York 2005) as well.

Economics, production, and resources are closely linked because the world market system has created a situation where resource rich, but economically poor, countries are used by resource demanding, but economically rich countries. Fueled by the “not in my back yard” (NIMBY) philosophy, this system produces boudoir and proletariat countries – where the boudoir developed countries (DCs) maintain a standard of living off of the production and resources of proletariat less developed (LDCs) countries (Shue 1995).

An argument often put forth by those defending the status quo is that environmental policies hurt economic growth. On a globally scale, this manifests as the North/South divide. The northern DCs argue that increasing environmental regulations will stifle productivity and drive industry, and jobs, to LDCs with less environmental regulations. Freudenburg refers to this as the pollution is “economically vital” assumption (2005).

The southern LDCs argue that forcing stronger environmental policies on their countries gives DCs an unfair economic advantage. As such, it is in the southern country’s economic interests to pollute in the pursuit of industry and jobs. In addition, southern countries contend that the imposition of stronger environmental regulations on their systems perpetuates the core/periphery relationship between northern and southern countries. Goldstein, Huang, and Akan argue that, “the periphery’s raw materials are exchanged (on unequal terms) for the core’s manufactured goods” (1992, 243). As evidence of the “unequal” terms, Goldstein, Huang, and Akan state that, “the global South with 76 percent of the world’s population accounts for only 26 percent of the world’s aggregate energy consumption” (1992, 246). Further, the South exports large quantities of energy, while the North imports large quantities of energy (Goldstein, Huang, and Akan 1992).

One possible solution to environmental problems may be found in “economic modernization” theory. Proponents of economic modernization theory argue that, although economic development has created environmental problems, further economic development can solve these problems (York, Rosa, and Dietz 2003). The assumption being that, “in capitalist economies, business has a strong incentive to invest in research and development that can lead to technological innovations … [while] in controlled economies, no such incentives exist as investors do not necessarily profit from their inventions” (York, Rosa, and Dietz 2003, 284).

In response, Clack and York (2005) apply the “treadmill of production” theory developed by Schnaiberg and Gould (2000), which argues that “modern societies, particularly market dominated ones, are driven by a relentless commitment to growth, despite its social and ecological costs” (2005, 394). The treadmill of production theory is closely linked to the “Jevons paradox.” Jevons paradox points out the inherent contradiction of economic modernization. It argues that improvements in efficiency actually increase the use of natural resources under capitalist conditions. Both theories posit that modern production systems are growth dependent.

Clack and York (2005) offer empirical evidence in support of Jevons paradox. They point to increases in carbon efficiency in the United States, the Netherlands, Japan, and Austria compared to total CO2 emissions and CO2 emissions per capita from 1975 through 1996. While all four countries realized significant increases in carbon efficiency, they experienced increases in total CO2 emissions and CO2 emissions per capita as well. Freudenburg (2005) addresses several additional “assumptions” related to economic growth, production, and environmental resources. Assumption three is that heavily polluting activities are vital to the economy; assumption four is that the costs of regulation would force some firms out of business; assumption five is that regulated firms would move to less stringent third-world countries; and assumption six is that regulated firms would pass on increased costs to consumers.

In response to assumption three, Freudenburg (2005) concludes that high levels of pollutants are likely in older industries that utilize outdated, inefficient technologies. Where assumption four is concerned, Freudenburg (2005) provides empirical evidence that the costs of compliance with limits on sulphur dioxide (SO2) emissions in the early 1990s were less than a tenth of the projected costs. Addressing assumption four, Freudenburg (2005) found that regulated industries have generally chosen not to leave the U.S. and that, of the industries that did leave, 84 percent moved to heavily regulated, developed countries. Finally, Freudenburg (2005) dismisses assumption six with a simple cost/benefit analysis, arguing that consumers would be willing to assume modest cost increases for increased environmental benefits.

