

# Sustainable Sufficiency – an Internally Consistent Version of Sustainability

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## ABSTRACT

Sustainable development has achieved widespread acceptance throughout the world as an appropriate goal for humankind. Applying the concept at both government and corporate levels has proved difficult due in part to an inherent conflict between the ecological, social and economic dimensions contained within contemporary interpretations of sustainable development. This paper describes a version of sustainability that provides clear and unambiguous direction for decision makers. Replacing the typically Western neoclassical economic perspective contained within most interpretations of sustainable development with a Buddhist perspective of economics leads to an internally consistent version of sustainability referred to as *sustainable sufficiency*. A study of a decision process within an organization operating within a sustainable development framework is used to provide contrast with decision making within a sustainable sufficiency framework. A conclusion of this paper is that the sustainable sufficiency concept reinforces the view that neoclassical economic principles provide a barrier to achieving the social and ecological objectives contained within contemporary interpretations of sustainable development. Copyright © 2005 John Wiley & Sons, Ltd and ERP Environment.

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## The Evolving Concept of Sustainable Development

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**A**LTHOUGH APPLICATIONS OF SUSTAINABLE DEVELOPMENT ARE REPORTED AS FAR BACK AS THE 18TH century in agriculture, and the 19th century in forestry (Kula, 1994), the publication of *Our Common Future* (WCED, 1987) is credited with elevating the concept to the forefront of issues relevant to an increasingly global society. International recognition is evidenced in the endorsement of Agenda 21 (United Nations, 1992) by 171 national government delegations declaring their commitment to sustainable development, which has become the dominant global expression of ecological concern (Dryzek, 1997). Despite widespread recognition and acceptance of sustainable development as an appropriate goal for humankind, application of the concept has proved difficult (Dryzek, 1997).

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A continuing and evolving theme is the conception of sustainable development as a synthesis of ecological, social and economic objectives (WCED, 1987; Daly, 1990; Gladwin *et al.*, 1995; Van den Bergh, 1996; Westing, 1996; Frankel, 1998; Yencken and Wilkinson, 2000). A critical aspect of this definition is mutual dependence of the ecological, social and economic dimensions. Despite the appeal of the three dimensional definition of sustainable development, many applications of the sustainable development concept prioritize economic considerations over social and ecological concerns (Rogers, 2000), resulting in sustainable development remaining a predominantly *economic* concept. This prioritization is predominantly cultural, given the Western emphasis on financial returns and economic growth to appease a wealth accumulating and consumer oriented society (Sivaraksa, 2000). Within the environmental movement, the sustainable development concept is seen as a smokescreen for corporate interests to continue with business as usual (Worster, 1995), a view supported by the sluggishness of business to respond positively to the challenge of sustainability (Beder, 1997).

Undoubtedly, there are many benefits resulting from the widespread debate and application of the sustainable development concept. This includes the recognition of ethical aspects of humankind's impact on the natural environment with respect to the rights of future generations (intergenerational equity), the distribution of wealth within the current generation (intragenerational equity) and to a much lesser extent the rights of other species (interspecies equity). Furthermore, there is widespread recognition of the negative aspects of industrial activity driven by the excessive consumption of an expanding population (Carley and Christie, 2000), and the vicious cycle of poverty with its direct link to ecological destruction (Barrett, 1996).

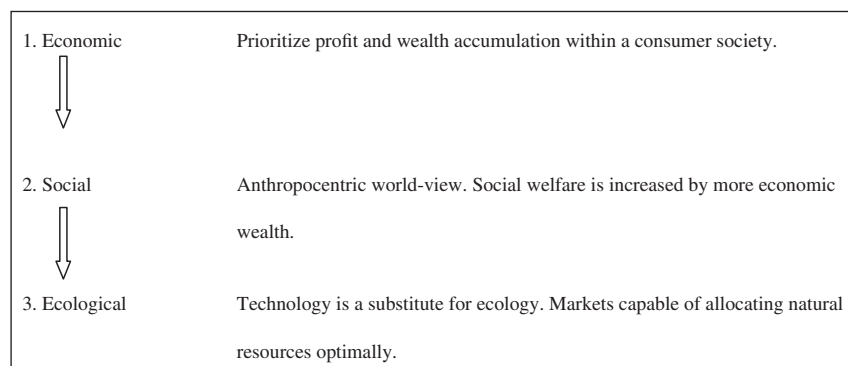
Regardless of these sporadic benefits, destruction of the natural environment accelerates, fuelling production of goods to meet the needs of an expanding global population. Government endorsement of sustainable development even at an international level is insufficient to stop ecological destruction and the social evils of widespread poverty, violence and crime that continue to afflict humankind.

