

SUSTAINABLE ECONOMY I:

DEFINITION AND FIRST PRINCIPLES

Warning Signs

From my observations and readings, I have come to the conclusion that an economy is not sustainable if it:

- is dependent upon high rates of consumption of our natural resources (depletion of our natural capital);
- overloads the natural ecological sinks with the bi-products (wastes, pollution) of our development and production processes;
- undervalues (or disconnects with) the ecological services provided by our environment;
- is based on seemingly unlimited consumer spending, which is so highly dependent upon consumers using their access to credit;
- promotes suburbanization and extensive residential areas (depletion of social and cultural capital);
- promotes the use of private transportation (depletion of natural capital);
- marginalizes agricultural land (depletion of natural and social capital);
- overvalues property and undervalues human and social capital; and
- promotes the concentration of power and wealth in the hands of a few.

The above list, in my judgment, reflects today's economy, an economy which is heavily addicted to cheap energy. We have been high on the effects of the consumption of ancient sunlight (fossil fuels) for 150 years and there are serious concerns being expressed about the continued availability of fossil fuels in the short and long term. An often-discussed issue today is: "Have we reached peak oil?" There is substantial disagreement among so-called experts about how much oil we have left, but there is no disagreement on the daily rates of consumption of our supplies of oil and natural gas. There is also no disagreement on (a) which countries are the largest consumers of fossil fuels and (b) what the impacts of increasing second- and third-world consumption will have.

It seems logical to me that we need to replace this static, inefficient economy with an economy which: (a) promotes conservation and protection of our natural resources, (b) cleans up the ecological sinks which we have overloaded with waste and pollution, (c) promotes clean air and water, and other ecological services, and (d) builds upon our human, social and cultural capital. Is this attainable? Is this desirable? I believe that it is, notwithstanding the vagaries and limitations of human nature, and the reluctance of government and industry to engage in meaningful discussion and swift, effective action.

Western Economies

Most western economies are nested within the framework of capitalism, and there are many who believe that economies in western capitalism are not sustainable. Currently, capitalist economies are essentially extractive of the natural capital upon which such economies depend for productivity. As we have seen in many countries, a capitalist economy can also be exploitive

of the societies (human, social, and cultural capital) within which such economies operate. If we are concerned about ecological integrity and social equity, it is apparent that society must develop and implement public policies and regulations and impose them on the economy to ensure that the economy serves the long-term needs of society. As we have also seen in many countries, those segments of society who benefit from economic growth have been able to unduly influence public policies to support maximum growth. There has been little attention directed towards ecological or social sustainability for the future. Not much has changed over the past 30 years – environmental protection and social equity and justice are still seen as constraints and barriers, not priorities, to the public policy development process and to sustainable development.

The Rise of Corporatism

If an economic system is to work effectively, individuals must make their own economic decisions and accept personal responsibility for those decisions¹. Two of the fathers of capitalism^{1,2} warned of the possible concentration of wealth and power in the corporate sector, with the resultant reduction or loss of personal incentive or ability to be involved in public policy decision-making. It seems that this warning has merit today as well. As capitalism has evolved through the processes of industrialization and corporatization, people have been discouraged (sometimes accidentally, sometimes covertly and sometimes overtly) from direct, personal involvement in both economics and politics. I believe that we now rely too much on politicians and so-called economics experts to ‘call the shots’ in today’s world. Thus, we have seen the rise of what Ikerd³ has defined as corporatism.

For Ikerd³ corporatism means that:

“...we participate in society as members of groups, which not only represent us but also exert control over us. Corporatism means that we participate in the economy, not as individuals but as members of organizations – as workers, owners, or managers of corporations. Corporatism also means that we participate in the political process, not as individuals but as members of organizations – as members of labor unions, corporate business organizations, political action committees, or other special interest groups. Corporatism means that we let someone else make our economic and political decisions for us.” (pp. 16-17)

The situation today is that there is a serious disconnect between decision-making and corporate ownership, and the responsibility that accompanies such ownership. The evolution of corporatism has resulted in an ever-increasing demand for: natural and human resources for companies; ease of access to both to achieve the corporate bottom-line goals; and a gradual decrease in corporate responsibility for the decisions influencing their utilization of both. If there is any doubt of this, think about the continual lobbying of government to reduce ‘red tape,’ the corporate financing of political campaigns, and the almost unfettered promotion of continued economic growth in every campaign and every political decision.

