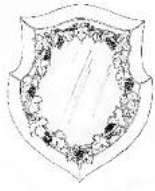


Chapter 1

Without Vision, the People Perish

Collecting the Vision

Events in the early 1990s caused me to realize that our economic system had passed its best-before date. As the decade dawned, the volume of economic activity had been growing for years. Each year, new all-time records were being set for the production and consumption of goods and services. Then, for a couple of years, the economy did not grow; it just churned away at the greatest volume ever known. I was astonished to discover that many people were experiencing serious hardship because the volume was not expanding.

The way the system is set up, it is not enough to produce huge amounts of goods and services. The volume must always be getting bigger. This is a critical problem on a finite planet where we are already stretching material limits.

Ever since realizing that increasing hardship can accompany record economic output, I have been studying economics, trying to understand why. What is it about the way we organize our mutual provision — the economy — that causes hard times if we are not always producing greater total volumes?* How might we recreate the system so that we can prosper without destroying ourselves? This book represents what I have found.

No person provides directly for all of his or her own needs. The economy is the process by which people exchange one sort of help —

* From the start, I want to demystify the term "economy." You will see it used interchangeably with the phrase "mutual provision." Economic exchange is a basic element of human life.

goods they make or services they perform — for those of others. Economic exchange need not be based on selfishness or exploitation. When two people love one another, the help they provide each other is a basic form of economics.

While economic exchange is the foundation of human communities, we are stuck in a model that is on a collision course with planetary limits. To adopt another model, we have to overcome the perception that the present structure is the only form possible. The human family has come to what is probably the most critical choice we will ever make. It is now necessary to question what we are trying to accomplish.

A Fundamental Change

> *We have crossed a monumental historical threshold. Because of the fivefold economic expansion since 1950, the environmental demands of our economic system have filled up all the available environmental space on the planet. In other words, we now live in a "full world."*
>
> ~ David Korten, *When Corporations Rule the World*, 1996

Throughout our entire existence, until some time in the last century, humans were an insignificant presence on Earth. The Earth was almost "empty" of humans. There was huge potential for expansion. And expand we did. At the beginning of the third millennium, the Earth's ability to support humans is "full," or close to full. Some say it is more than full.

Until recently, it mattered little what we did to the Earth. There were not enough of us, and the tools we used were not powerful enough to cause ecological problems on anything but a local level. This is no longer so. With over six billion people using all manner of powerful equipment and chemical ingenuity, we are having a huge impact on the foundations of our well-being. This is a fundamental change in circumstances that, if we intend to maintain our well-being, requires an equally fundamental change in how we manage ourselves. The perceived need for continuous economic expansion is in direct conflict with the limitations of our planet.

As its title implies, this book looks at three main topics: "Life" refers to the biological perspective of what makes a species successful, "Money" encompasses the history of economic exchange and "Illusion" looks at

the apparent contradictions between the first two, in particular, around the assumption that the economic system must expand forever.

How I Got Involved

In the 1950s, nuclear bomb tests were raising mushroom clouds above the Arizona desert. I was a child and my mother was one of many women from Winnipeg and elsewhere across the Great Plains of North America who collected their children's baby teeth and sent them for testing. Strontium-90 is a radioactive isotope that results from nuclear explosions. When it settles on grasslands and enters the food chain of grass, cows, milk and children, young growing bodies take it in and use it as they use calcium to grow teeth and bones. Strontium-90 was found in our baby teeth, and the evidence made a strong argument for stopping the above-ground testing of nuclear weapons.

I remember my mother reading bedtime stories to us from Rachel Carson's biologically inspired, poetic narrative, *The Sea Around Us*. Years later, when I read Carson's better known book, *Silent Spring*, Mom told me how Rachel Carson was harassed by the scientific community for her "alarmist ideas" about the dangers of broadcasting manufactured poisons into the environment and for suggesting that we should look to the natural world for our models of survival and well-being.

Having learned about natural resources and pollution at my mother's knee, it should come as no surprise that, when I finished my formal schooling, I wanted to do something to help.

While searching for my role, I came across the *Encyclopædia Britannica*'s 1952 edition of *The Great Ideas*. It talked about how ideas occur in the context of what is already known. Every now and then, someone makes a new connection or sees a new perspective and is able to express the evolving view in a way that others can then see more easily for themselves. All individuals have the potential, from their unique perspectives, to see things in a new way and to have new realizations. My writing has since been inspired by the possibility that you, and other readers, might see the ideas I have been gathering and take them forward to better understanding. "Co-intelligence" is the term coming into use to describe the enhanced ability to think, comprehend and innovate that occurs when people open themselves to a free flow of ideas and information between them.