While much attention has been given to state level environmental agreements (Copenhagen, Kyoto, Rio, etc.) designed to combat the global aspects of environmental damage, Bitsell and Bulkeley offer a compelling argument for focusing on localities, or “issue networks” as a means of combating global problems. Issue networks are an alliance of actors united to promote a single issue or policy. Bitsell and Bulkeley’s research focused on the Cities for Climate Protection (CCP) program, which consisted of 550 local governments “concerned with promoting local initiatives for the mitigation of climate change (2004, 472).

Once cities were in the program, they committed to five milestones: (1) conducting energy/ emissions inventory/forecasts; (2) establishing emission reduction targets; (3) developing local action plans to achieve targeted reductions; (4) implementing policies and
measures to ensure success; and (5) undertaking processes of monitoring and verifying results (Bitsell and Bulkeley 2004).

Unfortunately, Bitsell and Bulkeley’s research was a case study, which makes generalizing their results impossible. That said, there is obvious value in addressing local environmental issues to affect the global environment. As Bitsell and Bulkeley point out, “the battle cry of the sustainable development movement [is] ‘think globally, act locally’” (2004, 476-477).

There are obvious limits to natural resources – fossil fuels are finite. Once they are used, they are gone forever. These fuels are major contributors to global warming and associated with the success of DCs, which use a disproportionate amount of fossil fuels. Renewable resources, such as wind, solar, and bio-fuels, are promising. Wind and solar energy are especially promising because they lack the negative externalities associated with fossil fuels – CO2 byproducts. Bio-fuels, while renewable, suffer from two negative externalities – they produce CO2 and, if not properly regulated, they can destroy the soil they are grown in. Clack and York (2005) offer a historical overview of this process. Given their research, it can be argued that increased demand for bio-fuels may result in the depletion of soil nutrients, especially in LDCs, to the point of reducing future agricultural outputs.

Several conclusions regarding economic growth, production, and environmental resources can be made. Regarding economic growth, increased environmental regulations are not likely to hamper economic growth. Given Freudenburg’s (2005) findings that the economic assumptions used to perpetuate the status quo are not indicative of industry behavior, increased environmental regulations should be pursued. Production, whether local or global, and environmental resources are inescapably global issues. DCs rely on the production and resources of LDCs in order to maintain their standard of living. While this relationship exists, the negative externalities of production disproportionately affect LDCs while DCs will continue to enjoy the positive externalities of production. Finally, the DCs disproportionate use of environmental resources is harming the planet by destroying carbon sinks.

References and Additional Readings


C. Sustainable Communities: Social Involvement & Responsibility
Bill Forbes, Kathleen Belanger, Rhiannon Fante-Konwinski

Focus Questions
1. What are the key public policy goals required in moving toward sustainable communities?
   a. What role should government (federal, state, local) play in developing and supporting sustainable community development?
   b. What public policy tools are required and/or available to promote social/personal involvement in achieving sustainable living?
   c. What should be the short-term policy strategy for reasonable action on sustainability at the local and national levels?
   d. Where should sustainable communities be placed in priority with other public policy goals?
   e. Can sustainability be regulated? What evidence/experience exists to suggest this is practical or constructive?
   f. What role does economic development play in creating sustainable communities?
   g. Does government have a duty to encourage developments in the science of sustainability?
2. Should public policy dictate standards of corporate responsibility in the context of sustainability?
   a. Should the concept of “corporate sustainability” vary by industry? If so, what should be core to all industry?
   b. How can corporate responsibility and the obligation to shareholders be balanced in an equitable fashion?
   c. How should lip-service to “corporate responsibility” by companies be addressed in positive and proactive ways?
   d. How can company leadership activate its staff to embrace sustainable community concepts on a personal level (motivating from the inside out)?
   e. Is there a business case to be made for sustainable communities, or are companies naturally competing with sustainability from a profit perspective?
   f. Could voluntary standards be established (much like Energy Star, LEED, etc.) that create new market expectations for consumers, requiring companies to join?
3. How can sustainability initiatives be linked locally, nationally, and globally?
   a. What role should social justice play in the overall sustainability strategy?
   b. Is a global policy strategy feasible and/or desirable? If so, what are the elements and who are the actors? What are the challenges and how can they be overcome?
4. What is the responsibility of the individual and how should this responsibility be balanced with broader societal needs and impacts?

