

An Historian's Critique of Sustainability

By Kathleen R. Smythe

Abstract

The most common word-based image of sustainability is a balanced three-way relationship between the environment, society and the economy, sometimes portrayed as a triangle, sometimes as a Venn diagram. The idea is that if you consider all three equally you will have a sustainable outcome. After twenty years of use, however, it has yet to yield a radically different approach to policy, planning or business. The combination of abundant and cheap energy and an emphasis on production has resulted in the separation of economics from both social and biophysical worlds. The long-established practice of isolating the three elements makes re-associating them difficult. Even if it were possible, a more holistic approach to human welfare, both in relation to the natural and social worlds, is likely to bring societies closer to sustainability. The suggestion is that a framework that starts from the premise of providing meaningful work and meaningful lives will support the flourishing of other species as well as the human species.

Keywords: Sustainable development, Brundtland Commission, poverty, energy

Introduction

Sustainability is a broad term that suggests where those concerned with planetary welfare might fruitfully direct their attention (Jacob 1994: 241). The most common framework for sustainability is a three-pronged diagram that integrates economic, social and environmental factors for planning and decision-making. This diagram, sometimes a triangle, sometimes a Venn diagram, highlights the need to keep multiple priorities in mind in order to achieve sustainability in a variety of contexts, such as education, business, human rights law, and urban planning (Elkington 1994: 90-100; McGoldrick 1996: 796-818; Elkington 1997; Davidson 2009: 607-608).¹ Such a framework has been in use for more than twenty years and has yet to yield a markedly different approach to constructing human societies to ensure the long-term welfare of the human and other species.



Fig. 1: The Sustainability Triangle

Most, even those critiquing our current systems and ways of operating, accept the triangle, including the isolation of economics from the social and environmental legs, as the best operational mechanism for achieving a more sustainable future. For example, authors of *The Resilience Imperative*, Michael Lewis and Pat Conaty, argue that a steady state economy is the solution to more resilient societies, emphasizing the primacy of the economic leg (Lewis & Conaty 2012: 2, 33). Ecological economists, too, want to include the resources and goods derived from our ecological systems to our economic reckoning but not necessarily change the fact that one leg is economics (Lewis & Conaty 2012: 332).

The Problem: Isolating Economics

Such widespread acceptance of the sustainability concept and lack of significant change after decades suggest a need to re-examine the origins of the sustainability framework for clues to explain its inutility. How the current framework (or the triangle) came to be and why it has been unsuccessful is the focus of this article. I will argue two things. The first is that one of the primary hindrances to achieving sustainability, or the associated idea of sustainable development, is that scholars and professionals are more bound by past formulations of society, economics and

the environment than they realize. For decades now, and before the three-part framework was developed in the early 1980s, these facets have been considered in isolation. It is particularly important that economics has been isolated from social and environmental considerations. Simply bringing them together in a polygon has not created and cannot create sustainability.

Unlike previous economists, such as the French Physiocrats, current economists dismiss societies' relationship to the biophysical and social worlds as inconsequential, making integration impossible to achieve (Hall & Klitgaard 2012: 104). Economics is but one prism for understanding society, and prevailing neoliberal economics is a particularly narrow one. As economist Karl Polanyi and others have claimed, economics is a societal construct, too; it does not exist outside of human societies (Daly & Farley 2011: 7). Economist Kenneth Boulding wrote decades ago that, "there is no such thing as economics, only social science applied to economic problems" (Lewis & Conaty 2012: 332). And changes in economics render changes across society.

The weaknesses and faults of current economic thought are more obvious in the developing world than in the industrialized world from whence they came. As the late professor of development sociology Thomas Lyson wrote, "the 'seams' of the neoclassical [economic] viewpoint are most evident" in developing countries (Lyson 2004: 24). One reason for this is that the field of economics and the assumptions built into it stem from a Northern, "successful" perspective. Such views have been built, in part, on the South's heavy economic work of providing cheap resources and cheap labor for the benefit of the North (Hall & Klitgaard 2012: 64).

