

FORUM

The Meaning and Ethics of Sustainability

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ABSTRACT / Some have argued that the meaning of sustainability varies according to context, forcing us to be as explicit as possible when defining our terms. An argument is offered that disputes this conclusion by maintaining that it is not the

meaning of sustainability that changes with respect to context, but rather our understanding of the context itself. This is frequently apparent in contradictions that arise when conceiving each context in terms of sustainability. If this argument is correct, then we should be concerned not with the "meaning" of sustainability but rather the implications of sustainability as they affect the status quo. And in order to do this we must be prepared to answer the question: Why is sustainability desirable? This approach is illustrated through a preliminary conceptual and ethical analysis of ecologically sustainable development.

Sustainability, at least with respect to environmental concern, is a nascent concept that has stimulated an important body of work and reflection on various topics such as economic development, agricultural production, social equity, and biodiversity. This has resulted from a sense that certain activities constitute a threat to human well-being through the destruction of environmental integrity. An important problem that currently haunts some students of sustainability is in determining exactly what is meant by the term. Hence, if sustainability eludes definition, then how can it serve as a basis for formulating appropriate environmental policy? B. Brown and others (1987) ask:

Is [sustainability] rapidly becoming one of those transcendent terms, like "appropriate technology" or "environmental quality," which are cornerstones of environmental policy and research, but difficult to measure and rarely defined explicitly?

Concern over the elusiveness of sustainability's definition has also been expressed elsewhere. For example, Tisdell (1988) wonders why ecologists have not defined and measured sustainability more carefully since they consider it to be so important. He also noted that the World Conservation Strategy failed to define sustainability irrespective of the fact that sustainable development was seen to be an important goal (Tisdell, 1985b). The World Resources Institute and the International Institute for Environment and Development (1986) consider sustainability (at least in the form of sustainable development) to be a slippery concept—comfortable but ill-defined. Hopper (1987) admitted at a symposium sponsored by the World Bank entitled "Sustainability Issues in Agricultural Development," that he was not sure what sustainability meant. (This

begs the questions: what then were the issues, and how were they determined?) Is the meaning of sustainability really so unclear or diffuse that it requires explication?

The purpose of this article is threefold. First, I will attempt to show that it is not sustainability that requires definition or clarification, but rather its implications for any given context to which it is applied. Second, I will try to illuminate one such context as I outline a conceptual construct for understanding issues in ecologically sustainable development. Third, I hope to be able to indicate that an ethical perspective is fundamentally important when addressing questions of sustainability.

Meaning of Sustainability

B. Brown and others (1987) argued that the meaning of sustainability was strongly dependent upon the context in which it was applied and whether its use was based on an ecological, social, or economic perspective. In other words they argued that in addition to the different meanings of sustainability associated with the different contexts in which it is used (e.g., development, agriculture, biodiversity), sustainability could also vary in meaning depending upon the perspective taken within each given context (e.g., economic, social, ecological). The implications of their argument were that sustainability means different things to different people and that in order for us to achieve clarity of discussion, we must explicitly define our terms.

While discussing alternative perspectives on sustainability, B. Brown and others (1987) said that a social definition of the term represents "the continued satisfaction of basic human needs—food, water, shelter—as well as higher-level social and cultural ne-

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cessities such as security, freedom, education, employment, and recreation” (p. 716). Sustainability from an ecological perspective was defined as representing “the continued productivity and functioning of ecosystems” (p. 716). No definition of sustainability from an economic perspective was offered since it was determined to be “more elusive” (p. 716).

If these statements are representative of the ways in which sustainability can be defined, then at least two problems are evident. First, in both definitions the distinguishing characteristic is the ability to be continued. Whether referring to human needs or ecosystems, the basis for their being defined as sustainable is dependent upon their continuity in time. If it is true that “to continue” and “to sustain” are synonymous terms, then B. Brown and others are attempting to define sustainability with respect to itself. Second, if I were to observe a society that was continuously able to satisfy the needs of its population, or an ecosystem that was continuously able to be productive and functional, would I not be defining a specific example of sustainability (i.e., a sustainable society or ecosystem) and not sustainability itself? If so, then the term “sustainability” is being used to modify the context to which it is applied, with the consequence that the meaning of sustainability cannot vary from one context or perspective to the next without losing its meaning altogether.