Introduction
By community, we mean “an interacting population of various kinds of individuals (or species) in a common location or subject area.” Community is typically thought of as a neighborhood, town, or even city. A broader definition can refer to a local community, international community, scientific community, or even a biotic (biological) community. Fundamental to this topic is the understanding that communities have value in and of themselves, apart from the individual, and that values can be oriented towards their maintenance and vitality.

The term sustainable communities not only assumes that maintenance of communities is a valuable end goal, but that the four “interdependent and mutually reinforcing pillars” of sustainable development - economic and social development and cultural and environmental protection (recognized by the UN) – are also goals for a “livable” world. The subheadings of social involvement and personal and corporate responsibility refer to the sectors of society viewed as responsible for sustaining these pillars. Under the category of social involvement, public policy (including government policies) is considered to be a key factor. Personal, corporate, and community responsibilities, in all their diversity, fill out the societal spectrum. In what follows we address the key issues associated with sustainable communities.

Community/individual responsibility
Relationships are at the heart of healthy communities. Social capital generally refers to the benefits accrued by membership in a social network or group (Bourdieu, 1986; Coleman, 1990). While social capital appears to be declining in American politically defined communities (Putnam, 2000), membership in groups may be changing. Internet communities (Facebook, Twitter, Linkedin, etc.) websites, e-mail correspondence, immigration and emigration and the increasing global marketplace challenge our understanding of community.

Role of religion and ethics
While religion can be thought of as individual choice, it can also form one of the strongest forums for community and social activism. The Acton Institute (2007) gathered an interfaith group of Judeo-Christian scientists and theologians who proposed theoretically-
based principles for environmental stewardship (The Cornwall Declaration of 1999). Organized religions have issued statements related to theology and environmental stewardship and both Harvard and Yale recently hosted major workshops on religion and environment. The role that religion and spirituality play in health and mental health are also indirectly related to sustainable communities. Kristoff (2010) notes the impressive role of conservative Christian organizations in overseas aid. Harold Koenig of Duke University and other researchers have linked religion/spirituality with better health/mental health outcomes, longer lives, less depression, shorter times recovering from illness, and other factors we consider part of well-being, desirable for sustainable communities.

Aldo Leopold (1949) wrote *A Sand County Almanac*, one of the most widely read books in conservation, largely due to its seminal essay “The Land Ethic.” He suggests extension of ethics to the biotic community as a natural progression in the evolution of human ethics over time – from individual outward to family, to village, to nation, and now to nature. He noted that government conservation could not be the sole solution; instead a land ethic needs to be adopted among individuals, such as farmers practicing soil and wildlife conservation on their properties.

**Role of psychology**

Psychology plays a large role in promoting sustainable behavior. Many environmental problems are a direct result of human behavior, and can be managed by changing those behaviors (DuNann-Winter & Koger, 2004; Gardner & Stern, 2002; Vlek & Steg, 2007). Leopold discusses the importance of community peer pressure in helping individuals adopt a land ethic, (see also Conservation Psychology: Understanding and Promoting Human Care for Nature Clayton & Myers, 2009). Consumption patterns have become recognized as unsustainable and solutions tend to promote technological innovations over reduced consumption (Cohen, 2007). Although technical innovations can improve environmental quality, individuals need to accept them, purchase them, and use them in proper ways (Midden, Kaiser, & McCalley, 2007). In addition, people highly concerned about the environment differ greatly in the amount of time and energy they are willing to invest in sustainable behaviors (Séguin, Pelletier, & Hunsley, 1998) and many fear that engaging in sustainable behaviors will diminish their quality of life (Merkel 2003). Sustainability leaders, (Ferdig, 2009) are those who have chosen to take responsibility for understanding sustainability challenges and to address them. They provide direction, build consensus, and foster change in order to achieve the goals of an organization or community (Stacey, 2002). “Sustainability leaders make the notion of sustainability personally relevant” and they recognize how “collaborative self-organized leadership can generate innovative and sustainable solutions for a more sustainable world” (Ferdig, 2009).