In the context of the widespread failure of the sustainable development paradigm to change humankind's impact on the natural environment, this paper looks outside the conventional neoclassical paradigm, seeking inspiration from a Buddhist cultural perspective, as have other researchers (for example see Pryor, 1990; Starkey and Welford, 2001; Jenkins, 2002). This view of sustainability (referred to as *sustainable sufficiency*) reveals a concept containing social and ecological objectives that are consistent with economic objectives built on Buddhist principles, rather than the mutually conflicting set of objectives that are contained in most contemporary definitions of sustainable development. This alternative view of sustainability is explored from an economic decision making perspective, providing contrast between potentially sustainable and unsustainable sets of decision outcomes. The inherent conflict between competing objectives contained in accepted definitions of sustainable development is discussed in the next section.

### Conflict between Objectives of Sustainable Development

A major problem with the application of sustainable development is its failure to offer decision makers clear direction, as the concept consists of objectives that are not always internally consistent (Redclift, 1987). When options available offer clear win-win outcomes in terms of, for example, expected economic and environmental impacts, the path for decision makers is clear. Numerous examples of win-win outcomes are provided in the literature (Elkington, 1994) and this is very much the thrust of the corporate environmental management movement (Hawken *et al.*, 2000).

However, in many cases ecologically sustainable outcomes can only be achieved at the expense of reduced economic performance (Bellamy Foster, 2000). For example, there is an urgent need for industry to switch to renewable and non-polluting sources of energy given the level of air pollution caused by



**Figure 1.** Weak form sustainable development hierarchy

the combustion of fossil fuels (United Nations Environment Programme, 1999; Brown and Flavin, 1999). Industry, prioritizing economic outcomes, continues to resist change to renewable and clean sources of energy, preferring to consume low economic cost (although high environmental and social cost) non-renewable fossil fuel energy resources. Similarly, social and ecological objectives can conflict. For example, the protection of biodiversity in the United States requires a large proportion of land to be returned to wilderness (Anonymous, 1993), requiring the relocation of human settlements.

Where there is internal conflict within the three dimensions of sustainable development, decision makers typically prioritize economic objectives, allowing negative social and/or environmental impacts to be *bought out* by positive economic outcomes. Given the competing dimensions contained within the sustainable development concept, the transition to sustainability is necessarily a political process requiring continuing debate and mediation between competing stakeholder groups, requiring compromise of both goals and values (Carley and Christie, 2000).

Misuse of the sustainable development concept is aided by its inherent vagueness and multitude of definitions. Without agreement as to which specific needs must be sustained, the temptation for confusion between *need* and *desire* is inescapable (Costanza *et al.*, 1997). Stead and Stead (1996) question whether the multidimensional nature of the sustainable development concept will inevitably lead to its demise given that there is no clear view as to precisely *how* humankind can make the transition to sustainability, and this will never be knowable, except in retrospect.

A weak form interpretation of sustainable development together with the dominant beliefs underpinning each stage of the hierarchy is depicted in Figure 1.

Sustainable development is operationalized as an economic objective that aims to minimize negative social and environmental impacts. This is not the outcome many proponents of sustainable development expected, given a vision for the preservation of the natural environment, improved social welfare and the elimination of poverty. In the next section of this paper, the concept of *Buddhist* economics is explored, following a brief introduction to the principles of Buddhism.

## Sustainable Economics

Evidence of environmental destruction and widespread social inequity has led to the questioning of the sustainability of Western economic systems (Costanza and Daly, 1992; Barrett, 1996; Yencken and Wilkinson, 2000). Excessive consumption caused by consumerism, which is *the dominant ethic in the*

*world today* (Sivaraksa, 2000, p. 178), and the resulting negative environmental and social impacts, creates a need for a non-destructive form of economics. Possible responses to this need range from changing the technical process of (economic) decision making to changing the values that underpin those decisions.

An example of changing the decision process is when decision makers respond to data informing them of the social and environmental impacts of economic activity, removing the bias toward economic goals. This is very much the approach underlying current attempts to implement the sustainable development concept reliant on the capture of data that accurately reflects social and environmental impacts. Examples include attempts to value environmental resources and social impacts (Milne, 1991; Bingham *et al.*, 1995) and environmental accounting at both the macro- and micro-levels (El Serafy and Lutz, 1989; Gray, 1993).

Once data is assembled the critical issue pertaining to decision making is the prioritization of the competing objectives contained within the dominant interpretation of sustainable development. Rejection of the continued placement of economic outcomes at the top of the objective hierarchy leads to an alternative approach, which is to redesign the economic system based on an alternative value system. The dominant value system is a central issue in the application of sustainable development.

Disputes over the meaning of sustainable development are essentially about the values that underpin the decision making processes . . . (Carley and Christie, 2000, p. 63).

This latter approach of seeking an alternative value system is adopted in this paper, given problems with the implementation of, and the inherent inconsistency between competing components of, sustainable development. The alternative value system utilized in this paper is based on the principles of Buddhism, which provide the foundation for establishing an internally consistent version of sustainability.