Africans' experiences with colonialism and development bring into sharp relief what happens when a society or country is examined primarily through the lens of economics, as extractive colonial governments did. The attendant consequences in religion, politics, and culture were not always anticipated and often complicated. For example, a focus on cash crops for export, such as coffee and tea, meant that men who had either cooperated with women in food production or played a secondary role now had government-sanctioned access to agricultural technology and the cash associated with export crops, while women and children were left as subsistence producers. A strong gender divide in terms of access to the cash economy has prevailed ever since in many African societies, as has a concomitant sense of gender identity shaped by access to the market economy (Gilbert and Reynolds 2012: 286-307; Mathabane 1987; M'Mbugu-Schelling 1987).²

Another more recent African example demonstrates how challenging it is to embrace all three aspects of sustainability equally. When the improved seeds, pesticides, and biotechnology associated with the Green Revolution increased yields in places like Mexico and India during the 1960s, such changes did not occur in Africa. In the twenty-first century, a number of development organizations, including the Gates Foundation, have decided that the Green Revolution is part of

the solution to Africa's economic woes (Blaustein 2008: 8-14). Yet, one of the results of the Green Revolution decades ago was persistent social inequalities as well as environmental degradation. Without attention to this reality, the results will be the same in Africa. Thus, the Green Revolution will likely increase production, the economic side of the triangle, at the risk of little improvement on the other two sides of the triangle (Kerr 2012: 213-229). Moreover, as both these examples demonstrate, the disruption of subsistence agriculture has been a chief attribute of development, one that sustainability has done little to disrupt. Moving people away from subsistence production has been a long-standing desire.

Why, given our understanding of such global events over the past century, would we isolate economic ideas from other important social constructs, such as household, community, politics or religion in the pursuit of sustainability (Littig & Griesler 2005: 67; Davidson 2009: 616)?³ The pursuit of sustainable development (a derivative of the triangle most clearly articulated in the UN document *Our Common Future*) has not eradicated poverty or promoted a more sustainable use of global resources (Jacob 1994: 239). Part of the challenge that the sustainability movement has faced up to this point is that it has isolated economics as deserving special recognition and attention in sustainability decisions.

Because of the pervasiveness of the isolation of economics from the environment and society, the current framework is not the best representation of human welfare or prospects. This, then, is the second argument of the paper. As a species, there are fundamental needs and relationships integral to human thriving. Reframing sustainability on the basis of holistic human welfare, both in relation to the natural and social worlds, is likely to bring societies closer to sustainability. It also begins to integrate the anthropocentric and intrinsic value views of the natural world, arguing that optimal human welfare is consonant with rich, diverse ecosystems.

A History of the Triangle

Isolating Economics

The sustainability triangle captures a history of ideas—first that economics became isolated from the natural world and society and, then, that policymakers and politicians sought to restore the connections. There is one foundational reason for economics' isolation from the environment and society, paving the way for the reign of neoliberal economics, when economists and politicians believed that if you got the economics right, particularly production, then other societal interests would follow. The foundational piece is the unprecedented economic growth associated with the last two centuries, and the twentieth century particularly, made possible largely from abundant and cheap supplies of fossil fuels. These trends brought renewed interest in markets, an idea that was reinforced with the fall of

European communist states in the late 1980s. Then at least two other developments, a concern for poverty and environmental degradation, brought scholars and policymakers to the point of trying to re-integrate economics, society and the environment.

The Industrial Revolution was possible due to the concentrated energy of coal that released people and animals from a variety of tasks, making work more efficient. Economic development leapfrogged again with the commercial use of petroleum. Liquid fossil fuels were discovered in large quantities in Pennsylvania in the middle of the nineteenth century. At the time of discovery, there seemed to be little use for the black gold, as historian Brian C. Black calls it (Black 2012: 20-30). Yet, a decline in whale oil production, abundant quantities of crude petroleum, and an entrepreneurial capitalist spirit created an industry by the end of the nineteenth century. “By the 1920s, the nearly useless product had become the lifeblood of national security to the United States and Great Britain,” Black writes (Black 2012: 59). Such dependence led to an alliance between the oil tycoons and the U.S. government, resulting in an oil economy that relied on transnational extraction and refining (Black 2012: 67-93). Historian John McNeill calculates that “we have probably deployed more energy since 1900 than in all of human history” (Black 2012: 10).

Such abundant, cheap energy is an historical anomaly and, according to systems ecologist Charles A.S. Hall and economist Kent A. Klitgaard, lured most economists and politicians away from the biophysical foundations of our economy. In *Energy and The Wealth of Nations* Hall and Klitgaard write, “The only effective and large-scale technology that so far has been ‘invented’ for capturing and storing that energy is photosynthesis.” We use products of photosynthesis for all of our needs. Fossil fuels, ancient plant material, are no exception. All the theories that dominate economic thought today were developed on the upslope of the Hubbert curve, during a time characterized by the enormously increasing availability, and declining cost of obtaining, energy,” Hall and Klitgaard proffer (Black 2012: 101-2). The Hubbert curve is Shell Oil executive M. King Hubbert’s depiction of the rate of global oil production with a peak occurring some time around 1970.