Thanks to Ronald Reagan and Margaret Thatcher, most capitalist countries have adopted the Reagan-Thatcher neo-conservative economics philosophy. I believe that we can include the Canadian and British Columbia governments as well. Thus, we have seen an increasing focus on

¹ Smith, A. 1776. Wealth of Nations. Prometheus Books Great mind Series, Amherst, MASS (1991).

² de Toqueville, A. 1835. Democracy in America. Bantam Books, New York, NY (2000).

³ Ikerd, J. 2005. Sustainable capitalism: A Matter of Common Sense. Kumarian Press, Inc. Bloomfield, CT.

government 'de-regulation' – (a) removing so-called government restraints (flogged as 'red tape') on the private and corporate economies, and (b) cutting government costs by privatization of government functions, downloading of programs, and reductions in the government payroll. In essence, governments today seem to have little interest in or ability to either constrain corporate consolidation of power and wealth, or to protect natural and human capital from corporate exploitation. Despite their words to the contrary, our governments have found it too easy to forsake their social contract with our present and future generations. The first (and often-times the only) criterion utilized in decision making is contributions to economic growth.

We hear a great deal from the corporate sector about the need for centralization of wealth and power to ensure global competitiveness. We also hear a great deal about the natural trend to globalization and the growth of multi-national companies. As we have seen over the past 20-30 years, the trends to centralization and globalization have resulted in governments losing a certain degree of their power, losing the ability (and interest?) to protect our natural and human capital from corporate exploitation, and a diminishing importance of communities and community decision-making. It is time for local communities to look seriously at what higher-level governments are or are not doing for us and to exert more control over our local issues.

Change is Necessary – Planned Change or Revolution?

There are some who believe that a revolution is coming – either country by country or globally. Why? There appear to be a number of reasons, the most obvious include:

- the triple threats of decreasing fossil fuel availability, climate change, and increasing social inequity are becoming worse each year;
- we know that developing countries are craving a First World lifestyle;
- we know that there is a growing gap between the rich and the poor people of the world;
- the global economic/financial systems are in step with the corporatist agenda but out of step with the principles of sustainability and society's well-being; and
- globalization has evolved into a form of economic imperialism harmful to many millions of people.

At the very least we can foresee change, indeed, substantial change. Some people are expecting that this will translate into a global mess or into national revolutions which deteriorate into violence. There are a few trains of thought about dealing with change.

Business as Usual: Proponents of this 'steady as she goes' approach include the leaders of most major manufacturing corporations, fossil fuel companies, utility companies, and our governments. This approach is obsessed with scientific technology and human ingenuity, with individual self-interest as its underlying philosophy. One of its key principles is that of substitution – we believe that the world will never deplete its resources because the free market will reveal an alternative (a substitute) – technology and human creativity will always solve our problems. It appears that supporters of this approach firmly believe (or fervently hope) that humanity has little to do with global climate change.

Over the past 60 years or so, we have treated Nature as a garbage dump – the free market has been able to be successful only because it has been able to dump the refuse, toxins and waste of manufactured goods and services into the air and water as well as on and under the land, and pay little or nothing for this industrial footprint on the environment. People and other organisms living near, downwind, or downstream from these dumps are paying the price,

especially in terms of health and well-being. To generate energy, we have promoted the use of almost anything which will burn, regardless of the environmental consequences or concern about the availability of resources for our descendants.

Fuel sources for this approach are largely non-renewable oil, natural gas, coal and uranium. In this paradigm, most sources of the oil and gas are complicated by a number of geo-political issues, not the least of which are economic imperialism and the rise of terrorism. Future non-renewable fuels are expected to include the lower quality oil extracted from Alberta tar sands and oil shale in western North America.