## A Brief Introduction to the Principles of Buddhism

Buddhist tradition is founded upon the teaching of *Siddhartha Gautama*, who, according to earliest Buddhist scripture, became disenchanted with his relatively affluent life, and embarked on a spiritual journey ending in a profound experience that led to his awakening as a *Buddha* (Gethin, 1998). This awakening concerned *Gautama's* recognition of the *Four Noble Truths*, which concern the *truth* of the nature of

- (i) human suffering
- (ii) the cause of suffering, being selfish desire
- (iii) the cessation of suffering, requiring the removal of desire
- (iv) the path for attaining liberation from suffering (Harvey, 2000).

*Gautama* devoted the remainder of his life to teaching the *Four Noble Truths*, considered by Buddhists to be *actualities* or *realities*, rather than propositions that require intellectual agreement, providing a lens for aspiring Buddhists to see the world as it actually is (Gethin, 1998). The *Fourth Noble Truth*, the process of attaining liberation from suffering, is expressed as the *Noble Eightfold Path* (Novick, 1999). The *Four Noble Truths* and the *Noble Eightfold Path* provide the basic foundations for Buddhist practice.

Stages 1 to 5 of the *Noble Eightfold Path* concern (1) right view (seeing the *Four Noble Truths*), (2) right intention (channelling emotions toward peace, lovingkindness and compassion), (3) right speech (abstaining from lying, gossip and divisive speech), (4) right action and (5) right livelihood.

In this context *right* refers to the quality in its most perfect form (Humphreys, 1962). *Right action* is therefore interpreted as actions of the purest quality and includes the need to avoid harming oneself

and others. Specific actions to refrain from are expressed as moral guidelines, referred to as *lay precepts*. The first three precepts that provide a path to right action (Novick, 1999; Harvey, 2000) are to avoid taking the life of any living thing, avoid taking things not given and avoid sensual misconduct, which includes overindulgence and sexual excess.

Stage 5 of the *Noble Eightfold Path*, right livelihood, requires that one's livelihood is not dishonest, based on greed or the cause of suffering to others. Stages 6 to 8 are (6) right effort, (7) right mindfulness and (8) right concentration, and concern cultivation of the heart and mind achieved through meditative practice (Harvey, 2000).

In the next section the Buddhist concept of *right livelihood* is applied to the study of economics, leading to an alternative perspective of sustainability.

### Buddhist Economics

In a classic essay E. F. Schumacher (1973) identifies *right livelihood* as the goal of Buddhist economics.

... Schumacher maintains that the goal of economic life should be "Right Livelihood". That is the economy must be designed to provide all members of society with a sufficiency of material well-being through livelihoods that are inherently satisfying, that do not harm others materially or spiritually, that involve the individual in service to his community, and therefore contributes to the purification of character ... (Ophuls, 2000, p. 369).

Inoue (1997) identifies three aspects of Buddhist economics critical to achieving *right livelihood*. According to Inoue Buddhist economics is an economics

- (i) that benefits oneself and others
- (ii) of tolerance and peace
- (iii) that can save the earth.

Inoue states that in a Buddhist economy transactions are *mutually beneficial*, enhancing the quality of life of the parties involved. Religious tolerance, removal of poverty throughout society, recognition of animal rights and demilitarization provide evidence of a tolerant and peaceful society. Domination of the earth by *man* is rejected in favour of peaceful coexistence with living creatures, placing the earth rather than self-interest at the centre of humankind's worldview.

The holistic nature of Buddhist economics is described by Mendis.

In the view of a Buddhist economist, mainstream fails to address the social ills (violence and crime), as well as the degradation of the environment, whereas Buddhist economics internalises the overall sustainability of economic, ecological, ethical and spiritual aspects of human progress. For a Buddhist economist, economic behavior is a part of the totality of human behavior; therefore the well-being of humans and the environment should be considered within a larger framework of moral and ethical values (Mendis, 1993, p. 16).

Mendis's holistic perspective of economic decisions as social and environmental decisions recognizes that it is inappropriate to consider only economic information or economic objectives when making business decisions. In fact, the failure by business decision makers to consider social and environmental issues is equivalent to a moral stance that these issues do not matter, which is ethically indefensible (Gray *et al.*, 1996).

### Schumacher's Five Principles of Buddhist Economics

According to Schumacher (1973), five key principles of Buddhist economics pertain to work, consumption, simplicity, non-violence and natural resources.

- (i) *Work*. From a Buddhist perspective, work is seen to have three critical functions:

... to give man a chance to utilise and develop his faculties; to enable him to overcome his ego-centredness by joining with others in a common task; and to bring forth the goods and services needed (Schumacher, 1973, p. 54).

In a Buddhist economy work is designed to provide social benefits, utilizing teamwork and contributing to the building of human character by providing work *in conditions of human dignity and freedom* (Schumacher, 1973, p. 55).