One result of the spread of the use of cheap hydrocarbon energy was that economists stopped worrying about the limits of solar flow and the limits of the biophysical world, essentially ignoring energy, and, instead, turned to social explanations for economic problems, focusing on production and wealth generation (Black 2012: 71, 97-8). In fact, even though abundant, oil and minerals remain the means by which modern societies add value through labor and capital to produce goods. To ignore it, as Herman Daly notes, is “nonsensical” (Daly 2008: 513).

After decades of access to cheap fuel, a belief in endless growth came to be government policy through Reaganomics or neoliberal economics in the United States, similar policies in Great Britain, and the imposition of such policies glob-

ally through institutions such as the International Monetary Fund (IMF) and the World Bank (Ferguson 2009: 172-3). This was the second wave of unregulated markets in the twentieth century, the first occurring between the 1890s and 1920s (Lewis & Conaty 2012: 39). After the Great Depression, economics and economic decision-making earned high prestige in both the United States and Great Britain, as governments sought to control and revive their economies both in the 1930s and after World War II (Daly & Farley 2011: xix-xx). But the emphasis for decades (between the 1930s and 1970s) was on Keynesian economics with a concern for employment and a role for the state in economic planning. Several decades after World War II there was a return to unregulated markets as faith in government planning, both in capitalist and communist countries waned. While both communism (or state-planned economies) and capitalism placed value on extracting resources at faster and faster rates to fuel economic growth, capitalism favored free markets rather than planned economies. With the fall of communism in the late 1980s, greater faith was placed on the unregulated market as the arbiter for economic production, emphasizing economics' disconnect from both environment and society.

Since the 1980s, in both the North and the South, the hegemonic idea was that if societies reduced government and encouraged free markets, more people would have more goods and better lives. This was neoliberalism, a belief in maximizing utility (Jacob 1994: 241). Neoliberal economics under Margaret Thatcher in Great Britain was marked by a twenty percent reduction in the civil service during her tenure (Kavanagh 1997: 123). By the time Thatcher left office in 1990, two-thirds of publicly owned assets had been sold. The Conservative government also cut the income tax rate from 33 to 25 percent (Kavanagh 1997: 127). The era was marked by declining labor union influence and middle class influence in the form of increasing control over public school and university teachers (Kavanagh 1997: 128-9). In the United States, the airline industry was deregulated, welfare reduced, and private investment encouraged. Deregulation of the airline industry, meant to promote competition, soon left the top five airlines controlling seventy-one percent of the market and able to charge exorbitant fees on some routes and for some seats (Kuttner 1989). In addition, during eight years in office, Reagan cut social welfare deeply and implemented policies that resulted in both unemployment and a more nimble workforce as well as the closure of a number of companies and a more modern industrial sector (Aho & Levinson 1988: 10-25). The various policies weakened labor union strength, workers' wages and security.

Labor, people really, became secondary to narrowly conceived economic policy. Keynesian economics had foregrounded employment as an important element of economic policy. After the 1970s wages and corporate growth and success became disconnected, except at the upper ranks of leadership, as prevailing theorists argued that the best possible way to improve the overall global economy was by promoting policies that favored production, not full employment or fair wages

(Hall & Klitgaard 2012: 181-9). A stronger focus on the market masked “non-economic and non-market forms of human relationships” (Keys 1998: 80).

The last five decades have been marked by divergent paths for many industrialized countries (many in the North) and less-industrialized, usually previously colonized countries in the South. Yet, citizens in both places have faced similar policies. In the South, the 1980s was marked by “structural adjustment,” including budget austerity and market liberalization (Rist 2008: 171). The results, in many cases, in both the North and the South, resulted in adjusting well being downwards to meet the “imperatives of the market economy” (Rist 2008: 173). In response, in the South non-governmental organizations and the United Nations sought to ameliorate the consequences of these economic policies through community-based and small-scale ventures (Rist 2008: 173). Across the globe, economics was no longer integrated into society as a source of employment or as a system that needed governmental checks or balances to ensure citizens’ welfare. If checks and balances did exist, they came from civil society.