Replacement – Constraining Change: This is again a ‘status quo’ or ‘business as usual approach.’ The plan in this approach is to simply replace non-renewable fuels with renewable fuels, and to continue with the capitalist system and its underlying values of competition and infinite growth. Many think that clean energy technology is available – it simply needs to be implemented. We have all heard the rumours that corporations and their friends in government have deliberately withheld new technologies from the market. We see and hear a great deal about how harnessing solar and wind energy and producing biofuels will solve our energy supply problems. There are those also promoting a shift to burning ‘clean’ coal and other fuels such as coal-bed methane. There seems to be a delusion that all we need to do to survive is to improve energy efficiencies – forgetting (ignoring?) two important things: (i) the fact that as efficiencies improve, consumption increases; and (ii) the costs of production for these ‘new’ energy sources will be equal to or greater than the value of the energy produced.

One of the major flaws in the ‘business as usual’ approaches is that they both seem to ignore rates of consumption. People who support these approaches do not believe that they are accountable for the energy crisis and climate change – it is the responsibility of governments and corporations to make the necessary changes.

Another thought to consider is that resources do not have any economic value unless or until they become scarce and their economic value is directly related to the degree of scarcity. Thus, economics can provide little if any guidance to the use of resources until supplies are depleted or quality is degraded to a point at which the resource becomes scarce or non-usable. Also, the economic rate of usage of these scarce resources is determined by their value to individuals, i.e., their private value, not their value to society in general and certainly not their value to future generations.

Rehabilitation – Changing Our Highly Consumptive Life Styles: The past 150-year period has seen the evolution of an addictive fascination with oil-based machinery, resulting in excessive resource consumption. This has led to massive global inequity and potentially catastrophic climate change. The first priority in this approach is rehabilitation – the need to drastically reduce consumption of fossil fuel energy and products derived from fossil fuels. This means buying less, using less, wanting less, and wasting less – cutting back and downsizing our lifestyles. The word ‘conservation’ is often used in this context but conservation implies recycling, using more efficient products (e.g., the new types of light bulbs, hybrid cars, biodegradable packaging, etc.), and reducing the use of particular fuel resources when, in fact, the answer may lie in changing fuel sources completely. Under this approach, current conservation efforts are insufficient or non-existent.

Those who support this approach believe that permanent societal change is required to reduce the consumption of dwindling natural resources in order to control and mitigate climate change

impacts. They are calling for a resurgence of local communities as the alternative to the heavily-urbanized and corporate way-of-life so dominant in our society. Will this mean a reduced standard of living? As measured by our current criteria (e.g., GDP), it probably will....but a higher quality of life should evolve.

Those who support this approach also believe that there must be a substantial reduction in the human population to levels which can be considered sustainable. There is a certain logic in reductions in population and resource-consumption levels resulting in lower pollution rates, perhaps to the point at which we will be able to reduce the impacts on our ecosystems and landscapes. But reductions in population levels will not happen for quite some time, if ever.

Globalization: Globalization is basically a process through which large corporations have moved manufacturing facilities and jobs around the world to obtain the cheapest labour rates while avoiding as much as possible the taxation, environmental, and labour constraints and regulations imposed by elected governments. Globalization has been shown to contribute to environmental degradation, increasing social inequity (the breeding ground of terrorism), and excessive (ever-increasing) usage of energy. The majority of the world's people are living in poverty and a millions are near death from starvation. A corporation's global objectives have little to do with the well-being of people anywhere and a lot to do with the bottom line, i.e., shareholders' profits. Thus, the goals of globalization are largely contrary to the interests of local communities.

Massive consumption of fossil fuels has been one of the significant causes of increasing climate deterioration globally – it is fossil fuels which have fueled the growth of globalization. Humans lived on this planet in a sustainable way for many millennia. When cheap and easy fossil fuels became available, the value system of an increasingly affluent humanity moved from a focus on community relationships to an emphasis on the acquisition and consumption of material goods.

We have changed from being citizens to being consumers.

To many of us, consuming more and more products and services has been the critical measure of both national and personal success, and has even been equated with personal freedom. A growing economy has come to mean affluence, abundance, success and progress, what many believe to be the core values of our current society. Examining any political campaigns will illustrate this quite clearly.

Will we accept changes which result in fewer goods and services, and more limited choices? Will this not be viewed as failure? Undoubtedly this will be a common conclusion reached by many. But isn't the ultimate failure of this approach the fact that western lifestyles are destroying the inhabitability of the planet and are pushing the poor of the world to the edge of survival?