The Buddhist perspective that the function of work goes beyond economic needs finds parallel with modern psychological research, which recognizes that work should meet not only the needs of the individual, but also broader needs of the community and society at large. Meaning is provided by work that is challenging, takes place within a constructive learning environment, enables employees to exercise a degree of decision making, and supports and is relevant to the worker's social life, meeting community, family and social needs (Benveniste, 2000, p. 104).

From the employee's point of view work is something to do to acquire goods for consumption and to accumulate wealth. It is an alternative to leisure. Work design in Buddhist economics meeting the psychological needs of workers breaks down this distinction between work and leisure, as jobs are redesigned to meet employee's social and economic needs. A Western managerial perspective of work emphasizes the need to reduce labour costs, often using technology to replace workers. Designing an economy for full employment is critical in a Buddhist economy, given the essential character building function of work.

- (ii) *Consumption*. The Western perspective of consumption is that *more is better*, driven by the belief that consuming more economic goods increases welfare. Given that growth in consumption cannot continue indefinitely (Costanza and Daly, 1992), an appropriate level of consumption in a Buddhist economy facilitates the equitable allocation of resources between the industrial world and the developing world.

Buddhism distinguishes human welfare from material greed. In a Buddhist economy an optimal level of consumption is where a *high degree of human satisfaction* [is obtained] *by means of a relatively low rate of consumption* (Schumacher, 1973, p. 58), rejecting the modern world-view that happiness depends on abundance (Payutto, 2000). Production of essential goods for local consumption is prioritized, rather than products where demand is driven by creative marketing campaigns (Durning, 1998) or consumers located in foreign markets. This is far removed from the Western culture of *consumerism* that encourages material abundance at unsustainable levels (Carley and Christie, 2000).

- (iii) *Simplicity*. A third principle of Buddhist economics is the need for simplicity of design of goods and services, consistent with the objective of minimal consumption, where desired product qualities are functionality and durability. Complex product design where simpler products would suffice is viewed as unnecessary and driven by greed and indulgence. Simplicity also requires meeting local needs using local resources, reducing pressure placed on the ecology by global transport systems. Importation of exotic goods is considered unnecessary unless required to meet essential needs.
- (iv) *Non-violence*. Central to Buddhist philosophy is the principle of non-violence toward humankind, other species and the natural environment. Exploitation of animals to meet market demand, and



the extinction of species from the continued expansion of humankind and its economy, are examples of human behaviour contrary to the non-violence principle, unjustifiable on (Buddhist) economic grounds. Recognition of the rights of animals and non-sentient nature requires a widespread change in human morality.

A central Buddhist teaching is that the mind directs the body in action (De Silva, 1990), and the mind must be cleansed of greed to achieve right action. Pollution of the environment represents an act of violence against the earth, which, according to Buddhist thought, results from pollution of the human mind. Buddhism identifies greed, hatred and delusion as the root causes of human suffering.

The violent and aggressive approach to the natural world is fed by greed for short-term material gain without care for the long-term effects on other generations (De Silva, 1990, p. 14).

Greed is expressed through continuing expansion and possessiveness, hatred is expressed through *a destructive and violent attitude toward oneself, others and the natural world* (De Silva, 1990, p. 17), whilst delusion is evident in consumer patterns of consumption fuelled by unending cycles of desire for more of the latest products.

- (v) *Natural resource conservation.* Buddhism takes a holistic view of humans as one species amongst many living in the earth, recognizing humankind's intimacy with, dependency on and connection to nature. Deterioration of ecological health is perceived as a root cause of the deterioration in human health (Shearman and Sauer-Thompson, 1997; Steingraber, 2000). Buddhism recognizes a deterioration in spiritual and mental health evidenced by greed, hatred and delusion manifesting as violence against the natural environment. De Silva links the principle of non-violence and inner peace to a Buddhist environmental ethic that involves a

... contemplative attitude by which we discern in nature our own vision of peace and tranquility (De Silva, 1990, p. 15),

emphasizing the need for a change to a non-violent and gentle attitude toward the environment.

Buddhist economics rejects the tenet of frontier economics that natural resources are abundant or free. Rules for the consumption of renewable resources are distinguished from those applying to the consumption of non-renewable resources. Minimal consumption of products of simple design enables the sustainable use of renewable resources within bounded population levels. Non-renewable resources are to be conserved meticulously and only used to satisfy essential needs. Extravagant consumption and exploitation of natural resources is viewed as an act of violence (Schumacher, 1973).

A comparison of Buddhist principles with some of the critical assumptions of neoclassical economic theory is contained in Table 1.