A Concern for and Construction of Material Poverty (and Devaluing of Manual Labor)

By the 1980s, economists and policy-makers had largely dis-connected economics from both its environmental and social foundations. And the costs of efforts in these directions had been clear to some for decades as social movements and government policies responded to the inequality, injustice and degradation such beliefs were causing. Since the 1950s, a view of the world—of rich and poor countries—came to dominate in the North. Dividing the world into “poor” and “rich” has its origins in the post-World War II era (Bertaux, Smythe, and Crable 2012: 34-45). President Truman’s inaugural address in 1948 is an oft-cited early public statement of such a belief system. In it he identifies the “ancient enemies” of “hunger, misery, and despair” as problems to be overcome. Hunger had been a long-standing concern, as Thomas Malthus’ oft-cited projections in 1798 indicate (Hall & Klitgaard 2012: 208). Through much of the nineteenth century, hunger was a specter for many (Hall & Klitgaard 2012: 212). Truman saw technology and international cooperation as means to eradicate global poverty. He invited other countries “to pool their technological resources” to benefit peoples elsewhere as “our commerce with other countries expands as they progress industrially and economically” (American Experience). Cheap fossil fuels were leading to spectacular agricultural production rates, a thousand times greater than those associated with slash and burn agriculture of the tropics, suggesting that hunger could be eradicated (Mazoyer & Roudart 2006). It seemed clear to many that economic and social welfare could be joined. Yet, this formulation of poverty, reliant upon increasing use of technology for its eradication, has done little to bridge the gap.

Misery and despair are likely a reference to difficult, labor-intensive work (often for subsistence rather than market production) and the rudimentary housing

and clothing conditions often associated with it, conditions that most in the United States were only a generation or two away from when Truman gave his call to action. He called upon the international community to aid and develop the less fortunate, decolonizing states to overcome such enemies (McMichael 2008: 274).

Yet, Truman's and others' promotion of development constructed poverty or "modernized poverty" by devaluing subsistence economies (McMichael 2008: 276-7). Walt Rostow's "big push" of the 1960s and Jeffrey Sachs's ladder of development of the 2000s are two examples (Rostow 1960). Bill McKibben describes Sachs' idea:

[It is a] progression of development that moves from subsistence agriculture toward light manufacturing and urbanization, and on to high tech services. You begin with peasants who "typically know to build their own houses, grow and cook food, tend to animals, and make their own clothing. They are therefore construction workers, veterinarians, and agronomists, and apparel manufacturers. They do it all, and their abilities are deeply impressive." But they are also "deeply inefficient," because "Adam Smith pointed out to us that specialization, where each of us learns just one of these skills, leads to a general improvement of everybody's well-being" (McKibben 2010: 163).⁴

In this view, specialization and reliance on the market economy are key to individual and societal success. The social leg of the triangle becomes primarily focused on the eradication of material poverty, feeding the notion that economics is more important than any other aspect of society.

But, as Sach's view acknowledges, if only implicitly, development leads not only to a materially more complex lifestyle but also to one in which there is more vulnerability, both for individuals and societies, as they come to rely on the marketplace for most of their needs rather than satisfying some of them through their own labor and relationships. This is not a new realization. Historian William McNeill offers, "catastrophe is the underside of the human condition—a price we pay for being able to alter natural balances and to transform the face of the earth through collective effort and the use of tools." The better humans become at controlling nature, the more vulnerable humans are to catastrophe (Foster 2011: 1). McNeill's view that economic exploitation through technology leads to endemic catastrophe is different than that of the Brundtland Commission as will be seen; in their view poverty leads to endemic catastrophe.

As sociologist Phillip McMichael argues, the "have/have-not" division was not only created by Northern power but has been perpetuated by it as well. Thus, the WTO (World Trade Organization) promotes corporate agriculture, driving farmers off their land, while the World Bank seeks to eradicate poverty, a poverty that is most readily apparent in urban slums, where failing farmers flee. "Then its [the WTO's] success (abundant commercial food) is simultaneously its failure (a billion slum dwellers)," he claims (McMichael 2008: 274). Thus, capitalist industry promotes dislocation and modernized poverty while social interests seek to ameliorate the conditions. Economic and societal interests work at cross-purposes.

Ending hunger, misery and despair are not strictly economic enterprises but because they have been promoted as such, a truncated version of human needs, featuring access to wages and goods in the marketplace, has been promoted.

The Construction of Social Poverty and Valuing Technology

Within neoliberal economics there is an almost unassailable belief in technology as intrinsically good. There are two relevant consequences of this belief. The first is an undue emphasis on *ease* of access to food, water and shelter that often gets translated into the ability to reduce hard labor and hard living and sometimes a rationale for destruction of subsistence economies. The assumption was (and is) that those in subsistence economies “could not live life fully,” as Gustavo Esteva has noted (Keys 1998: 83). While the industrialized West has realized access to water and health care and other benefits by pursuing technological and economic development, this does not mean ours is the only path to such achievements nor does it mean that such development has not had significant costs (Borgmann 1984: 103). Pursuit of technology has led to disengagement from community and dissatisfaction with work, or diminution of the human spirit, due to reduction in connection to people and the Earth. Philosopher Albert Borgmann laments the contraction of expertise and expansion of unskilled labor, for example, as a result of promoting comfort, mobility, and access (Borgmann 1984: 52-120). A second consequence is the increased vulnerability discussed earlier. In both cases, a balance between individuals’ ability to meet some of their needs and elimination of backbreaking work is not part of general economic discussions. Sustainability has inherited a narrow concern for material welfare that has excluded other means of promoting material welfare as well as consideration of social welfare.