Change is Necessary

A fundamental flaw in capitalism is its lack of attention to the need to continually renew, regenerate, and reproduce the natural and human resources which must support productivity over the long term³. Economic investments today are investments in more efficient means of extraction or exploitation, not investments in renewal or regeneration³. Can we succeed in developing a new sustainable economy by simply fine-tuning or rebuilding current economic thinking? It doesn't appear so. The daunting challenge, as many politicians may see it, is to devise a new approach to the economics of sustainability: to define the basic principles of

sustainability, and to identify the necessary operating strategies for a sustainable economy. I do not believe that our current roster of politicians, federal or provincial, is up to the task.

The discipline of economics has been referred to historically as a social science³. The founding fathers of economics (e.g., Adam Smith, Thomas Malthus) were very much concerned about the distribution of wealth and the economic welfare of 18th-century working people, the hungry, the poor and the oppressed. Economics was viewed as a means of helping to build a stronger society and of pursuing happiness. Classical economics has never held that a strong, growing economy is necessary for a strong society, or that competitive markets equate to a moral and just society, as we hear preached to us today. They viewed the economy as only one part of society – a strong economy sits on a firm social and moral base. Classic economists saw economics as a life science – a dynamic, holistic, individualistic, and evolutionary system.

Social and environmental concerns are considered as outside the realm of our modern approach to economics. Bringing such concerns inside modern economic planning/development processes generally has resulted in the compromising of social and environmental values, sometimes to the complete detriment of both. A serious disconnect has emerged over the past many years – our relationship with our planet and our relationships with each other have become irrelevant in the context in which economic decisions are made. This is an interesting disconnect because our economy is totally dependent upon our natural and human resources. Also, sustainability is based on the concept of meeting equitably the needs of both present and future generations. It is quite obvious: economics is rooted in the present – the individual here and now. Thus, if sustainability is our goal, all economic planning and development decisions must be made within the context of social and environmental needs. The old thought that creating business and wealth is the prime goal of our economy must be rendered passé.

Defining the New Sustainable Economy

My preferred working definition of a “sustainable economy” is:

An economy is a living system – the physical embodiment of a specific pattern of economic relationships, and these relationships exist among living entities. Economies are created by societies to meet the needs of societies, and societies are made up of people. People, as workers, consumers, and citizens, are living organisms. Living organisms are essential elements of the natural ecosystem, which is the ultimate source of all economic resources.³

The economics of sustainability are profoundly related to questions of basic ecological values, basic human values, relationships between humanity and nature, and relationships among individuals within society. Economies must be recognized as tools for society to achieve sustainability, not ends in themselves. Any system of economics which ignores these basic issues is not sustainable.

Goal of the New Sustainable Economy: The goal of the new sustainable economy would be to:

- sustain a desirable quality of life by facilitating relationships among people and between people and their natural environment.

Basic Principles of Sustainability: Ikerd³ proposed four first principles of sustainability: ecological integrity, social justice, economic security, and inter-generational equity. Ikerd's

description of each of these first principles is focused on a human-centered concept of sustainability. I contend that, in order for sustainability to work most effectively, the concept and its strategies must be ecologically-centered:

(1) Ecological integrity:

- All life forms on our Planet must be respected and their needs accommodated.
- There must be no net loss of biological diversity and productivity in our ecosystems and landscapes because of human activities.
- It must be recognized that growth and development occur within ecological limits and are ultimately limited by the carrying capacity of ecosystems and landscapes.
- No person, company or government has the right to pollute or destroy the environment within which another person must live, work, and/or play.
- No person, company or government has the right to pollute or destroy habitat for the other flora and fauna on our Planet Earth.

(2) Social justice:

- All people are granted equal dignity and worth.
- No one person or organization shall have arbitrary power over any other person.
- Each person is entitled to an equal voice in the processes of governance.
- No one should be poor or homeless because of social inequity or economic exploitation.
- Everyone must have access to the wealth (including the public services) derived from publically-owned natural resources.
- Social and cultural diversity must be valued.

(3) Economic security:

- People must be protected from economic exploitation (including inordinately low minimum wages and poor, unsafe working conditions).

(4) Intergenerational equity:

- People of future generations must be afforded the same social, economic, and environmental rights afforded to the people of the current generation.

Can these basic principles of sustainability be applied to a sustainable economy? I believe that the answer is a resounding “Yes!”