In 1971 I resolved to travel and ask people working on issues about the insights that inspired their efforts to make the world a better place. As a filter for sincerity, I focused on people who felt strongly enough about their work to carry on with little or no expectation of financial gain. (It's not that making money at what one does indicates insincerity, but when one works without personal gain, there is little besides sincerity for motivation.) I traveled across Canada and down the west coast of the US looking for people working voluntarily or not for profit. I would arrive in a city, find the library, look up the community directory, call the contact people from a variety of citizens' groups and explain my interest in their work. On meeting, I would ask what they were trying to accomplish, what they were trying to overcome and what they knew about the way society changes. It was a fascinating Summer.

After that informative journey, I joined a number of other idealistic young people in Toronto and founded the Institute for the Study of Cultural Evolution (ISCE). Together, we continued the study of problems and solutions and how change takes place. The scope of the study was extended to include professional research into the issues that inspired voluntary and non-profit work. The Institute operated for four years and at one point involved more than 20 people.

Among other things, we were looking for cultural items that caused a minimum of problems. Cultural items are techniques people have devised for doing things. The knot used to tie shoes; different types of tools, clothing and shelter; the lullabies sung to help babies sleep; computer programs; forms of entertainment and different ways of organizing projects, large and small, are examples of cultural items. While the cultural items used to provide for basic human needs differ from culture to culture, those basic needs — food, shelter, education, health care, personal fulfillment, etc. — remain the same. By looking at the spectrum of different techniques used and, where there are choices, selecting the ones with the least negative impacts, we could take a large step toward overcoming the problems arising around us.

The most significant outcome from the four years of the ISCE's work was the summary outline that emerged. When the organization disbanded in 1974, I took all the notes collected about solutions and problems and separated them into areas of common interest. After describing the subject of each category with a sentence, I began

Well-being can be sustained when activities:

1 - use materials in continuous cycles.

2 - use continuously reliable sources of energy.

3 - come mainly from the qualities of being human (i.e., creativity, communication, movement, appreciation, and spiritual and intellectual development).

Long-term well-being is diminished when activities:

4 - require continual inputs of non-renewable resources.

5 - use renewable resources faster than their rate of renewal.

6 - cause cumulative degradation of the environment.

7 - require resources in quantities that undermine other people's well-being.

8 - lead to the extinction of other life forms.®

circulating the resulting guidelines as a citizens' view of the opportunities and challenges of our times.

Looking at them a year later, a friend noted that the outline defines what is, and what is not, sustainable.

That our study should culminate in an outline of sustainability made sense when I thought about it afterwards. Long-term well-being (another way to say sustainability) is a natural interest of those whose immediate needs are met. Once the basics are provided for, people aim to secure their well-being, and that of their families and communities, into the future. When something is sensed to be getting progressively worse, some people become concerned, form organizations and take action. The focus of our study was threefold: the problems causing concern, the visions being developed of an order that would not have such problems and the work being done to get from the one to the other. It follows, then, that the summary of a study looking at long-term problems and their solutions would encompass sustainability.

The problems were (and indeed remain) compelling, but the extent to which solutions had been worked out filled me with hope and inspiration. In the years that followed, I produced numerous educational

materials based on this eight-point outline and related details. Always, the outline has been presented as food for thought. You, too, are encouraged to question it.

- Does it make sense to you?
- If it does not, upon what point or points do you disagree?
- For what reasons?
- Is there something missing?

Where, for example, does durability fit in? Recycling resources can be wasteful of energy when the same materials could provide many times as much service if the products made from them were designed to last.

If the basic eight-point framework makes sense, it can be used to assess what you see going on around you and for making decisions about what actions to take.

• • • •

Even in the 1970s, there were many thousands of people working on sustainability issues. As I met with people and read the material they suggested, it became clear that the challenge was broadly understood. Discovering that the overall concern was regularly rebuffed when decision-makers were called upon to take action was disturbing.

Finally, in the Fall of 1983, a glimmer of hope appeared. The United Nations passed a resolution creating the World Commission on Environment and Development. In the words of the Commission's mandate, it was created "at a time of unprecedented pressure on the global environment, with grave predictions about the human future becoming commonplace." The Commission set out to investigate the pressures and predictions.