A Concern for the Environment

The other movement since the 1960s, in addition to a concern for poverty, has been an environmental movement. Political scientist Glenn Ricketts seeks the roots of sustainability in both the environmental movement and other social movements of the 1960s and early 1970s. Both were a response to the fast-paced economic and social changes wrought by cheap fuels. While “conservationism began long before the 1960s, ... its environmentalist incarnation arose with the publication of ... *Silent Spring* in 1962,” he writes (Ricketts 2010: 20-21). One of the ways in which environmentalism is distinguishable from sustainability is that the former rarely saw or acted upon interconnections between environmental and social injustice, preferring to focus on the environment, while others worked on issues of race and gender, or systemic injustices due to lack of access to power. The environmental movement’s links to the feminist movement and environmental justice, among others, helped pave the way for sustainability (Ricketts 2010: 38-40). “When it did emerge, the sustainability doctrine offered a way to synthe-

size environmentalism with civil rights themes and anti-poverty programs,” Ricketts continues (Ricketts 2010: 35). With Ricketts’ analysis, it is clear how heretofore disparate facets, society and the environment, were considered together.

A Concern for Poverty and Environment – the Brundtland Commission

In the early 1980s, with a concern for social equity (particularly poverty), the environment and a commitment to endless growth, an international team wrote the seminal document for sustainability and its closely associated idea, sustainable development.⁵ In 1983 the General Assembly of the United Nations asked the Secretary-General to appoint a commission on the environment and development. The Prime Minister of Norway, Mrs. Gro Harlem Brundtland became Chair of the Commission. The members, politicians and environmental experts from various countries, published their report, *Our Common Future*, in 1988. They recognized that human activities, particularly ones associated with development, were destroying the environment but, at the same time, poorer peoples, certainly deserved more development. They sought to re-integrate what had become and still was becoming an isolated perspective on economics, human welfare and environmental sustainability. The triangle placed all three in relation and carved out a space in the center for sustainability. Sustainable development was reinvigorated. But the model was deeply flawed because the dominant economic system was not flexible enough to accommodate the holistic connected thinking necessary for complete re-integration.

In this intellectual and geopolitical environment, The Commission wrote:

Humanity has the ability to make development sustainable—to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs. The concept of sustainable development does imply limits—not absolute limits but limitations imposed by the present state of technology and social organization on environmental resources and by the ability of the biosphere to absorb the effects of human activities. But technology and social organization can both be managed and improved to make way for a new era of economic growth. The Commission believes that widespread poverty is no longer inevitable. Poverty is not only an evil in itself, but sustainable development requires meeting the basic needs of all and extending to all the opportunity to fulfill their aspirations for a better life. A world in which poverty is endemic will always be prone to ecological and other catastrophes (Rist 2008: 181).

In this passage, the emphasis is on more development (through better technology and social organization) in order to eradicate poverty. A gesture toward the environment and limits was all that was achieved likely due to a faith in the market economy and a primary concern for material poverty (Rist 2008: 194). Here and throughout the document, the focus is on realizing economic concerns, justified in part at least by social concerns (Rist 2008: 182). For example, in the Introduction, the Commission writes, “Our report...is not a prediction of ever increasing environmental decay, poverty and hardship.... We see instead the possibility for a new era of economic growth, one that must be based on policies that sustain and ex-

pand the environmental resource base” (*Our Common Future*¹¹).⁶ The message is that human technology will overcome environmental limits for the sake of development. Finally, *Our Common Future* concludes that ending material poverty is the only way to ensure societal sustainability, while others have long been concerned that societal vulnerability is due as much if not more to investment in endless growth without concern for limits.