Operating Strategies for a Sustainable Economy

Sustainability is inherently individualistic, site-specific, and dynamic – the requirements for sustainability will thus vary across different ecosystems, landscapes and communities at different times. Individuals and communities should be encouraged to strive to enhance, not just sustain, the quality of life in their communities through the pursuit of the common good. All people must be encouraged to pursue their individual self-interest, as long as their private benefit is not achieved at the expense or discomfort of others.

Much of the public sector of society today is preoccupied with largely politically-motivated subsidization of individual and corporate interests rather than the protection of individual rights or the pursuit of the common good. The private sector of today’s economy is not truly competitive and thus it does not ensure economic fairness in the individual pursuit of self-interest. Thus, we do not have an effective system for integrating ecological, social and

economic decisions into a holistic pursuit of sustainability, happiness and quality of life. We have no record of success.

Human societies must recognize and respect the laws and limits of Nature, and recognize the power of Nature to limit any species, including humans, who try to appropriate the total resources of the earth for its own benefit. Some operating strategies for a sustainable economy might include:

Ecological Integrity:

- (1) Ecological decision-making must be employed, i.e., all municipal/government and business decision-making processes must be integrated into a framework of environmental goals and needs, and **within ecological limits**.
- (2) Polluting and destroying ecosystems and landscapes on our Planet must cease.
 - Stop the progressive buildup of detrimental substances extracted from the Earth's crust (e.g., heavy metals, products from fossil fuels).
 - Stop the progressive buildup of harmful chemicals and compounds produced by society (e.g., CO₂, carbon monoxide, methane, dioxins, PCBs, and radioactive waste).
 - Stop the continued physical degradation and destruction of nature and natural processes (e.g., over-harvesting forests, paving over critical wildlife habitat, over-fishing salmon stocks, degradation or salinization of agricultural lands).
 - Sensitive and at-risk species, ecosystems and landscapes must be protected against human-caused alteration or degradation.
- (3) Renewable, reliable, and clean sources of energy must be developed and used.
- (4) Activities and processes which use materials in continuous cycles must be adopted and promoted.
- (5) Ecological change resulting from natural phenomena (e.g., weather and storms, earthquakes, climate change, or solar activity) must be accommodated within our ecological planning framework.

Social Justice:

- (1) Socially-conscious decision-making must be employed, i.e., all municipal/government and business decision-making processes must be integrated into a framework of social and cultural goals and needs.
- (2) Through sustainability education, we must have shared and mutually respected values amongst all members of the community.
- (3) People are entitled to safe working conditions and an adequate level of income.
- (4) The integrity and sustainability of other communities must not be compromised.

Economic Security:

- (1) The best use of local efforts and resources must be pursued, i.e., striving for local self-sufficiency and nurturing solutions at the local level.
 - Promote the protection of local water supplies, and ensure the local availability of clean drinking water.
 - Promote the domestic use of gray water and rainfall.
 - Promote the protection of quality agricultural land, sustainable local food production and marketing, an local investment in food production and processing.

- Promote local investment in alternative energy systems.
- Promote local investment in community infrastructure developments or upgrades.
- Promote local production and purchase of goods and services.

Intergenerational Equity:

- (1) The life and well-being of future generations must not be compromised by poor environmental management by the current generation (seventh generation philosophy).
- (2) Our activities must not compromise the social, cultural, and economic possibilities for future generations.
- (3) Ecological change resulting from natural phenomena (e.g., weather and storms, earthquakes, climate change, or solar activity) must be accommodated within our ecological planning framework so as not to compromise the natural capital available for future generations.

Measures: ‘Standard of Living’ or ‘Quality of life?’

Economists and politicians tend to bouts of chest-thumping when they talk of our standard of living, amongst the highest in the world. Others talk about our decreasing quality of life. Are these two concepts identical? Many people are confused by the discussion, sometimes seemingly rhetorical, surrounding either term. It is important to understand the difference when one is considering implementing a sustainable economy because, in the view of many, our standard of life is not sustainable, and improved quality of life will result from a truly sustainable economy.