Early exposure to nature is important to child development and conservation, a key theme of *Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder* by Richard Louv (2005) and *The Geography of Childhood: Why Children Need Wild Places*, by Gary Nabhan and Stephen Trimble. Community and school programs help foster exposure to and appreciation for nature.

**Geographic scale**

In our increasingly interconnected world, geographic context becomes correspondingly important. Americans have 5% of the world’s population yet use 30% of its resources. Thus we export a significant amount of environmental impacts. Yet our most intimate connections can come from local experiences.

**Local/Urban/Suburban**

One of the ways communities can ensure nature and wild places are mixed in with urban and suburban environments, where most of us live, is by providing open green space. This does not rely solely on government. Developers can help communities include open space (with public access) in subdivisions, as shown by Randall Arendt’s 1996 Conservation Design for Subdivisions. One of the most common early references for environmentally sensitive urban and suburban planning was Ian McHarg’s (1969) *Design with Nature*. His firm designed The Woodlands, Texas. A recent retrospective suggested the planned suburb addressed the main issues of the time, protecting forest and floodplain, but its over-reliance on cars is still problematic. A resource for individual and community sustainability innovation, a major part of which prioritizes urban/suburban issues, is Alex Steffen’s 2006 book, *Worldchanging: A Users Guide for the 21st Century*, and its associated website (http://www.worldchanging.com).

**Regional/rural**

Wendell Berry (1984), Bill McKibben (2007), and Robert Thayer (2003) are among noted authors who suggest locally place-based strategies: returning a focus to one’s home region, coupled with decreased production and consumption. Regional sense of place can be seriously disrupted by forces of globalization. Expanded transportation infrastructure (freeways, high-speed trains, etc.) can bypass small towns and transform exurbs into suburbs. Multinational franchises compete with local businesses; primary/extraction industries temporarily import workers, industrialize agriculture, transform environmental quality, and externalize land ownership. A good resource for rural planning is the Rural Policy Research Institute (RUPRI) (see their website http://www.rupri.org/).

**Global**

marketing and domestic and international law have institutionalized overconsumption. Bucholz and Rosenthal examine roots of consumption behavior, calling for “qualitative” economic growth. Herman Daly suggests alternative, “steady-state” economics. The relatively new field of political ecology offers critiques of globalization that often transforms rural developing nation agriculture from subsistence to unstable, marginal global markets. Many global impacts are unforeseen, such as promotion of ethanol as an alternative fuel, which raises corn prices and thus US acreage in corn, thereby shifting global soybean production to Brazil, increasing tropical deforestation. Geographers Barnett, Cloke, Clarke, and Malpass (2010), within the scope of a major UK consumption analysis project, suggest that fair trade cities may offer a unique opportunity to connect consumer and producer communities. They analyze Bristol, UK’s fair trade program, an exemplary resource for mitigating a community’s global impacts:
http://www.bristol.gov.uk/ccm/content/Environment-Planning/sustainability/fairtrade.en

**Corporate responsibility**

Increasing evidence exists that there is a business case to be made for sustainable communities. Noted Harvard economist Michael Porter (2006) finds a positive link between competitive advantage and corporate responsibility. The conceptual framework of “Shades of Green” offers further examples. “Shades of Green” is a term coined in the 1990s to refer to various levels of commitment to environmental causes, typically as applied by businesses. Edward Freeman, Jessica Pierce, and Richard Dodd produced the first book on the subject, *Shades of Green: Business Ethics and the Environment*, in 1995.

