

COMMUNICATION STRATEGIES FOR SUSTAINABLE SOCIETIES

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Summary

Sustainable societies can only be achieved if people work together at all levels to create environmentally sound practices and policies. Communication will play a key role in informing and educating people about environmental issues (especially unsustainable practices and health hazards) in order to raise people’s awareness and knowledge of these issues. Once people understand environmental problems and inculcate an environmental sustainability ethic, they can work together toward solutions, or at least, situation improvement.

Since sustainable development might mean different practices and policies for different communities and different nations, each community and/or nation will need to first determine guidelines for sustainability. Communication resulting in consensus is a precursor to development of these guidelines, and communication will be required to implement the guidelines. The articles in this topic section offer suggestions for communication strategies for sustainable societies and will offer examples that can be

used as models for working toward the goal of sustainable development. The topic overview article that follows presents a sustainable community model, and offers suggestions for communication strategies to achieve sustainable communities.

1. Introduction

By the middle of the twenty-first century, Earth's population of human beings is expected to more than double, with the United Nations predicting 14 billion people living on this planet. If populations do expand as projected, several global regions will suffer from severe overcrowding and accompanying environmental degradation. Overpopulation of the human race has already led to serious global depletion of resources and ecosystem pollution that poses health hazards to humans and threats to other species as well.

In order for people to understand the integrated nature of the environment and ecosystems, they need to understand the interconnectedness of living systems and Earth's natural cycles. People must realize that they are part of a complex "web of life," within which they can work to achieve balance between human activities and nature. Such knowledge is a vital precursor to decisions and actions that impact environments and consequently the health of individuals within those environments. However, knowledge alone will not always provide the stimulus to appropriate action. A sense of ethics or "ecological integrity" will be required to provide the conscience to take actions toward sustainability. This must be followed by communication at all levels to initiate action, accompanied by democratic decision-making processes. Individuals and communities will need to work together with the companies that provide jobs as well as goods and services within communities. Community and government leaders must also endorse and implement a politics for sustainable development. These efforts, although they may start at local and/or national levels, must be taken to the international level in the quest for global sustainable development. If sustainable development can be achieved, levels of economic security for all people should also improve.

2. Sustainable Development and Sustainable Societies

Sustainable development has been defined in as many different ways as there are different perspectives on how communities and countries should grow while retaining ecosystem integrity. (See *Sustainability* and *Communicating a Politics of Sustainable Development*.) Perhaps the most widely known and most often used definition was issued by the World Commission on Environment and Development, which suggests that development is sustainable if it meets the needs of the present without compromising the ability of future generations to meet their needs. Sustainable development is really, then, a pattern of living in which human beings are able to meet their biological, psychological, social, and cultural needs in a manner that is respectful of the ecosystems in which they live, such that natural cycles are not compromised, resources are not depleted, and environments are not polluted with substances hazardous to the health of living beings. These patterns of living may vary with geographic regions and according to technological advances within various countries, but one commonality remains the same for all people and all cultures. The common factor is simply that human beings must live in accordance with nature's laws and cycles. A sustainable

society (whether it be a tribal community in Africa or a country the size of India) is one in which people live in harmony with Earth's natural cycles so that they do not overuse or deplete their natural resources (both living and nonliving), and they do not pollute their environment with harmful substances. In order to contemplate ecosystem integrity (also known as ecological integrity), it is necessary to understand that all life on Earth exists because of complex and interrelated natural systems. Life exists on this planet because of the atmosphere, which contains gases required by living forms; because of water, which is required by living beings; and because of energy from the Sun, which offers light and warmth and fuels the food production process.

The food production process, known as photosynthesis, is the natural cycle that provides food for most organisms. Photosynthesis begins with green plants utilizing energy from the sun, along with water and carbon dioxide, to produce food in the form of glucose. Green plants are the primary producers because they produce the basic foodstuff that begins food chains, and they release oxygen in the process. Oxygen is inhaled by animals, and animals in turn exhale the carbon dioxide required by plants. This gas exchange is referred to as the carbon dioxide/oxygen cycle and is necessary for life (as we know it) to exist. If an ecosystem is healthy, the carbon dioxide/oxygen cycle is in balance and therefore sustainable.