On the assumption that these two problems are legitimate, then we are not only faced with the original question of how should “sustainability” be defined, but also with the question of its proper use. With respect to the latter, it is clear to me that “sustainability” is used as a modifier. Thus, when we speak of sustainable development, sustainable agriculture, sustainable ecosystems, sustainable societies, etc., we discriminate between unsustainable instances of these things, regardless of our particular perspective. What changes is not our conception of sustainability, but rather the way we come to understand development, agriculture, ecosystems, societies, or whatever.

What, then, is the meaning of sustainability? In order to address this question, I think that it is necessary to distinguish two “meanings.” The first meaning is lexical, or the kind of meaning that can be found in a dictionary. In this instance, if we are unsure as to how sustainability has been defined, we need only refer to the nearest acceptable dictionary and look it up. In fact, B. Brown and others (1987) did this very thing and quoted the definition that they had found in the *Oxford English Dictionary*. If this was the kind of meaning that they were seeking to clarify in their paper, then they certainly failed for the reasons mentioned previously (i.e., their “definitions” were self-ref-

erential and, most significantly, not really definitions at all but rather examples of sustainability). Surely there can be no debate concerning the lexical meaning of sustainability as it seems quite evident (i.e., “the capability of being maintained”—to paraphrase the *Oxford English Dictionary* definition quoted by B. Brown and others, p. 714).

The second meaning of sustainability is what I will call the implicative meaning. This kind of meaning refers to the significance of something. If someone were to speak in parables we would say that the words have implied meaning. Difficulty in interpretation results not from the terminology used, but rather the significance (perhaps hidden) of the message being conveyed. There is a message in the medium, so to speak, and it is the meaningful significance of this message that is of concern, not the terms themselves.

To illustrate, economic development can be defined as a process that sets as its goal the improvement of social well-being through the production and acquisition of economic goods and services. If we then introduce the term *sustainable economic development*, our understanding of economic development changes. We begin to realize a contradiction, as Redclift (1987) so aptly observed, because once we acknowledge that a particular style of economic development is unsustainable, we then acknowledge that certain attempts to improve social well-being can ultimately lead to just the opposite.

Just as “sustainable” modifies the term economic development in a grammatical sense as adjective to noun, it also modifies economic development in a conceptual sense through the implication of a contradiction. Sustainable economic development implies that the status quo is inconsistent with the facts: if economic development is allowed to be pursued in the same mode in which it is presently being pursued, then the result will be something other than development. The “message” of sustainability linked with economic development is that the ends and means of the current conception of economic development are incompatible. If that were not the case then the term sustainable economic development would be redundant. (Whether or not modern economic development really is contradictory is another question.)

Since the lexical meaning of sustainability is not at issue, we need only be concerned with what I am calling the implicative meaning. Thus, what is important is not sustainability per se, but rather its implications. It stands to reason, therefore, that the meaning of sustainability would vary according to context and perspective as B. Brown and others (1987) assert, provided that it is understood that what we are referring

to is the implicative meaning, since each context or perspective will be composed of different conditions and thus different implications.

Yet I find this approach to determining the meanings of sustainability to be less than satisfying. Why must we determine what we mean by meaning in order to discuss the meaning of sustainability? I fear that this argument is beginning to take on the characteristics of *Euthyphro*, in which the title's namesake is pressed to define "piety" before Socrates. There must be a simpler approach.

In consideration of what I have said up to now, it is my thesis in this article that the meaning of sustainability is far from ambiguous. It has been consistently used, either explicitly or implicitly, to mean "a continuity through time" and that any resultant ambiguities are not with respect to the concept of sustainability itself, but rather with respect to the implications of sustainability when it is applied to any given context. If there is any ambiguity in the meaning of sustainability, then it is a matter of degree and not of kind. For example, a principal question to emerge is the temporal magnitude of sustainability. That is to say, how long must something exist before we consider it to have been sustained? But this temporal ambiguity does not in any way alter the primary meaning of sustainability itself, because it still serves as a mark of continuity, irrespective of the contingent circumstances of its duration.