Morson and Mongoven (2007) lump current business environmental approaches into three shades of green: public relations; reacting to market transformation; and, actively transforming the market. They categorize BP’s recent Beyond Petroleum effort as primarily public relations, which is relatively easy to see through if wider program change does not occur. The second, greener category is reacting to market transformation. An example is the partnership between jewelers and non-governmental organizations to market conflict-free diamonds, a program that avoids significant social ills in the production and marketing process. The third, greenest category is termed “actively transforming the market.” A relatively high-profile example was DuPont’s championing of the Montreal Protocol to reduce or eliminate chlorofluorocarbons (CFCs). The authors don’t see a problem with the fact that DuPont also benefited financially by being first to develop alternatives to CFCs. Morson and Mongoven mention that innovative, third category companies can cause second category firms to spend R&D funds to react: “Although studies repeatedly show that consumers care very little about the social values of the companies from which they buy, studies also show this attitude is changing…the companies that find themselves in the second category -- those forced to react to market transformation -- are yearning for some definitions on what it means to be socially responsible.”

One of the more prominent recent summaries of the common ground between business values and environmental values is Joel Makower’s (2009) *Strategies for the Green Economy*. He highlights early successful, “win-win” corporate programs. 3M was an anti-pollution pioneer who took a prevention approach in the 1970s that saved billions of dollars. Large, diverse corporations such as Anheuser-Busch, General Motors, McDonalds, Nokia, and Proctor & Gamble have cut costs by reducing packaging. Others have become the largest purchasers of environmentally-friendly products, including organic cotton (Walmart and Nike), renewable energy (Intel and Pepsico), landfill gas that generates electricity (General Motors), fair trade coffee (Starbucks), FSC certified wood (Home Depot), and recycled products (McDonalds).

Just as there are shades of green, there are shades of greenwashing, a term coined in the 1990s by Greenpeace to refer to the selling of a company’s products based on image rather than actual environmental performance. Although it is getting safer for firms to advertise their green practices, Bissell took the wise approach of stating their company was becoming a “little greener,” moderating expectations. Makower cites a 2007 study that found that 70% of “Americans strongly or somewhat agree that when companies call a product green, it is usually just a marketing tactic.” Makower suggests there is hypocritical “green consumer washing” as well, where consumers do not act on their values when purchasing or gauging other lifestyle decisions. He challenges consumers to take similar responsibility in their actions that they want to see in corporations.

However, company efforts and consumer reaction vary (Makower). Levi Strauss started using more organic cotton but, so as not to build expectations, did not advertise it. Coca-Cola did advertise more recycled content in their containers but, when they couldn’t meet their commitment, were castigated by activists. The resulting boycotts did not impact sales but did impact the company’s ability to attract new recruits out of college. The company then reacted. While activists can accept imperfection if the company understands the issues and is sufficiently concerned, but this can be difficult to communicate. Even the most progressive firms such as Patagonia, Starbucks, and Stonyfield Farms tend to be held to higher standards; a recent campaign targeted Starbucks to sell more fair trade coffee, even though it is that product’s largest purchaser.

In *addition to external pressures, cost cutting, and marketing, corporate leadership can be a big factor in changing practices. Early in DuPont’s efforts towards sustainability, an executive asked plant engineers to comply with new environmental standards. The engineers initially responded that it simply could not be done. The executive indicated the alternative was to close the plant. The engineers then returned with a proposal that not only complied with standards, but saved the company money (Freeman, Pierce, and Dodd). Marshall recently found that, of “198 medium-sized to large multinationals, most said they lacked an active approach to
Conservation Plans have allowed the issue of habitat fragmentation to be addressed by public-private partnerships in California and non-profit land trusts, are sometimes used to establish and maintain open green space. US Fish and Wildlife Service Habitat localities have no provisions to regulate sprawl. Public-private partnerships, such as those between local government, developers, and Stewardship Council, endorsed by numerous environmental groups. Some market incentives exist for using the stricter standards. For Urban and suburban planning is a key area of debate about sustainable communities. Jane Jacobs provided an important reference in Public policy and communities. Walmart is working on guidelines for accountability. Bradford Plumer suggests much of Walmart's recent greening effort is Walmart has recently increased sustainability practices through a “stakeholder green” approach that included cost savings, and a “market green” approach to reach new customers. Compliance is seen as a major issue, as the international commodity chain often contends with issues such as health and safety, illegal logging, and dishonest labeling. A clear chain of custody is needed from source to market. Walmart is working on guidelines for accountability. Bradford Plumer suggests much of Walmart’s recent greening effort is to capture the higher income market that makes up 20-40% of US consumer spending and typically does not shop there.