Standard of Living: ‘Standard of living’ is a measure of material comfort as defined by the goods, services, and luxuries available to an individual, group, or nation. It can also be defined as the financial health of a population, as measured by the quantity of consumption by the members of that population. The measure most frequently used to estimate standard of living is gross domestic income per capita. The goal of western economies appears to be to strive for the highest standard of living globally. One drawback to the standard of living measurement is that it does not take into account some factors which are important but hard to quantify, such as environmental, social, and cultural impacts.

Quality of Life: The concept ‘quality of life’ has individual, social and moral dimensions and is much broader than the concept of ‘standard of living.’ It deals with the physical, emotional, and spiritual needs which must be met to sustain the body, mind and soul. People need to live lives of purpose and meaning; people need a sense of spiritual connectedness with something which rises above self and others. Quality of life also reflects the degree to which a person enjoys the important possibilities of his or her life, the possibilities which result from the opportunities and limitations each person has in his or her life, and which reflect the interaction of personal and environmental factors.

Three major life domains can be identified: Being, Belonging, and Becoming.⁴

“The **Being** domain includes the basic aspects of ‘who one is’ and has three sub-domains. **Physical Being** includes aspects of physical health, personal hygiene, nutrition, exercise, grooming, clothing, and physical appearance. **Psychological Being** includes the person's

⁴ www.gdrc.org/uem/gol-define.html

psychological health and adjustment, cognitions, feelings, and evaluations concerning the self, and self-control. ***Spiritual Being*** reflects personal values, personal standards of conduct, and spiritual beliefs which may or may not be associated with organized religions.

Belonging includes the person's fit with his/her environments and also has three sub-domains. ***Physical Belonging*** is defined as the connections the person has with his/her physical environments such as home, workplace, neighbourhood, school, and community. ***Social Belonging*** includes links with social environments and includes the sense of acceptance by family, friends, co-workers, neighbourhood, and community. ***Community Belonging*** represents access to resources normally available to community members, such as adequate income, health and social services, employment, educational and recreational programs, and community activities.

Becoming refers to the purposeful activities carried out to achieve personal goals, hopes, and wishes. ***Practical Becoming*** describes day-to-day actions such as domestic activities, paid work, school or volunteer activities, and seeing to health or social needs. ***Leisure Becoming*** includes activities that promote relaxation and stress reduction. These include short-term activities such as neighbourhood walks, and family visits, or longer-duration activities such as vacations or holidays. ***Growth Becoming*** activities promote the improvement or maintenance of knowledge and skills.”

The quality of life of a population is an important concern in economics and political science. As we have seen, it is measured by many social and economic factors. A large part of the quality of life is the standard of living, the amount of money and access to goods and services that a person has – these numbers are fairly easily measured. Others, such as freedom, happiness, art, environmental health, and innovation, are far harder to measure. This has created an inevitable imbalance as programs and policies are created to fit the easily available economic numbers while ignoring the other measures which are very difficult to plan for or assess.

Expected Outcomes of a Sustainable Economy:

If there is logic behind developing and implementing a new, sustainable economy, we must establish expected long-term outcomes of our actions. These outcomes will vary according to community and the people involved in the process but there are some general outcomes which should affect all communities. These include:

- improved quality of life;
- improved environmental health;
- enhanced biological diversity;
- improved social equity and cultural diversity;
- improved food security;
- improved economic security for local people and small businesses;
- greater economic equity;
- lower crime rates; reduced drug and alcohol abuse; reduced abuse of women and children;
- increased role for people and communities in governance;
- increased community economic, social and political strength; and
- local autonomy with regard to energy, infrastructure, water supply and other natural resources.

Expected Barriers to a Sustainable Economy:

It would be naïve of me to suggest a list of anticipated outcomes of a sustainable economy without some consideration for possible barriers to success.

- human apathy (lack of interest or knowledge), fear (based on uncertainty), or reluctance to change (disagreement with plan of action);
- human reluctance to share, change lifestyles and reduce their standard of living;
- senior government reluctance to decreased control (increased uncertainty around government revenues);
- government intervention (concerns around political control);
- continuing national and international forces of centralization and globalization; and
- corporate reluctance to cooperate/collaborate.

Next Steps

Important questions arising from this discussion are, “How do we build a sustainable economy?” “How do we utilize community-based values and needs to build sustainable economies?” “Do sustainable economies fit within the mold of capitalism?”

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