O'Riordan (1988) has stated that the concept of sustainability is deliberately kept ambiguous by vested interests in order to justify environmentally sensitive programs. Although I am sympathetic to his argument that sustainability has become politicized, I do not agree with his contention that it is inherently ambiguous and therefore subject to abuse. If the term is ambiguous, it is not because it is inherently so, but rather because it has been allowed to become that way, for whatever reason(s). However, this need not curtail environmentalists from redirecting the debate on development planning and process from questions of sustainability to questions *implied by* sustainability.

In the final analysis, I assert that the meaning of sustainability should not be an item for further discussion. What should be discussed are the implications of sustainability that result when it is applied as a modifier to a particular context. In other words, what are the consequences that result from seeking a sustainable society, a sustainable economic arrangement, or a sustainable ecosystem, and how are they constituted? What contradictions, if any, become apparent within each of these contexts when sustainability is sought as a goal?

These questions point to a need to define the conceptual framework surrounding sustainability (not sustainability itself) so that we might achieve a greater understanding of the issues involved. If, for example, it is our goal to live in a sustainable society, then we should seek to identify as clearly as possible not only our notion of what constitutes a sustainable society, but also the means necessary to bring a sustainable society to fruition. In what follows, I would like to illustrate this process by outlining a conceptual framework for understanding the issues pertaining to ecologically sustainable development.

Conceptual Outline for Understanding Ecologically Sustainable Development

Although I believe that B. Brown and others (1987) made an error in stating that the meaning of sustainability depended upon both the context and perspective in which sustainability was used, they did identify some of the various perspectives from which sustainability can be viewed. In their article they distinguished three general perspectives: (1) social, (2) ecological, and (3) economic. With respect to the context of ecologically sustainable development, I have used these same three general perspectives and have attempted to relate them to each other (Figure 1).

Note that I have included an additional ethical perspective that encompasses the others. As described here, the ethical perspective should not be considered separate or distinct. The underlying assumption within ecologically sustainable development is that sustainability is desirable, that it is something we ought to pursue. Each perspective thus is developed from the standpoint that ecological sustainability is a "good" to which means should be directed.

As indicated in Figure 1, I have also tried to distinguish the ecological perspective from the others. This is necessary because the ecological perspective is concerned with those processes that make development possible (i.e., life support, energetics, material cycling, primary and secondary productivity, etc.). As Sunkel (1980) puts it, "the biosphere conditions the possibilities for development" (p. 18). Accordingly, the ecological perspective represents a scientifically oriented outlook that seeks to sustain the conditions that make development possible. The other two perspectives, on the other hand, can be seen to draw upon the ecological perspective for guidance as they attempt to develop strategies necessary to meet the requirements of ecologically sustainable development.

Tisdell (1985a) noted that mainstream economists have more or less ignored the relationship between the

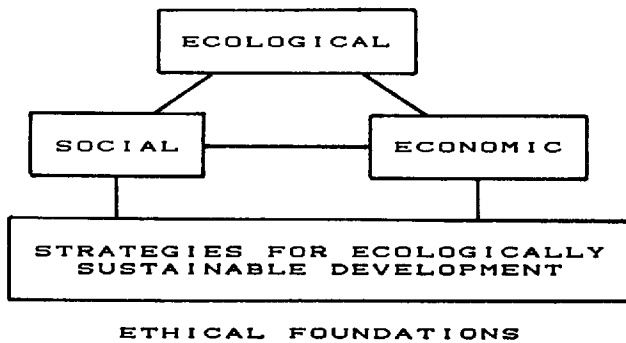


Figure 1. Relationship of perspectives addressing ecologically sustainable development.

environment and development. The economic perspective within ecologically sustainable development seeks to remedy this oversight by acknowledging that environmental questions are pertinent for economics. This is indicated by studies in cost-benefit analysis (Hufschmidt and others 1983), marginal opportunity cost (Pearce and Markandya 1987), steady-state economics (Daly 1988), ecoginomics (Carpenter and Dixon 1985), safe minimum standard analysis (Lee 1986), and development styles (Sunkel 1980, 1987). Each of these analyses or points of view represent efforts to modify the modern neoclassical approach to economic development into an ecologically sustainable framework.

The recognition that the environment is a legitimate concern for economists may conceal as much as it reveals, however. Norgaard (1984), Perrings (1987), and Redclift (1988), for example, question the axiomatic structure of the dominant economic paradigm itself, and thus seek to fundamentally change economic models. Turner (1988a) characterizes this radical approach to environmental economics as the "sustainable development mode." He distinguishes this from the more conventional "sustainable growth mode," which considers economic growth to be an appropriate model provided that it does not come at the expense of natural resource conservation. Thus, within environmental economics we can find two different approaches to revise neoclassical economic models; one being more revisionist than the other.