Public policy and communities
Urban and suburban planning is a key area of debate about sustainable communities. Jane Jacobs provided an important reference in this debate in the 1960s, arguing against modernist, government urban “renewal” programs in Greenwich Village. Some large cities and suburbs now use comprehensive planning and zoning as incentives to spur more vibrant “mixed use” development that occurred in Greenwich Village over decades without planning, under the context of “new urbanism.” Many localities, such as Houston, have little to no government intervention such as comprehensive planning or zoning. A natural market force has brought developers back into devalued inner city property to gentrify (upscale) downtown areas, creating cultural impacts by displacing over 900,000 US residents in recent decades. Unforeseen consequences can occur, such as unaffordable housing occurring after growth and sprawl management.

In terms of local communities, some states such as Maryland (smart growth) or Oregon (urban growth boundaries) regulate or provide incentives for controlling urban sprawl. In most cases, however, this issue is addressed at the county or local government level. An unusual example is the county of Boulder, Colorado, which employs up to sixty people in its open green space program. Many other localities have no provisions to regulate sprawl. Public-private partnerships, such as those between local government, developers, and non-profit land trusts, are sometimes used to establish and maintain open green space. US Fish and Wildlife Service Habitat Conservation Plans have allowed the issue of habitat fragmentation to be addressed by public-private partnerships in California and Texas that allow development while protecting habitats for suites of species, some of them threatened or endangered, such as the golden-cheeked warbler.

Conclusion
Communities occur among various common networks and at various geographic scales. Sustainability initiatives increasingly address the four pillars of economic and social development and cultural and environmental protection. However, at the same time and at a greater rate, economic growth increases production and related consumption of resources. The bottom-up global microloan effort has met largely top-down, free market expansion to fight global poverty. Similarly, a goal of scaling up the largely bottom-up sustainable communities effort to meet more powerful corporate and public policy initiatives suggests a possible “win-win-win-win” situation, enhancing the resilience of future economies, societies, cultures, and ecosystems.

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Focus Questions

1. Robert Goodland defines human sustainability as “maintaining human capital. Human capital is a private good of individuals, rather than between individuals or societies. The health, education, skills, knowledge, leadership and access to services constitute human capital.”
   a. How can human sustainability be promoted consistent with environmental sustainability?
   b. In moving toward a social commitment to achieve human sustainability consistent with environmental sustainability, identify concrete steps that would facilitate this transition.
   c. How should we measure the progress of these advances in terms of human capital?
   d. In an increasingly isolated and narcissistic culture, individual personal “private good” will be in conflict with the “private good” of others. Who defines the standard and how do we achieve consensus quickly?
   e. Since human capital without social networks is ineffective and unsustainable, should we seek to accomplish both at the same time? If so, how do we accomplish this balancing?

2. According to the World Bank: “People concerned about sustainable development suggest that meeting the needs of the future depends on how well we balance social, economic, and environmental objectives—needs—when making decisions today…. Many of these objectives may seem to conflict with each other in the short term. For example, industrial growth might conflict with preserving natural resources.”
   a. How can a connection between economic well-being, community well-being, and environmental well-being be developed in a way that promotes the interest of each?
   b. How should the conflict between community well-being and personal well-being be addressed?
   c. How can we define this balance in a meaningful and substantive way that achieves consensus quickly and engages more people in the conversation sooner, and then works toward more aggressive goals as a group?
   d. What is the role of government and legislation in these conversations, particularly when the good of the whole is in conflict with the good of the few?