The triangle, born of concern with current practices, sought a way to bridge economics long-standing isolation, but instead it reinforced the autonomy of the economy from the two systems of which it is an inherent part because the value system under which the authors and their host countries operated was not substantially different than what had come before (Jacob 1994: 241). Therefore, the resulting framework did not subsume economics back into the environment and society.⁷ It has, however, brought warranted attention to the challenges inherent in halting environmental degradation. A number of conferences followed in the next decade, including the “Earth Summit” in Rio de Janeiro and UN Framework Conventions on Climate Change and Biological Diversity all in 1992. As a result, most development projects seek to understand the environmental implications of their plans.⁸

Yet, weaknesses of the formulation are clear to many who have sought to clarify sustainability and sustainable development in order to implement beneficent concrete actions. Development studies scholar Gilbert Rist has noted that “humanity has the ability to make development sustainable” is a circular argument, “assuming as true what has to be demonstrated,” which is particularly troubling because the concept is not accompanied by policy guidance (Rist 2008: 180). Ecological economist Herman Daly has called for a distinction between development and growth. He defines the former as “qualitative improvement” and the latter as “quantitative physical increase” (Daly 2008: 513). For Daly, sustainable development would mean “qualitative improvement in design, technology, efficiency, and ordering of priorities... without quantitative increase in the entropic throughput from environmental sources to sinks” (Daly 2008: 513-14). This distinction is useful because it moves closer to a means by which human societies could seek both reduction of poverty and ease pressure on environmental resources. It is a move that Professor Merle Jacob of the Lund University School of Economics and Management also supports but she warns that such a re-definition of economic policy for sustainability would require a new framework for sustainable development as it is a radical departure from previous assumptions (1994).

Both Daly’s and Jacob’s critiques recognize that since the 1988 document growth replaced concern for human rights. The United Nations’ annual country reports for its Human Development Index (begun in 1990) recognizes other ways of improving human welfare and development beyond growth. The index includes school enrollment/literacy and life expectancy, among other factors. Economist and Nobel laureate Amartya Sen’s definition of development is a measure of a

people's ability to make choices about their own futures (Sen 1999). In these conceptualizations, human welfare is broader than material welfare.

Such notions get closer to a more holistic vision of what humanity might be but they don't sufficiently tackle the underlying premise of development as proportional to material comfort and ease of labor or, to put it more strongly, that "poverty is an evil in itself" (Rist 2008: 182). A more successful sustainability model might start with who humans are and what they need to thrive. Then with a more realistic view of the limited utility of technology and economics' ability to meet human needs, the work of crafting a new model can begin.

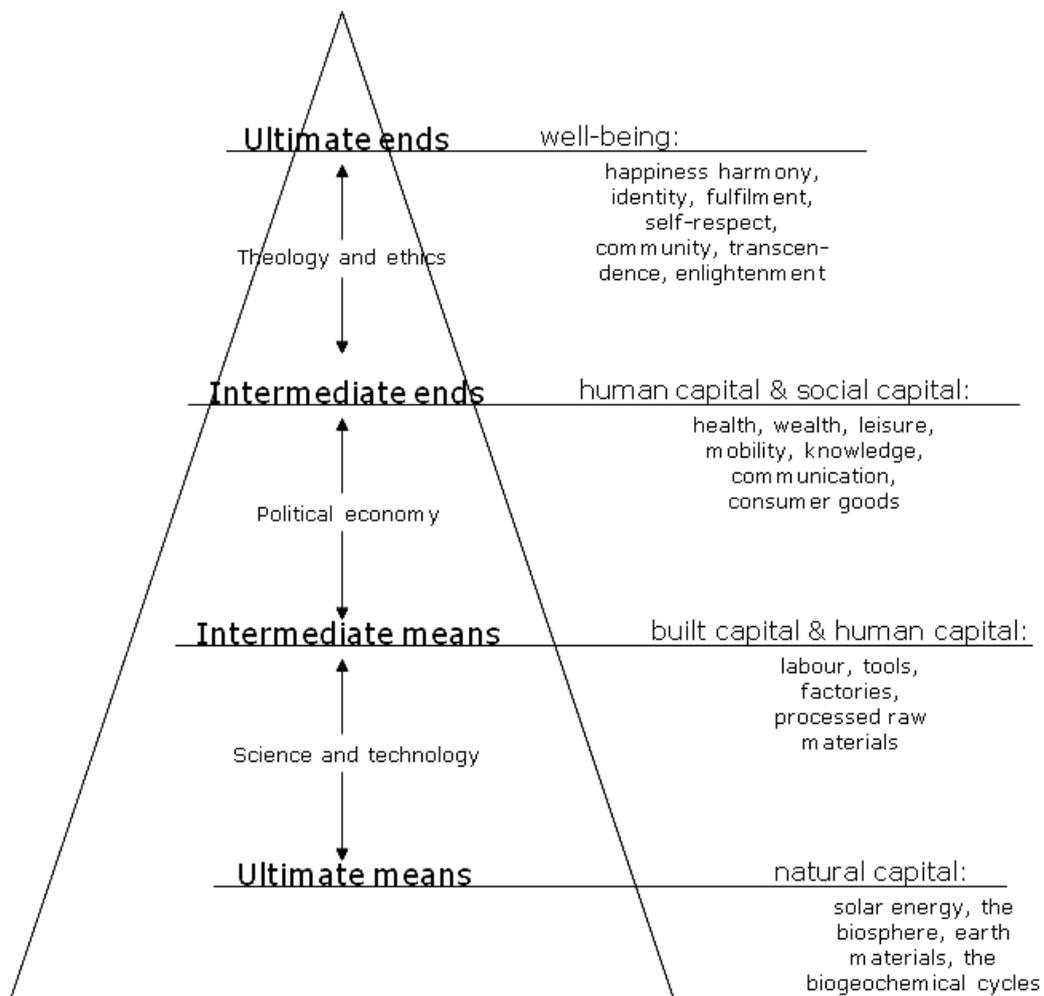
Toward a New Framework: Meaningful Work and Meaningful Lives