Photosynthesis begins the food chain cycle, which involves all organisms, whether living or dead. The food chain cycle consists of producers (green plants), consumers (herbivores and carnivores), and decomposers (organisms that consume dead organic matter). In sustainable systems, the food chain cycle is intact. If any link in the food chain is disrupted, however, other members of the food chain are jeopardized and the system becomes unsustainable. This can happen, for example, when a species in the food chain becomes extinct, leaving those higher on the food chain without a food supply.

Another natural cycle necessary for life and for the production of food is the hydrologic (water) cycle, which collects, purifies, and distributes Earth's fixed supply of water. Water cycles are connected with weather patterns and are influenced by various geologic and geographic features, as well as by human lifestyles. If humans use more water than can be replaced in an area or region, the resulting water shortages lead to unsustainable conditions. The water cycle is being affected by global warming, which most scientists now agree is accelerating due to increased human activity worldwide. Global warming will lead to unsustainable conditions for many areas and regions of the world if it continues at its present pace.

Nutrient cycles (such as carbon, nitrogen, phosphorus, and sulfur) are responsible for recycling chemicals essential for life on Earth and must be kept in balance for sustainable conditions to exist. If nitrogen, for example, is depleted from the air and/or the soil, plants will not be able to perform the nitrogen fixation process for the production of DNA, proteins, and other nutrients.

In addition to these life-enabling cycles, all matter on Earth is finite. According to the law of conservation of matter, matter cannot be created or destroyed. In practical terms, this means that nothing can ever be "thrown away." Whatever waste humans create

must be recycled into natural systems if the material is to be returned to usable form. A sustainable society, then, would be one that produces waste materials that can be recycled into natural systems rather than producing waste products that remain intact in nature indefinitely or for long periods of time (such as radioactive waste products). If the previously mentioned natural cycles are taken into consideration, sustainable development can be defined as development that allows people to meet their basic needs without compromising the natural cycles that allow for life to exist (which, in turn, preserves the environment for future generations). A sustainable society, then, is a collection of individuals living in harmony with nature’s cycles and the planet’s capacity for recycling materials. A model for environmental sustainability must involve humans consenting to lifestyles that maintain the integrity of Earth’s natural systems.

3. Sustainable Community Model

A model for sustainable communities can be constructed using the four “pillars” of sustainability originally suggested by Viederman, Cortese, and Kline. These “pillars” are ecological integrity, democracy, community, and economic security. Viederman has since named these “pillars” ecological, economic, cultural, and social (see *Sustainability*), but since cultural and social relate to community and democracy, the latter terms are used in this model. Configuring these “pillars” into a model that resembles a “home” offers an understanding of the interconnectedness of the four concepts. The foundation upon which the “home” is built consists of two cornerstones: ecological integrity and democracy. The body and interior of the “home” is the sustainable community. The apex of the home’s roof (which shelters the home) is economic security, a state of being most humans desire to achieve. Thus, the model by this configuration suggests the relationship between these four components as a triangular-shaped “home.” (See Figure 1.)



Figure 1. Sustainable “Home” Model. The “Home” of Sustainability is the Community at all levels. The cornerstones of this “home of sustainability” are ecological integrity and democracy. The apex is the goal toward which communities strive, and that goal is economic security.

The concept of a sustainable “home” can apply at any level and in various realms (both physical and psychological). The “home” may be the shelter in which one lives or the “home” of the workplace. The “home” might be the town, city, or rural setting. The “home” may be the state or the region, nation, world, or universe. The “home” can also represent an area of interest (profession, hobby, etc.). In this model, the term “home,” therefore, encompasses both physical and psychological parameters of existence. The purpose of the model is to provide a visual conceptualization for communicating sustainability concepts.

This sustainability model can be compared to Maslow’s “hierarchy of needs” model. At the base of the triangle are conditions that must be met before other needs can be met. The conditions of ecological integrity and democracy are prerequisites for a community that is sustainable, and the sustainable community is a precursor to economic security.

3.1 Ecological Integrity and Democracy: The Foundation Cornerstones

Environmental sustainability is most likely to be established and maintained when individuals, communities, and societies conduct themselves based on a value system rooted in ecological integrity, and govern themselves by a system founded on democratic procedures.

Ecological integrity can be defined as an ethic: an ethic according to which people assign the highest value to life and living systems. In order to inculcate and embrace such a value, people must understand the basic life cycles and the planet’s physical systems that support life. With this understanding, people can then appreciate that the only way to ensure the continuance of life (as we know it) is to live in a way that respects and maintains nature’s life-supporting cycles and systems. Such respect and maintenance is necessary not only for the continuance of life, but also for the evolution of quality lifestyles for all humans.