The chair of the Commission was the Prime Minster of Norway, Gro Brundtland. Her co-chair was the Deputy Prime Minister of the Sudan. The credentials of the 21 Commissioners were equally impressive. Among them were leaders in related ministries of government, research organizations and international, non-governmental organizations. The Commission traveled to every continent and met with governments, academics, industrial leaders, citizens' organizations and concerned individuals.

In April 1987, its report, *Our Common Future*, was released to the world. The report confirmed that we are, indeed, faced with a crisis of

Sustainable activities

1 - use materials in continuous cycles

Pictures from space show our blue and green planet as a small sphere orbiting with its moon in a vast emptiness. A closer look reveals that the layer of materials actually of use to living things is only a very thin film over the planet's surface.

Within this limited stock of materials, any substances needed regularly must, over time, be used again and again. The cycles, which bring the needed materials back for reuse, must either occur naturally, like the cycles of water and carbon, or they must be maintained through mindful recycling programs.

2 - use continuously reliable sources of energy

We are consuming supplies of coal and oil at a far greater rate than they are created. The dangers of releasing all the carbon in these resources aside, their massive use cannot be our habit if civilization is to be a permanent presence on Earth. There is simply not enough of these fuels in existence. The same is true of nuclear energy. The enormous costs and dangers might, perhaps, be overcome, but the raw fuel is, in the end, also limited in supply.

Energy sources that can be relied on over the thousands of years that await the human family include: heat from the Earth's core, tides, the Sun (nuclear fusion at a safe distance) and the wind and water, which the Sun sets in motion. These power sources are abundant, and can be harnessed practically anywhere. With the exception of the problems associated with large dams, these renewable sources of energy have relatively little or no negative environmental impacts.

3 - come mainly from the qualities of being human

Once we have secured the food and shelter necessary for healthy life, worlds of opportunity open up for personal growth and satisfaction. The three Ls — Learning, Love and Laughter — as well as art, music, dance, sport, communication, service and appreciation of the universe, within and around ourselves, can all make life worthwhile. Without harming the Earth, they can provide pleasure, purpose and meaning to our lives.

Non-sustainable activities

4 - require continual inputs of non-renewable resources

Non-renewable resources are available only in limited quantity. Metals, coal, natural gas and oil are notable examples. They can be very useful, even essential, for building a sustainable society, but if our way of life always requires that more and more of these materials be extracted, we will eventually run out. Dependency on more at that point would be disastrous.

5 - use renewable resources faster than their rate of renewal

Renewable resources maintain themselves through natural processes. Some examples are forests, fish stocks, ground water and soil fertility. As long as the rate at which they are used is not greater than the rate at which they grow or accumulate, the situation can remain viable. When the rate of use exceeds the rate of renewal, the stock will become depleted and problems will follow.

6 - cause cumulative degradation of the environment

Certain amounts and types of pollution are cleansed by natural processes. When we create waste that nature cannot handle, or that cannot be absorbed as fast as we create it, pollution builds up, causing problems that become more and more serious as the activity continues. Some pollutants can create serious hazards even when thoroughly diluted. Small amounts of toxic materials, after being absorbed by tiny organisms, can accumulate in the flesh of the creatures that eat them. If these creatures are then food for larger ones, the accumulated toxins are concentrated even further. Through this biological accumulation, some poisons, although thinly dispersed, can be found in dangerous concentrations — for example, in fish from polluted water and in the humans who eat those fish.

7 - require resources in quantities that undermine other people's well-being

The cooperation needed to build a sustainable world order will not come about as long as some groups of people take unfair advantage of others. Inequity often leads to social strife and armed conflict. Furthermore, the people at the bottom of the pyramid of exploitation are often forced by desperation to degrade the

environment around them for day-to-day survival. The degradation of their territories not only makes life worse for them, it also undermines the global systems that provide for those at the top of the pyramid, as well as for those below.

8 - lead to the extinction of other life forms

The web of life is intricate and mutually supporting. However, it is weakened with each life form lost. If we maintain patterns of development that regularly destroy, or significantly diminish, the presence of other forms of life, we progressively undermine our own existence as a part of the global ecosystem. With the loss of species, we also lose genetic possibilities for fighting disease, in people and in food crops, as well as potential new sources of food. In addition to the dangers and loss to people, fair play would acknowledge that other living things have their own right to exist.

proportions unparalleled in recorded history: "We are not forecasting a future; we are serving a notice, an urgent notice..."