The first step is to be explicit about holistic human needs rather than simply material ones. Hall and Klitgaard offer a place to begin. "To be sustainable, an economy must live indefinitely within nature's limits.... A sustainable economy must be able to provide not only jobs but, ideally, also meaningful work and meaningful lives for those human beings who make up 'the economy (Hall & Klitgaard 2012: 35).'" In this definition the economy must answer to the welfare of the environment and people first.

In similar language, The United Kingdom's Sustainable Development Commission calls for prosperity rather than economic growth. The former is achieved by the strength of relationships, social trust, satisfaction at work, civic engagement, and a sense of shared meaning and purpose as essential to prosperity (Lewis & Conaty 2012: 15). To achieve this, governments must "provide creative opportunities for people to flourish" and "establish clear resource and environmental limits on economic activity" (Lewis & Conaty 2012: 15). Resource and environmental limits would likely reduce reliance on the market for some human needs. Meaningful jobs and meaningful lives (involving a reasonable measure of subsistence work and access to technology), full of meaning and purpose, provide a starting point for a critique of the triangle.

A third way of thinking about non-material needs is in terms of the human spirit, something that makes us distinct from all other species, and thus is part of human nature. According to psychologist Michael Penn and political scientist Aditi Malik there are two elements to the human spirit: "to consciously strive to attain that which is perceived to be true, beautiful and good" and our psychological sense of self with hopes and aspirations "that transcend the struggle for mere existence and continuity as a biological organism" (Penn & Malik 2010: 665-688). The first might roughly be central to a meaningful life and the second to meaningful work. So far we have established some conditions for promoting the human spirit. But what is the relationship between meaningful lives and work and the environment?

Establishing what the relationship between meaningful lives and the environment requires re-evaluating the role of technology. Herman Daly seeks to remind that pursuit of technology should be a means to an end, human well being, not an end in itself. And his ultimate (natural capital) and intermediate means (labor and processed raw materials) are means by which humans express their nature and needs, their “ends.” Daly is missing one important intermediate end, our holistic relationship to the environment, and one ultimate end, the capability for self-sufficiency. In Daly’s scheme humans rely on natural resources for material needs alone. In actuality, we rely on natural resources for a variety of human needs. But experiences of harmony, fulfillment and transcendence (or truth, beauty, and goodness) are grounded in both the social and natural worlds.



From: Daly 1973 in Meadows 1998, <http://www.tosca-life.info/sustainability/definitions>

Ecologist Daniel Botkin argues that the material world does not simply provide capital. Using Thoreau's writings, he illuminates Thoreau's direct observation, scientific study, and openness to new ideas as a formula for outlining what might be humans' relationship with nature. In Botkin's view we relate to nature for material, intellectual, and spiritual reasons (Botkin 2001). Geographer Nigel Clark's insight that we relate to nature as vulnerable beings is important as well. We seek solace in nature, its biodiversity, beauty and grandeur and we, despite our technological prowess, remain subject to it in the form of heavy rains, tornados, lightning, and tectonic activity (Clark 2011). Thus, we relate to nature as a material, intellectual and spiritual resource.