Democratic systems of governance are founded on the principle that humans have the right to pursue quality lifestyles that include freedom, health, and happiness, and that people have the right to take part in decisions that affect their lives. Most, if not all, people will agree that they have the inherent right to pursue quality lifestyles. If people combine this belief with an environmental ethic that embraces ecological integrity, then the first step has been taken toward sustainability, because an ethical value system can lead to commitment, which can lead to appropriate action. Democracy is an essential component, because when people have a say and a stake in decisions that affect their lifestyles, they feel in control and empowered to strive for and achieve desirable lifestyles. (See *Communicating a Politics of Sustainable Development*.)

In order for people to have a say in decisions that affect their lifestyles, a democratic system must be representative and allow for active citizen deliberation. Communication of an interpersonal nature plays a critical role in effective deliberation as people meet to debate and discuss issues that affect their lives, health, and well-being. Communication via mass media is also vital to informing and educating wide audiences and in establishing both national and international sustainable development agendas. When the majority of people in a society (whether it be a community, country, or the world)

embrace ecological integrity along with a democratic system of decision-making and governance, then sustainable societies (and a sustainable world) are more likely to be established and maintained.

3.2 Community: The “Home” of Sustainability

Community can be defined from a variety of perspectives. Webster’s dictionary defines community as “a unified body of individuals,” as “people with common interests living in a particular area,” as “the area itself,” or as “an interacting population of various kinds of individuals in a common location.” A community can also be “a group linked by a common policy,” or “a body of persons or nations having a common history or common social, economic, and political interests,” or “society at large.” Thus, the community exists on many levels from collections of individuals to groupings by city, region, country, or coalitions of countries.

Community is the core of the concept of “home” at all physical and psychological levels. One can establish a sense of being “at home” with oneself via intrapersonal communication, which establishes identity of the self and which can be viewed as a precursor to rational thinking. However, the sharing of individual thoughts via democratic deliberation (interpersonal and group communication processes that are open and fair) precedes rational decision-making by collective individuals within any given democratic community. Rational decision-making is necessary for achieving environmental sustainability within a community of any size.

Individual communities (however defined) are the “seeds” from which roots grow to stabilize the whole. Democratic deliberation toward the goal of environmental sustainability should begin within communities for local issues, spread between larger communities for regional issues, and eventually link communities of all sizes with a global perspective.

Leading communication scholars have noted that peoples’ sense of community needs to be clear as they develop environmental sustainability policies through processes of democratic deliberation. It has been observed that “communities of place” are among the most essential for sustainable management of regional natural resources, because “members of communities of place possess local knowledge.” Local knowledge (also known as traditional knowledge) is derived from living in and experiencing a natural area over a significant period. As natural resource sociologist Robert Lee notes, “Long-term residents who have managed or worked the land are reservoirs of practical experience...” and “...these wise people are often precisely those who know most about how to implement sustainable practices.”

3.3 Economic Security: The Peak of Sustainability

Humans utilize resources in many ways to meet various objectives that maintain their livelihood, from the most basic level of survival, to increased levels of convenience and comfort that eventually lead to higher and more esoteric levels of existence. Whatever the level of livelihood, the goal toward which most people strive is security, both physical and economic. In terms of sustainable development, economics can offer a

framework for humans to analyze and determine the choices they make about the environment in which they live. The economics of the environment is therefore concerned with the way in which the environment contributes to human welfare in its broadest sense, either directly or indirectly.

The environment provides the context within which humans live: it provides living space and other amenities. Quality of life is very much determined by the quality of the environment in which people live. However, at a more basic level, the environment provides the raw materials that allow for all production processes: energy supplies, water, air, land, minerals, genetic resources, etc. The environment also provides ecosystem functions, which are, for the most part, cyclic systems, such as the oxygen/carbon dioxide cycle, the water cycles, the decomposition cycles, etc. Basing economic practices on concepts of environmental sustainability should therefore set standards for human decision-making and actions to promote wise use of resources. Because the economy is dependent on the environment for resources and waste assimilation, it follows that a good and sustainable environment should be able to better serve the needs of humans and support healthy economies.