> *Many present efforts to guard and maintain human progress, to meet human needs and to realize human ambitions are simply unsustainable — in both the rich and poor nations. They draw too heavily, too quickly on already overdrawn environmental resource accounts to be affordable far into the future without bankrupting those accounts. They may show profits on the balance sheets of our generation, but our children will inherit the losses.*
>
> ~ *Our Common Future,* Report of the Brundtland Commission

The Brundtland Commission, as it came to be known, was not pessimistic. It coined the phrase "sustainable development,"* to identify "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." Based on such development, it asserted that the human family

* While sustainable development has been used in good faith by many, it has been spun around to mean sustaining development — pursuing perpetual economic expansion. Critics of this phrase feel that corporate globalization came about while civil society was distracted by the rhetoric of sustainable development. Because they feel the time we have lost will cost us civilization, some of these critics are understandably angry. My use of the phrase is as originally coined by the Commission.

could yet secure the future if we acknowledge the challenge, and set our sights on resolving it. Social conditions were also highlighted: "Poverty is a major cause and effect of global environmental problems." The Commission wrote, "It is therefore futile to attempt to deal with environmental problems without a broader perspective that encompasses the factors underlying world poverty and international equality." The Commission called for "a vast campaign of education, debate and public participation." By confirming concerns about natural resources and pollution, the Brundtland Report legitimized action. It was okay to respond. And people did. There was an enormous increase in environment-related activity.

One example was the recycling program in the city of Kingston, Ontario. Some years before the Brundtland Report, while developing the Guideposts for a Sustainable Future discussion kit, I was invited to conduct a workshop at the inaugural meeting of the Kingston Environmental Action Project (KEAP). After the meeting opened with a "popular education" discussion, KEAP was founded and those present decided to make the institution of curbside recycling in Kingston its primary project.

They developed and submitted a proposal that was turned down by the Kingston City Council. In each of the next four years, they presented ever-more sophisticated proposals, with the same outcome. Then in 1987, with the Brundtland Report saying we really do have to deal with environmental problems, the KEAP proposal was accepted. (Within a few months, curbside recycling enjoyed upwards of 80 percent participation.)

We had all learned the 3 Rs — Reduce, Reuse, Recycle — as a key to easing the problems at hand. In the late 1980s, with legitimacy finally given to these concerns, recycling expanded rapidly. The Kingston example was one of many that achieved participation rates of 80 and 90 percent within months of program start-ups. The volume of materials being recycled skyrocketed.

Of the 3 Rs, it was clear that reduction of personal consumption and reuse — keeping items in use for longer periods of time — could be even more effective than recycling in the effort to reduce resource consumption and waste. The increase in recycling could be measured because it involved physical substance. Reduction and reuse, as acts of omission, could not be measured. It is, nevertheless, probable that they also increased substantially.

Whether or not the recession that followed was directly related to reduction and reuse efforts would be an interesting research topic. From my perspective, it was Reduce, Reuse, Recession. Reduction and reuse are directly opposed to the expansion of production and consumption. This is the moral dilemma of our times.

Was it this conflict of goals that triggered the October 19, 1987 stock market crash, known as "Black Monday?" The October 19th date for the discussion of the "urgent notice" at the United Nations had been set six months earlier when the Brundtland Report was released. The discussion took place, but it was obscured from public view by extensive coverage of that day's stock market crisis. Could preemptive sales of shares in offending industries have triggered the computer-enhanced crash that erased one-third of the stock market and shook the financial world? This would be another topic worthy of a doctoral thesis. Whatever the causes, the events that followed illustrate a point of critical importance.

Popular concern for environmental adaptation was starting to transform civilization. Once the cause gained legitimacy, momentum grew rapidly. It is, and was, well within our knowledge and ability to develop satisfying ways of living that fit within ecological bounds. People were ready! Why did we stop?

When our "leaders" recognized the direct interference reduction and reuse posed to the goal of perpetual economic expansion, legitimacy was quietly diverted away from them.

Whether consciously, in support of recognized interests, or subconsciously, as a result of deep allegiance to familiar goals, reduction and reuse were seldom mentioned in official circles after that. Efforts to solve the problems of poverty no longer looked at moderating consumption in the overconsuming world so that present production could be shared more equitably. The emphasis shifted back to solving the problem by promoting massive expansion of the global economy.

For the established order, this solved the moral dilemma. We could not reduce and reuse in good conscience when the goal of society is to expand production and consumption. Recycling is okay because it expands commerce and provides resources for ever-hungry production machinery. Reduction and reuse clearly inhibit growth. Stimulating a review of the values that are at odds here is a central goal of this book.