Caldwell (1984) remarked that conservation and development were once thought to be necessarily conflicting activities. I think that the predominant thrust of the social perspective is to prove that conservation and development need not be in perpetual conflict, but can, and perhaps must, be coexistent. The World Commission on Environment and Development (1987) and Jacobs and Munro (1987) both discussed at length the links they perceive to exist between poverty, inequality, and environmental degradation. Eckholm

(1979), Fortmann and Bruce (1988), and Korten (1986) have associated successful conservation with secure control over land and natural resources. Links have also been made to the meeting of basic human needs such as food, clothing, and shelter (Aga Khan 1986, L. Brown and Wolf 1988, Dasmann 1984, Tanglely 1988a, World Commission on Environment and Development 1987), and the importance of grassroots participation (Allen 1988, Cohn 1988, Dasmann 1988, Jacobs and Munro 1987, Tanglely 1988b) in achieving conservation. The question that seems to be emerging is not whether we are able to achieve a balance between conservation and development, but whether we are able to have one without the other?

The World Commission on Environment and Development (1987) summed things up very well and in a manner that incorporates the various perspectives as they search to integrate development with conservation. The commission said that the pursuit of sustainable development required:

- A political system that secures effective citizen participation in decision making,
- An economic system that is able to generate surpluses and technical knowledge on a self-reliant and sustained basis
- A social system that provides for solutions for the tensions arising from disharmonious development
- A production system that respects the obligation to preserve the ecological base for development
- A technological system that can search continuously for new solutions
- An international system that fosters sustainable patterns of trade and finance
- An administrative system that is flexible and has the capacity for self-correction.

However, unless we are prepared to tackle the questions of why and under what circumstances sustainability is desirable, then the above discussion really does not amount to very much. If we have an important goal in mind that we choose to act on, then it stands to reason that there must be some motivating factor urging us in that direction rather than another. Given that sustainability is a value-laden concept, then it becomes important to morally justify our motivations and desires. In the sections that follow, I will pursue the question of the desirability and justification of sustainability in more detail.

The Ethical Perspective

Two general categories of ethical reflection that have a bearing on the nature of ecologically sustain-

able development are anthropocentrism and non-anthropocentrism. Anthropocentrism represents the traditional format of ethical inquiry—human interest or well-being. Nonanthropocentrism, on the other hand, shifts the emphasis from strict consideration of human interests to the recognition of the importance of nonhuman interests as well. An anthropocentric perspective seeks such things as a sustainable society, sustainable food production, and sustainable economic development, all in relation to human welfare. In contrast to the nonanthropocentric perspective, if concern is expressed over the impact of human activity on the environment, it is not because there is a sense that the environment, in and of itself, can be wronged. Instead, the concern is that the environmental impact represents a potential threat to future human viability and therefore involves a question of the moral responsibility of people with respect to other people.

Since nonanthropocentrism does not necessarily consider the welfare of people to be primarily important, reasons for achieving a sustainable form of development would just as likely be argued in terms of the well-being of other forms of life or objects of natural beauty. Leopold (1966) said “A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise” (p. 262). If this holistic viewpoint is taken literally, then the sustainability of the “biotic community” (i.e., the biosphere or an ecosystem) becomes most significant, with humanity being important only to the degree that it contributes to the preservation of the biotic community as a whole. In this instance, concern over certain environmental impacts will therefore involve a question of the moral responsibility of people with respect to the environment, and not with respect to other people.

The recent rise of nonanthropocentrism appears to result from the sense that anthropocentrism is at the root of our current environmental problems (Ehrenfeld 1976, Sessions 1987). There is the common perception that anthropocentrism is inherently “unecological” (see, for example, Sessions 1987, or Rolston 1988) and thus threatens the stability of life on this planet. Nonanthropocentrists commonly ask the question posed by McLaughlin (1986): “Are the interests of human beings the principal or sole criterion for judging our relations to the nonhuman world?” (p. 7). For nonanthropocentrists, if this question cannot be answered positively, then anthropocentrism may be seen as unjustifiable.