The notion of a healthy environment promoting a healthy economy has proven true in many instances in the United States. In fact, empirical evidence from numerous recent studies has shown this to be fact. Evidence from the northeast region of the United States reveals that states with strong environmental regulations have strong economies. Likewise, states with lower pollution levels and better environmental policies generally have more jobs, better socioeconomic conditions, and are more attractive to new businesses. Furthermore, cities and regions that maintain clean air and an appealing aesthetic environment have a better chance of attracting people, including tourists, and generally have improved economic conditions.

These research findings are significant in revealing that environmental policies and practices that encourage sustainability can actually lead to long-term and sustained economic security. Of course, there are many problems to overcome (such as misguided subsidies and misguided tax policies), but many economists are optimistic that environmental and economic policy can coexist to promote both environmental sustainability and economic security. This is true not only for developed countries, but also for Third World countries. As Avijit Gupta has pointed out, “the improvement of the living conditions of the inhabitants of the Third World involves both economic growth and the ambient ecological conditions.” He states that “these two factors need not be in conflict, and development of a country implies improvement in both spheres.”

Critics might suggest that poverty is not conducive to environmental practices, but one has only to look at the efforts of Wangari Maathai in establishing the Green Belt Movement in Kenya to observe that environmental practices can actually alleviate poverty and offer increased economic security to residents of impoverished areas. Maathai is responsible for teaching people in Kenya’s agricultural communities to plant trees that grow fast and also produce food rather than continuing to denude forests for housing materials and fuel for cooking. The Green Belt Movement is allowing many people in Kenya to meet their basic needs and also enjoy improved lifestyles by engaging in sustainable agricultural practices. It is an example that can be taken to many

overpopulated and environmentally degraded regions of the world.

Critics may also suggest that policies and practices of major national and multinational corporations are impossible to change from a short-term profit mindset to long-term sustainability, but one only has to look at those companies making efforts towards environmental sustainability goals to realize that success in this endeavor is possible. Companies such as Interface, Inc., and IKEA, for example, have adopted The Natural Step as a guideline for sustainable policy and have actually reaped economic rewards as a result. (See *An Operational Model for Ecologically Sustainable Growth*.)

It is also encouraging to note that methods to achieve consensus on environmental sustainability through economic activities are currently being undertaken by various groups and organizations, such as The Natural Step, and through various worldwide conferences and coalitions, such as CERES (the Coalition for Environmentally Responsible Economies). Principles that can be adopted and implemented include The Natural Step's system conditions; sustainability criteria suggested by leading thinkers such as Herman Daly, Dana Meadows, Paul Hawken, and others; or the CERES Valdez principles. The bottom line is that viewing economics from an environmental sustainability perspective offers a path through which economic security can be realized.

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Biographical Sketch

Lea Jane Parker is an associate professor of communication in the School of Communication at Northern Arizona University (NAU) where she teaches environmental communication and journalism courses. She was responsible for establishing environmental communication courses and programs at NAU. Environmental communication is currently an emphasis area in the Journalism Program in NAU’s School of Communication and in the Environmental Sciences Program in NAU’s College of Arts and Sciences.

Affiliations include Parker’s role as a partnership leader for Second Nature, a non-profit organization dedicated to environmental education in colleges and universities. She is a member of the leadership team for The Ponderosa Project at NAU, an interdisciplinary faculty effort to introduce environmental sustainability issues across the curriculum at NAU, and she is a member of the outreach committee for NAU’s Center for Sustainable Environments.

Ms. Parker is the author of the books: *Environmental Communication: Messages, Media & Methods*, 1995 and 1997 editions, Kendall/Hunt Publishing Co. , and *EcoCulture: Environmental Messages in Music, Art, and Literature*, 2002, Kendall/Hunt Publishing Co. She is also the author of many scholarly articles, and she has published in *Journalism Quarterly*. A former journalist for more than 15 years, she has also authored hundreds of published newspaper articles, magazine articles, and photographs.

Degrees held by Parker include a Master of Arts in college education with an emphasis in journalism and public relations from Northern Arizona University, and a Bachelor of Arts in secondary education with an emphasis in biology and general science from Arizona State University. She has nearly 25 years of experience teaching at secondary, community, and higher education levels.

Current research interests and projects include environmental sustainability issues and the communication of environmental issues to audiences.

Ms. Parker is the author of the books: *Environmental Communication: Messages, Media & Methods*, 1995 and 1997 editions, Kendall/Hunt Publishing Co., and *EcoCulture: Environmental Messages in Music, Art, and Literature*, 2002, Kendall/Hunt Publishing Co.