3. According to Solutions for Our Future, education is the linchpin in achieving progress toward sustainability.
   a. Is education in fact the linchpin and if so how does this get leveraged? If not, what is the key to progress toward sustainability?
   b. What role should education (secondary and higher) play in moving toward a sustainable world?
   c. How can ideological messages be neutralized in an educational context?

Introduction

This section of the briefing book deals with solutions for sustainability. The number of anthropogenic (i.e., human generated) environmental problems affecting both human well-being and environmental well-being is great, so the strategy behind this section will be to frame and examine the two broad categories of solutions into which more specific ones will likely fit, namely, solutions that are market-based and solutions that are governmental based. Why these are the two broad solutional categories will be explained, as will the problems with relying exclusively on one without the other. The hope is that an ideological bridge can be built by explaining why sustainable development depends upon both markets and government. The section concludes with some considerations regarding educating the young about sustainability.

Sustainability as a solution

Many have mobilized to confront problems of environmental degradation, as the same scientific method that allows for technological innovations also reveals the degree and scope to which we have been disrupting our environment. Interestingly, despite the causal relationships between environmental harm and certain patterns of economic production and consumption, some of the mobilized argue that positive environmental change can occur while continuing economic growth, growth that can continue bettering the lives of humans, especially those of the world’s poorest. As Holland explains, it is this complementarity that is at the heart of “sustainability;” the idea is that we can have both our economic growth and a well-functioning environment too (Holland, 2003, pp. 390-391).

Holland traces this idea of sustainability or “sustainable development” back to a report issued in 1980 by the International Union for the Conservation of Nature. But it was in 1987 that the World Commission on Environment and Development put forward what is widely considered the seminal text on sustainability: Our Common Future, also called The Brundtland Report. The sustainability principle argued for in the Brundtland Report is that pursuing development represents good policy, so long as such development is consistent with maintaining environmental capacity. In short, we ought to embrace “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987, p.8).
What sustainability entails
The central question emerging from this principle is: what are the solutions yielded by the application of such a principle. Or to put the question another way, what kind of development is consistent with a continuously well-functioning environment. To be sure, the specific content of such solutions will have two important inputs: markets and governmental regulation. This is because any notion of sustainability consistent with typical human behavior entails that those solutions will be shaped by both market and regulatory mechanisms.

Consider the nature of relatively free markets, where the prices of goods and services are mostly determined by competition between businesspersons. Such markets are extremely useful in providing goods and services in an efficient manner. As economist Richard Stroup observes, “[m]arket decisions are diverse and decentralized. Many mistakes will be made, but they will have far smaller effects than if central planners made them for the entire society” (Stroup, 2003, p.85) Indeed, one need only observe the wealth and innovation market economies generate to see that there is much to Stroup’s claim. And because one of the explicit commitments of sustainable development is fostering human well-being by means of economic development, it is difficult to conceive of realizing such a good absent one of the most powerful tools of wealth creation we know. Thus, the very nature of sustainability, which, again, has development as a chief goal, makes market activities a necessary condition for sustainable development.

Notice too, however, that the key constraint sustainable development imposes upon itself is that current production and consumption must allow future generations to meet their needs also. Unfortunately the self-interest that drives markets, even of the enlightened variety, is often too shortsighted to take into account the well-being of those persons, say, four generations removed from someone currently calculating how best to dispose of his pollutants. Science, though, is refined enough to let us think in such future oriented terms, for it allows the cumulative effects of resource consumption and pollution to be both recognized and confronted.

Our current situation has us peering through the lens of science and seeing a future for nature that yields a quality of life we would not want for ourselves, or for our children, or for our children’s children. For example, we see the implications of climate change and consider its causes. It is reasonable to observe that emissions of carbon dioxide and other greenhouse gasses have a threshold effect so as to yield a hotter planet, one more inhospitable to a variety of species, including our own. Thus, the same governments providing the rule of law that allows markets to flourish must provide regulations and other constraints to mitigate such change (e.g., by capping the amount of carbon dioxide emissions). Once again, it can be seen how the idea of sustainable development entails the general nature of at least some of its solutions, namely, regulations that keeps in mind future generations’ well-being in a manner that markets do not.