Naess (1986) says that to argue from an anthropocentric framework is indecent because it does not represent a “genuine ethics of conservation.” He believes that talk of sustainability must also take into consider-

ation the sustainability of other forms of life without regard to their value for humans. Naess further argues that anthropocentric based conservation is “shallow” because it completely lacks a guiding philosophical or religious foundation.

An interesting aspect of nonanthropocentrism is that its justification is characteristically developed in terms that remain conceptually elusive (Sober 1986). Defenders of biocentrism, for example, argue that various beings or entities, from individual organisms to the biosphere, have intrinsic value. In other words, they argue that value exists in the world which is independent of human reference. The problem for such arguments has to do with the fact that no one has yet been able to justify rationally the existence of intrinsic value. Yet some think that the problem of rationally justifying nonanthropocentric arguments is more vice than virtue. Sessions (1987) makes clear that to call “deep ecology” a rational ethical theory is to misunderstand its intuitionist base. He further implies that rationalism is a product of anthropocentrism and therefore a part of the problem.

The difficulty in justifying the nonanthropocentric perspective is probably the most serious obstacle facing its acceptance within the paradigm of sustainable development. Some consider nonanthropocentrism to be unrealistic (Tisdell 1985b) or too abstract (Chisholm 1988). Turner (1988b) calls it “diffuse and impractical.” Turner also perceives in nonanthropocentrism the potential for sanctifying nature and of separating environmental policy from questions of human rights and social justice. This is echoed by Aga Khan (1986), who considers the nonanthropocentric viewpoint to be “narrow” in that it fails to distinguish the people, whose livelihoods depend upon natural resources, from trees.

Without doubt, the anthropocentric perspective dominates the paradigm of sustainable development. Perhaps this is because nonanthropocentrism does not always seem to offer a framework from which to address development issues, opting instead to uphold the moral claims of nonhuman entities. This is obviously the case for Taylor (1986) who, through his advancement of biotic egalitarianism, questions the moral justification for human existence. Such an attitude is bound to offend the sensibilities of those who seek the betterment of human life through the exploitation of natural resources. It also may be that it is easier for people to understand the significance of conservation or preservation when such actions are connected with human welfare. It may be more difficult if appeals are made on the basis of an elusive value structure external to human needs. Although it may be possible to develop an approach to sustainability that is non-

anthropocentric, it would, at present at least, have to rest on intuitive appeal.

Thus, we can ascertain that these two general ethical perspectives would consider sustainability within the context of ecologically sustainable development to be desirable for two very different reasons. The non-anthropocentrist would argue that sustainability is desirable because we have an ethical relationship with the environment (or portions thereof), with duties and obligations owed to various entities in consideration of their being part of an extended moral community. In contrast, the anthropocentrist would argue that sustainability is desirable because it is necessary to meet our needs and to fulfill our moral obligations and duties to each other. Obviously, the justification of the latter approach is on much firmer footing than is the former.

Environment and Development

Since the nonanthropocentric value structure lacks rational support, and considering that it has yet to make itself known with any level of significance within the sustainable development debate, I think that I am justified in laying it aside for the remainder of this article. Furthermore, although a nonanthropocentric perspective may provide a sufficient condition for sustainability, it does not make for a necessary condition (Turner 1988a, see also Norton 1987, with respect to species preservation). It may be the case that sometime in the future it will have a much greater role to play. Should that happen, it then would be necessary to pay close attention to these ideas since they would represent such a significant departure from traditional practice. But in the meantime, I should like to begin pursuing questions surrounding economic development strictly from the point of view of human interests and well-being.

As mentioned previously, economic development can be defined as a process that seeks to acquire the goods and services necessary to live well. Although different approaches for the realization of this general goal have been deliberated, conventional approaches to development have been set in terms of economic growth. A consequence of this is that development has become equated with increases in per capita income or in gross national product. As such, development planning is designed to create the conditions necessary whereby economic growth can take place and, presumably, to improve living standards.