Obsession with economic growth, and belief that it can continue indefinitely (Daly, 1991), contrasts with the Buddhist view of the need to reduce consumption patterns within modern economies, focusing on the (un)sustainability of lifestyles, rather than adequacy of resources. Adopting more simple and restrained levels of consumption is perceived to be the critical issue to preserving natural resources. This Buddhist perspective is consistent with the growing view that sustainability is concerned more with appropriate and equitable consumption levels rather than the discovery and implementation of new technologies (Carley and Christie, 2000).

Central assumptions of modern economic theory concern the pursuit of profit as the *primary* goal of economic actors and the belief that the pursuit of profit by individuals in competition leads to an optimal outcome for society. By contrast, the primary objective of a Buddhist path is spiritual enlightenment and

Assumptions of modern economic theory	Buddhist principle
Economic growth can continue indefinitely Profit as primary goal	Reduce consumption levels Spiritual enlightenment as primary goal
Individual self-interest leads to optimal decision making	Nature of suffering
Social and environmental impacts as externalities	Nature of self and non-self

**Table 1.** Contrasting Buddhist principles with modern economic theory

reaching *Nirvana* by achieving liberation from suffering (Humphreys, 1962). Economic objectives such as wealth accumulation are viewed as distractions from this path (Patrul Rinpoche, 1998).

Modern economic theory assumes the individual pursuit of profit leads to a *rational* outcome that benefits society. Buddhism challenges the very notion of a separate self and identifies greed and selfish desire as *the* source of human suffering (The Second Noble Truth). Holistic visions commonplace in ecology are also evident in Buddhism:

Life is one. We do not need to slice it into pieces and call this or that piece a 'self' (Thich Nhat Hanh, 2000, p. 87).

In this passage Thich Nhat Hanh describes the reality of oneness and connectedness of all life, opposing the artificial creation of a separate self. Rather than viewing the destruction of the natural environment and social fabric as external impacts of production, the Buddhist observes destruction of the (universal) *larger self*, as all *phenomena are interdependent* (Thich Nhat Hanh, 2000, p. 85).

Central to Buddhist teaching is the focus on the present moment (referred to as *mindfulness*) rather than dwelling on the past, or focusing on attaining happiness in future (based on an attachment to a specific outcome or act of consumption). This perspective offers a possible bridge for transformation to sustainability, whereby society recognizes the ecology as it is now (Batchelor, 1990), rather than how it might be in the future, when, for example, *man* discovers a new technology to solve environmental problems. Humankind has not acted quickly or decisively to solve the environmental crisis, due in part to the denial that a problem does exist requiring immediate and substantial behavioural change and sacrifice.

A striking aspect of Schumacher's five principles of Buddhist economics is the connection and consistency between each. Minimal consumption of functional and durable economic goods of simple design made for local consumption using local resources enables natural resource conservation, reducing violence against nature and worker exploitation, masked by the distancing of consumers from violent, destructive and exploitative production methods.

From a Buddhist perspective economics is an interdependent discipline, rather than a self-contained set of principles, built on the principle of *right livelihood*, directed toward the goal of social, individual and environmental well-being (Payutto, 1994). Activity within a Buddhist economy must contribute to well-being of each of the three interconnected spheres of human existence, the individual, society and the environment. This interconnectedness is used in the following section to derive the concept of sustainable sufficiency. In the next section, the underlying principles of Buddhist economics are contrasted with some of the critical assumptions of neoclassical economics.



## Deriving the Concept of Sustainable Sufficiency

Application of neoclassical economic theory leads to the prioritization of profit maximization, economic growth and wealth accumulation. Sustainability requires economic objectives to be achieved whilst preserving the ecological and social systems that support humankind. In this paper it is suggested that sustainability is achievable if the typical neoclassical economic perspective that dominates modern conceptions of sustainable development is replaced with a Buddhist version of economics. This alternative version of sustainability is referred to as *sustainable sufficiency*.

Sustainable sufficiency is defined as achieving economic objectives consistent with the principle of *right livelihood*, ensuring the preservation of the natural environment and the welfare of each individual and society-at-large. Figure 2 illustrates the interconnectedness of objectives in a sustainable sufficiency framework, which can be contrasted to the sustainable development hierarchy of objectives illustrated in Figure 1.

Attractive aspects of the concept of sustainable sufficiency are the following.

- Inherent compatibility between the ecological, social and Buddhist economic dimensions of the concept. Achieving Buddhist economic objectives relating to work, consumption, non-violence and simplicity is consistent with social and environmental objectives.
- Linking of the concept of *sufficiency* to the objective of *sustainability*. The *development* dimension of sustainable development has been interpreted as *economic* development, ensuring that it remains a primarily economic concept, whereby economic objectives are prioritized over social and environmental concerns (Rogers, 2000). The concept of sustainable sufficiency focuses attention on unsustainable consumption patterns within a society obsessed with maximizing short term economic growth whilst ignoring the reality of limits resulting from a finite supply of natural resources. The inescapable conclusion is the need for the (economically) developed world to reduce consumption levels as a prerequisite to the transition to a sustainable society.
- Ecological, social and economic objectives contained within the concept of sustainable sufficiency are interconnected and mutually supportive. Critically, economic objectives are not prioritized ahead of, or in conflict with, the social objective to ensure welfare for all members of society, or the ecological objective to preserve the natural environment.