Unpacking the concept of sustainable development in this way may seem to yield mere trivialities. It is just obvious, one might think, that having a healthy environment necessitates both robust market involvement and solid governmental regulation. But consider contemporary political discourse. There are those in power who seemingly wed themselves to one type of solution over another while still advocating what essentially amounts to sustainable development. If the concept of sustainable development is shown to make necessary both types of solutions, then it is useful to reboot the very concept from time to time to demonstrate precisely what it entails. And that is what is being done here.

The golden rule of sustainability
As with other important life lessons, becoming sensitized as to what sustainability involves should begin early with childhood education. Children should learn, as they often do now, that the environment is our life support system and that it is something largely made up by, and shared with, a variety of contributory life forms. It is a fact too that humans operating within the environment are trying to better their own circumstances, and this takes resources. The principle of sustainability serves as a constraint on how far the earth’s current occupants can go in trying to achieve such betterment. Indeed, thinking along these lines yields what we can call, “the golden rule of sustainability: “Do unto future generations as you would have had previous ones do unto yours.” What is important is making this principle, along with its justification, operative in the minds of future citizens.

Conclusion
To finish this section we would like to provide a cursory list of what an educational approach to sustainability might look like, specifically one that teaches lessons consistent with the aforementioned principle. The list points toward a sustainability education program integrated across multiple subject areas; it uses school-community contexts; and it develops foundations for primary learning through positive behavioral change and by instantiating values in students. Consider a K-12 curricula consisting of the following:

- an educational program to integrate sustainability in student learning across disciplines
- increased use of service learning and the fostering of various school-community connections
- grant funding to reinforce the multi-disciplinary nature of sustainability education in public/private schools and in student learning across disciplines
- public funding for environmental problem-solving activities aimed at making positive differences for a more environmentally conscious generation
- educational programs containing innovative ways to save, harvest, and recycle water and/or to reduce waste and energy consumption in public facilities
- installation of solar and other renewable power systems that can serve as working, on-site teaching tools
References and Additional Readings


## Workshop Protocol and Next Steps

Each discussion session is scheduled for 1 ½ hours. The workshop’s participants will be divided into four groups designed in an effort to balance perspectives. All groups will have an opportunity to address each topic, with topics alternating in sequence based on the following schedule:

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Faculty members from the College of Liberal & Applied Arts will serve as moderators of the sessions. Their role is to promote discussion, ensure no individual manipulates conversation, and guide participants into a consensus set of recommendations. Moderators are assigned to specific topics and will rotate among the groups based on the issue under discussion. In other words, moderators are responsible for monitoring the same topic throughout the workshop.

Each session shall operate in the following way:

- A moderator provides a two minute overview of the topic;
- Participants engage in 45 minutes of wide-ranging discussion;
- At the conclusion of 45 minutes, each participant proposes a recommendation on the topic and defends the proposal for one minute;
- Recommendations can target any audience (global, national, local) or actor (government regulator, corporate, community, or individual) as appropriate;
- Once participants have defended their proposals, each proposal shall be discussed for three minutes in a roundtable format;
- The moderator will poll participants on their position on each recommendation (support or oppose);
- Recommendations must be adopted by consensus;
- Any recommendation that does not receive unanimous support will be open to amendment in an effort to achieve consensus;
- Moderators will record the group’s final recommendations at the conclusion.

As sessions break, participants are requested not to disclose what was discussed within their group. The reason is to enable each group to consider all topics without influence or prejudice.

At the evening dinner (June 2), moderators will reveal the recommendations of each group on the various topics. The following day will be devoted to hammering out consensus recommendations in plenary sessions.

The recommendations will be circulated to media outlets and key policy makers on the regional and national levels. Two additional outcomes are contemplated: (1) a concrete project where the recommendations will be implemented in a real-life communal setting and (2) an edited book that expands upon the recommendations.