Sen (1984a,b) has argued that economic growth, in and of itself, is insufficient for the purposes of development. According to Sen, if we want to raise people's standard of living, then we must concentrate on enhancing their capabilities to acquire the goods and ser-

vices they need in order to live well. He believes that it is not enough simply to increase some aggregate level of economic growth, since economic growth is no more than a means to achieve some of the objectives of economic development. As he says:

Ultimately, the process of economic development has to be concerned with what people can or cannot do, e.g., whether they can live long, escape avoidable morbidity, be well nourished, be able to read and write and communicate, take part in literary and scientific pursuits, and so forth. It has to do, in Marx's words, with replacing the domination of circumstances and chance over individuals by the domination of individuals over chance and circumstances [Sen, 1984a, p. 497].

If Sen is right, then contemporary development schemes are being pursued in a mode that does not directly address the primary goal of development—human well-being. This same basic conclusion has also been reached by the World Commission on Environment and Development in their book *Our Common Future*, and in the proceedings published by the International Union for the Conservation of Nature and Natural Resources (IUCN) entitled *Conservation with Equity*. Although neither book can be said to be concerned with the ends of development per se, both imply that the present mode of economic development is inconsistent with respect to means and ends. Thus, these two books bring to light the contradiction referred to earlier by implying that the general goal of development (i.e., a better life for human beings) is being pursued in a manner that may actually result in human suffering.

All of this is not to say that economic growth is without merit. Certainly there exist situations in which economic growth is critical to economic development, especially in many Third World countries. The only caveat is that if economic growth is needed to realize development, it should be of the sustainable growth mode as described by Turner (1988a) and thus not result in the depletion of capital or environmental assets. The point is simply that economic growth and economic development are not necessarily synonymous.

This conclusion has important consequences for Third World development assistance. With the recognition that certain styles of development may be self-defeating, and that economic growth may be but one component in an overall development program, it becomes necessary to consider what kind of development assistance is appropriate for a given country or region. This may not make development assistance planning any easier, but it is hoped it would make it more realistic.

Of the various potentially differing approaches that could be taken, one would be to follow Sunkel's lead by arguing that the right kind of development assis-

tance is the kind most appropriate to the development style devised by the country receiving assistance. Put another way, it may not be fitting to engage in one particular transnational development policy that ignores the variety of experiences that can be said to constitute development. Other countries may not conceive of development strictly in terms of economic growth and may seek instead more direct and qualitative measures such as assuring their citizens access to health care facilities, food, and education. Therefore, the kind of development assistance would be determined by the needs of the developing country as defined by that country.

Whatever the approach, the achievement of an ecologically sustainable form of development can be interpreted as a process that seeks to make manifest a higher standard of living (however interpreted) for human beings by enhancing their capabilities to live well, and that recognizes this cannot be achieved at the expense of environmental integrity. Strategies for achieving an ecologically sustainable mode of development would undoubtedly vary according to country or region, as each would face somewhat different conditions and perhaps even different conceptions of developmental goals. The underlying characteristic of all such strategies, however, is that development is ethically good; it is a value-laden process seeking to make life better than it is at present.

Ultimately, the desirability of ecologically sustainable development hinges upon the desirability of development itself. If the process of development is important to us only in so far as we achieve a certain level of prosperity at any given moment in time, then sustaining the conditions of development can be of little value. On the other hand, if seeking to live well is fundamentally important to us not only throughout our lives but throughout the lives of future generations, then engaging in a mode of development that is anything less than ecologically sustainable would be not only contradictory but immoral.

Conclusion

If it is true that sustainability is a concept in search of a framework instead of a definition, then the course ahead is less diffuse. For instead of trying to come to terms with some ambiguous meaning of sustainability as it is set in various and conceptually distinct contexts, our task becomes one of ascertaining the implications of a commonly understood notion of sustainability as applied to these various contexts. Although establishing these implications is no mean feat, at least the inquiry has been directed toward the issues in sustainability and away from the concept itself.

The task then, as I see it, is to begin developing a conceptual framework for addressing issues in sustainability in order to understand and appreciate what would be involved in cultivating and initiating appropriate environmental planning and policy. I wish to underscore that this cannot be accomplished unless we are willing to address the big questions that underlie our concept of sustainability. Consequently, if we wish to achieve some sort of consensus on environmental or development policy that is ecologically sustainable, then we should be prepared to tackle, at least in general, such questions as: Why is sustainability desirable? What form of sustainability is best? With what means should we seek to achieve sustainability? These questions are necessary because sustainability is more than an issue in managing our environment; it is also an issue in managing ourselves.

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