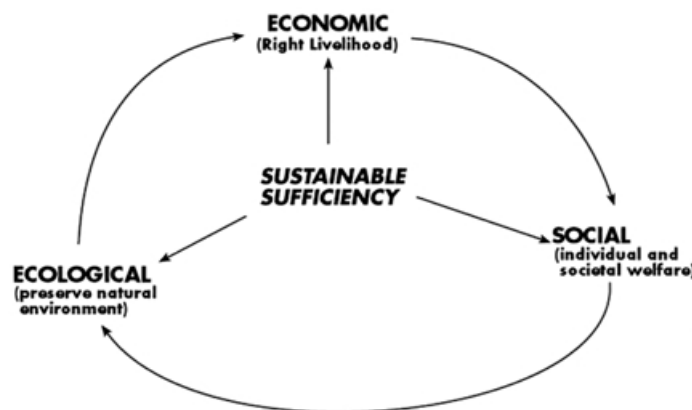


Figure 2. Sustainable sufficiency framework

## Decision Making Using a Sustainable Sufficiency Framework

The remaining sections of this paper examine the application of the sustainable sufficiency framework to decision making within a small non-profit organization. Exploring the sustainable sufficiency concept by analysing an actual decision process provides insight into the practical relevance of the concept as well as its conceptual differences with the concept of sustainable development. The following section discusses the methodology used in this research to perform the decision analysis, the results of which are presented in the next section.

### Research Method and Case Organization

A participative method of inquiry was used in this research to solve an immediate real-life problem encountered by an organization in which the primary researcher is a voluntary worker. Rapoport (1970, p. 449) describes action research as

... research [that] aims to contribute both to the practical concerns of people in an immediate problematic situation and to the goals of social science by joint collaboration within a mutually acceptable ethical framework.

In this research the *immediate problematic situation* is the need for the organization to find a scale of economic activity that is compatible with its ecological, social and economic objectives. The organization is a small incorporated association selling organic produce situated on a university campus operated predominantly by student volunteer labour. Operating decisions are made by a management committee of up to 10 co-ordinators, elected at the organization's annual general meeting to perform specific functions (e.g. marketing, purchasing, accounting, information dissemination etc.) and to manage the continuing activities of the organization through participation in regular management meetings.

The ethical framework in which decisions are made is described in the organization's constitution, which reveals a commitment to the objective of sustainable development reflected in a mix of ecological, social and economic objectives. These objectives include

- financial viability, operating as a strictly not-for-profit business
- provision of healthy and affordable organic food to students and staff of the university, and the local community
- maximizing reuse and recycling opportunities, using minimal product packaging and supplying in bulk where possible
- reduction of environmental costs of transport by buying locally
- dissemination of nutritional and health information and networking with similar organizations.

The organization was established with grants raised within the university community, although there is no commitment to continuing financial support. Sales were below target in 2000, the first year of operation from new premises, resulting in a financial loss significantly reducing the organization's cash reserves. Hereafter the organization is referred to as *OFEI*, an acronym for Organic Food and Education Incorporated.

#### Action research

... seeks to bring together action and reflection, theory and practice, in participation with others, in the pursuit of practical solutions to issues of pressing concern to people (Reason and Bradbury, 2001, p. 1).

This research provides reflection on decisions made within a sustainable development decision framework, leading to an alternative description of sustainability. Knowledge produced by the action research process is used to challenge accepted *theory from the perspective of practice* (Gronhaug and Olson, 1999, p. 13), providing a solution to the original problem aimed at achieving ecological, social and economic objectives that are mutually consistent. This consistency is reflected in the concept of sustainable sufficiency.

To enable the decision analysis which is described in the next section, data was collected from financial statements, discussions with university management, members and coordinators of the case organization and observation and participation in management and general meetings, over the two year period 2000–2001.

### Decision Analysis

The decision that is the focus of analysis in this paper is the need for OFEI to find an optimal scale of economic activity. A necessary condition of economic optimality is enabling the organization to achieve the ecological and social objectives contained in OFEI's constitution. Given OFEI is at an early stage in its organizational life cycle, experiencing lower than expected sales revenue and economically unsustainable operating losses, there is an expectation that it must increase scale by generating more sales revenue and increased gross profit. This decision is examined within the sustainable development framework in which OFEI is *actually* managed as defined in its constitution, and compared with how the decision could be made *hypothetically* within a sustainable sufficiency framework.