The latter two concerns are minimized in most current formulations of sustainability.⁹ Human lives create meaning beyond labor and beyond control of resources. In fact, part of being human is being vulnerable (spirituality), working directly with natural resources and understanding or seeking to understand them (intellectual). Both inculcate a connection to the natural world (spiritual and intellectual). If prosperity of the human spirit is the goal, labor in a variety of ways, not just for wages but also for aesthetics, health and community welfare, becomes important. Such thinking shifts from policy for productivity alone to policy for meaningful work and meaningful engagement within a larger framework of human society and the environment. It likely entails some form of control or limits on technology as well to create space for human labor, community formation, a sense of vulnerability and transcendence and opportunities for direct observation and study.¹⁰

Conclusion

Due to a confluence of events in the 20th century, Westerners (and many others) finished the century steeped in a deep faith in development, one that did little to promote sustainability. With some distance from our global efforts at eradicating poverty, and promoting development, sustainable or otherwise, we are in a better position than in the past to recognize that little has changed for the better in the global community as a result of 1980s sustainability. To achieve sustainability within the biophysical limits of the planet while maintaining respect for the human spirit and the human need for meaningful work, a more holistic and inclusive understanding of what it means, first, to be human and, then, members of larger societies is in order. Production and consumption are means to an end but not the only mechanism by which society should be measured. In the twenty-first century, concern for both people and planet calls for thinking more deeply and rigorously about the interconnectedness between people and the environment. In so doing, humans and human societies are seen as primarily makers of meaning (goodness, beauty, and truth) in both natural and social realms through a variety of activities, including labor, rather than makers of goods.

A new sustainability paradigm will illustrate consideration of the human spirit and broader human needs by emphasizing human nature. In this view, human nature has a multi-faceted relationship to the environment, both its tangible and intangible resources. Human societies are utterly dependent on the natural world not only for material but also intellectual and spiritual sustenance. Only a holistic view of these relationships will support the flourishing of other species as well as the human species. Such pan-species flourishing is what sustainability seeks.

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Notes

- ¹ Elkington first introduced the triple bottom line of which people, planet and profit are an outgrowth.
- ² The film *Kumekucha* illuminates women's lives in Tanzania during the 1970s during difficult economic times. The subsistence work that women were doing and their relatively new entrance into wage labor alongside men's disenfranchisement from the market economy are clearly visible as legacies of the colonial period.
- ³ Geographer Mark Davison offers one possible definition of a sustainable society as "one where social movements, forms of democracy and the foundations of political action are constantly reworked." This definition promotes social relations organized around politics rather than the market. Beate Littig and Erich Griesler note the possibility of adding "a cultural-aesthetic, a religious-spiritual, or a political-institutional pillar."
- ⁴ A similar approach to sustainable development can be seen in the Kyoto Protocol and Copenhagen Commitment. In both cases, it was recognized that less industrialized countries had a right to develop along lines similar to the more industrialized, carbon-emitting nations, Clark 2011: 112.
- ⁵ The term "sustainable development" was already in use but the UN document popularized it. The 1980 World Conservation Strategy authored by the World Conservation Union (IUCN), the United Nations Environmental Programme (UNEP), and the World Wide Fund for Nature (WWF) used the term. Robinson 1993: 20.
- ⁶ See also p. 46 for the first strategy for achieving sustainable development, "reviving growth."
- ⁷ Anthropologist Jeremy Keenan provides a great example of how one institution, deeply involved in promoting the idea of sustainable development was not able to bring the legs of the triangle together in its own work. He notes that following the UN Rio Conference on Environment and Development, "the World Bank set up a special fund, the Global Environmental Facility to allocate financial assistance to countries that showed their willingness to comply with the new international charter in matters of biodiversity conservation and environmental policies.... As a parallel process, the 1990s saw the World Bank pursuing its own socio-economic agenda of putting 'poverty alleviation' at the top of its priorities." Keenan 2013: 45.

- ⁸ See a variety of documents at www.worldbank.org as well as Rist 2008:190 for NGO approaches to environmental aspects of development. The Conventions on Climate Change and Biodiversity remain active.
- ⁹ Erick Keys notes that Donald Worster is concerned about the anthropocentric nature of sustainable development. He is more comfortable with the opposite approach that nature has intrinsic value, apart from what humans have normally associated with it. Thus, Worster “calls for an ethical and aesthetic relationship with nature.” While the interpretation here is anthropocentric it also recognizes an aesthetic and spiritual relationship to nature that is beyond our control. The proposal here seeks to move beyond the anthropocentric/intrinsic dichotomy to a view of nature and humans’ relationship to it that is grounded in evolutionary biology and long-term history. Keys 1998: 82. Such an approach also assumes some level of biodiversity preservation for maximum human benefit. See Robinson 1993: 21.
- ¹⁰ Erick Keys is quoting Michael Redclift noting that “Societies moving toward sustainability control technology and consumption in order to satisfy basic needs, not to gather maximum profits.” Keys 1998: 81.

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