According to management theory decision making is a systematic process consisting of a series of logical steps (Robbins and Mukerji, 1990) listed in Table 2.

Steps 1–6 of the decision process depicted in Table 2 are applied to the specific decision concerning scale confronting OFEI. Solutions targeting the specific problem have been implemented (Step 5) by the OFEI management committee, and are listed in Table 3. The review process (Step 6) has been conducted informally by the management committee, and is continuing, given the relatively short timeframe since implementation. The major purpose of the analysis provided in this paper is not to measure the effectiveness of decision making within a sustainable development framework, but rather to contrast decision making within sustainable development and sustainable sufficiency frameworks. Contrast is provided from the comparison of the different solutions that develop logically from the application of the alternative versions of sustainability.

Step 1 of the systematic decision process (Table 2) requires identification of the problem. In this case, the problem is a perceived suboptimal scale of economic activity reflected in lower than expected sales resulting in a net loss incurred in 2000 and 2001. Step 2 requires identification of possible solutions to this problem. Solutions are provided in Table 3 in six separate categories within both a sustainable development and sustainable sufficiency framework.

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1. Define problem
  2. Identify possible solutions
  3. Determine criteria to compare solutions
  4. Select best solution
  5. Implement decision
  6. Review outcome
- 

**Table 2.** Systematic decision making process

Solution categories	Action taken by OFEI within a sustainable development decision framework	Possible courses of action within a sustainable sufficiency decision framework
Revenue	Expand product range and marketing activities	Sell essential products with characteristics of quality, durability and simplicity abiding by the principles of non-violence and natural resource conservation
Product range	Sell organic products which appeal to customer base Provide variety by importing quality products Increase range of high volume organic snack foods with low health benefits	Provide essential products at low prices Purchase local produce only Sell products that require minimal and reusable packaging
Profit margins	Low mark-ups for working members Non-members pay higher retail prices Gross profit margins kept as low as possible for predominantly student customers	Standard prices varied depending on customers' needs and ability to pay
Cost management	Use volunteer labour to reduce costs Selection of <i>green</i> alternatives results in higher costs in some cases (e.g. higher cost of 100% recycled paper bags)	Consumption by organization reduced to essentials only Reduce consumption of transport services, packaging materials and technology products
Labour management	Offer financial incentives to volunteer workers to increase support and efficiency Minimal training and supervision provided due to limited resources of organization High turnover of volunteer staff	Create work environment encouraging volunteers to learn variety of tasks Form work collectives responsible for major operations within OFEI Provide social network for members
Technology management	Use conventional technology to increase efficiency of business Select green technology options if financially viable Utilize internet marketing opportunities	Minimal consumption of technology products Avoid use of technology with negative environmental or social impact

**Table 3.** Comparison of decision making

An examination of Table 3 identifies different solutions provided within a sustainable sufficiency compared with a sustainable development framework. Specifically, within a sustainable sufficiency framework the following hold.

- *Product range is smaller*, focusing on essential low cost items of simple design made from local resources compatible with the principle of non-violence to humans, other species and the earth. *Revenue* is earned predominantly from the sale of essential products.
- *Profit margins* recognize the different circumstances of customers. Food is given away to those who need it rather than wasted, even if this risks incurring lower sales levels.
- *Consumption of resources is lower*. Use of technology transfer is perceived as both a technical and a social process whereby technology is not used to replace workers or local indigenous knowledge (Carley and Christie, 2000). Technology that degrades the environment is rejected; for example, electricity gen-

erated from fossil fuels and the use of CFCs in refrigeration are considered inappropriate due to their negative ecological impact. Consumption of transport services is minimized from the localization of business activities.

- *Work is redesigned* so it represents a character building and social experience for workers. Multiskilling and teamwork are prioritized ahead of specialization, subject to workers' preferences and social needs.
- *Inputs are sourced from the local region* and outputs are consumed by local customers. No doubt globalists will cringe at the idea of reducing volumes of world trade, but until sustainable transport systems are developed widespread destruction of the natural environment will continue from the mobility of goods, services and people. Benefits from globalization flow from the sharing of knowledge, ideas and international cooperation. These benefits do not require large scale destruction of the natural environment.

Step 3 of the systematic decision process (refer to Table 2) requires the selection of criteria to enable a comparison of possible solutions. Within contemporary interpretations of sustainable development the major criterion is economic; that is, economic objectives are prioritized subject to restricting negative social and environmental impacts to *acceptable* levels. Generally, *acceptable* social and environmental impacts are unsustainable.

Steps 4 and 5 of the systematic decision making process depicted in Table 2 require solutions to be selected and implemented. Solutions were selected using the sustainable development decision framework listed in Table 3. On review of these decisions (Step 6, Table 2) the management committee recognized their inability to find solutions that were consistent with all objectives contained within OFEI's constitution. Financial performance can be improved, but only (it seems) by compromising ecological or social values.

Reflection on decisions made continually led to frustration within the management committee as to their inability to find solutions that were consistent with all of OFEI's critical objectives. This led to the examination of theories used by actors to guide their behaviour, considered central to the action method (Reason, 1994), and the development of a new theory of sustainability, that is sustainable sufficiency.

Within a sustainable sufficiency framework, the decision criterion is the achievement of ecological, social and economic objectives concurrently; that is, action taken must be consistent with achieving sustainable sufficiency in a holistic context. By contrast, the primary economic objective within a sustainable development framework is to be financially viable. Sustainable sufficiency requires social and environmental objectives to be achieved whilst adhering strictly to the principles of *right livelihood*. Adherence to right livelihood results in decisions that appear not to offer direct solutions to the basic problem, perceived to be a suboptimal scale of economic activity. Specifically, solutions offered under sustainable sufficiency may not lead to increased sales, which is perceived as the obvious solution to OFEI's financial problems.

Financial viability is *not* the ultimate economic goal within a sustainable sufficiency framework. If a business such as the organization discussed in this research is not financially viable it will cease to exist unless it receives external financial support. Alternative business ventures will evolve to provide vehicles for the production and sale of economic goods, within a sustainability framework. Critically, the welfare of individuals, society and the natural environment are not sacrificed in the pursuit of profit and wealth creation.

## Conclusion from Decision Analysis

A striking difference evident from the decision analysis discussed in the previous section is that decisions made within the sustainable development framework require continual compromise and balanc-

ing of the mix of objectives that decision makers are attempting to achieve. Furthermore, each decision results in both positive and negative impacts. For example

- expansion of the product range is expected to result in positive economic impact (increased sales), positive social impact (increased choice), but negative environmental impact (from transport of product from outside the local region)
- flexible profit margins enable the social objective of providing cheap, healthy food to students to be achieved, but are not necessarily economically viable
- the use of sustainable inputs improves environmental performance but the increased economic cost of, for example, renewable energy and packaging made from 100 per cent recycled materials leads to reduced economic performance.

The tradeoff between competing objectives evident in the decision analysis and emphasized in the previous examples is not apparent within the hypothetical sustainable sufficiency decision framework. This is due to the economic dimension of the concept being mutually consistent with the ecological and social dimensions, with the removal of financial viability as *the* overriding economic objective.

Allowing organizations that are not financially viable to obtain external support or be allowed to perish creates opportunities for new and alternative human collectives producing economic goods to evolve. From this specific case, an outcome of prioritizing ecological and social objectives appears to be smaller organizations, with reduced product ranges, lower levels of consumption of technology products, transport services and energy and work environments that prioritize human character building aspects of work.

Localization of supply and distribution chains resulting from the application of the sustainable sufficiency concept directly challenges the necessity and desirability of economic globalization. Critical evaluation of the uptake of new technologies, reliance on volunteer labour and reducing the variety of consumer goods available, focusing on the provision of essential products, represent major changes to the way in which business is currently practiced. An area for further research is whether profit-based organizations with strong social and ecological values are successfully able to implement these practices and to what degree they are forced to compromise these values to achieve economical viability. If organizations that challenge the norms of business practice are to survive, supporting networks are needed, providing critical mass for business expansion and vital knowledge sharing.

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## Conclusion

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Given that Western society is far removed from a Buddhist economic perspective, of what value is the concept of sustainable sufficiency? This discussion aims to explore and clarify inherent inconsistencies in the theory and application of sustainable development. An emphasis on ecological and social principles, but the application of economic priorities, has led to an inherently unsustainable version of sustainable development dominating national agendas throughout the world. The concept of sustainable sufficiency imports a version of economics based on Buddhist principles that is consistent with ecological preservation and social welfare.

The decision analysis described in this paper demonstrates critical differences between expected outcomes using a sustainable development versus a sustainable sufficiency framework. For example, using a sustainable sufficiency framework the organization would be transformed but not necessarily enlarged. This transformation results from the changed set of objectives, which no longer prioritize economic outcomes over social and ecological outcomes. Furthermore, the continuing tradeoffs between economic



and environmental outcomes that characterize decision making within a sustainable development framework are absent from a sustainable sufficiency framework.

Misuse of the sustainable development concept to justify continuing economic expansion masks the level of change required to achieve sustainability. The apparently radical nature of the sustainable sufficiency concept provides an indication of the level of change required to transform the human economy to an economy that is both ecologically and socially sustainable, indicating the size of the gap between sustainable and unsustainable economic behaviour. Sustainable sufficiency portrays the Western economic view as a barrier to achieving a socially and ecologically sustainable form of development.

Many of the assumptions and values underlying human behaviour in the West are hidden from view. Alternative cultural perspectives force us to re-examine these values and assist in changing the human mind set, critical to the transition to a just, equitable and sustainable society.

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