This is the conflict of values that compelled me to study economics. How can a system that effectively enables thousands of millions of people to cooperate in mutual provision not be sensitive to the resource limits and pollution problems that threaten the foundation of its existence? Why must we forever struggle to expand rather than enjoy our success?

This study soon confirmed the astonishing discovery identified at the beginning of this chapter: for society to remain healthy under the present economic structure, the volume of economic activity must always get bigger.

Two contrasting views became apparent. Those who see human well-being from the ecological perspective say we have to establish food security for a stabilized population and halt the accumulation of toxic chemicals in the environment. They suspect that perpetual economic expansion, like perpetual motion, is impossible and that, sooner or later, we will have to address our economy's addiction to "growth." Better to do so before resources are further depleted and the planet even more overwhelmed with waste.

On the other hand, those with faith in the present economic system counter by asserting that we can, and will, always be able to expand economic activity. We need only accept their faith, eliminate public control over services and remove any regulations that inhibit the effective functioning of self-interest, markets and money. In other words, people, trying to get as much as possible for themselves, will provide ample motivation to accomplish anything necessary, and because a growing economy will make us rich, we will have money to spend on solving problems.

The ecological and the conventional economic perspectives are very different. Each will be detailed in the chapters ahead. Following that are proposed solutions that would combine what remains helpful from the conventional economic perspective with the new understanding of (what David Korten identified above as) our "full" world. As you will see, there is enough vision to make the world work for all who live here, and for the generations to follow. First, however, a look at some of the dynamics with which we have to work.

Hope and Hindrance

People are remarkably perceptive, intelligent and creative. Creatures with far less ability have lived on Earth for hundreds of millions of

years. Humans should expect far more. While we wield enough power to destroy the Earth's ability to support us, we can, instead, use our knowledge and skills to establish satisfying ways to live that can evolve for as long as the Sun shines.

The extent to which people are aware of the problems and can see where solutions lie has given me enormous faith in human ability. By extension, I have a strong faith in democracy. Not democracy as in having an opportunity every four years or so to choose rulers, but democracy where issues of concern are considered by all who are interested, and where the thoughts arising are shared and discussed. If we can tap into the huge awareness available in the population and the goodwill of those who care about the future, we can secure our place on this planet for countless generations to come.

But the problems are huge. They are far greater than any individual or organization can grasp, let alone deal with. Yet, if we can align the collective ability of the hundreds of thousands of people who care enough to work towards solving them, we are up to the task.

Why We Will Succeed

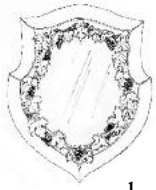
The human species is extraordinary, a prime candidate for a long stay on Earth. We have thumbs with which to hold, carry and otherwise manipulate objects. Our senses of sight, hearing, touch, smell and taste are well-developed. When aided by telescopes, microscopes, Geiger counters, spectrometers, thermometers and other technical extensions, our ability to notice what is going on around us is spectacular. We have a highly developed ability to intuitively recognize patterns in the observations we make, leading to understanding and the ability to predict the consequences of events and actions. We have memory, both individually and through recorded information, with which to bring a vast accumulation of past observations into consideration for problem-solving. We can communicate by speech and through print and other media. Huge numbers of people can share information and pass it forward through time. We also have the creative ability to use the information to plan actions, and the skills with which to make things. These qualities are present in each one of us, and our ability to team up for projects is legendary.

We have applied our talents long enough to know a great deal about how this planet works, what we need and how to provide for

those needs from what the Earth offers. We were well able to provide for ourselves a hundred years ago, and since then we have developed countless new capabilities. There have been very helpful advances in health care, psychology, communication, understanding of ecological systems, physics, cybernetics and the knowledge of techniques by which to grow, design and manufacture useful items.

Uncertainty about the future is not because we lack ability. We are more than capable of providing for our needs without undermining long-term well-being. Why is our sense of caution muted while we are getting into so much trouble? Why do we threaten the integrity of whole ecosystems and see huge numbers of people living in desperate poverty while more goods and services are created each year than has been seen in most centuries past?

These dangers arise because those in control cling to management principles from very different times. In our infancy and youth as a species, we needed only to look after immediate needs: food for tomorrow and to get us through cold or dry seasons, shelter; clothing and the tools to maintain these. We were incapable of significantly disrupting the vast continents of life that surrounded and nurtured us. This has changed. We now significantly impact on practically everything that lives — the atmosphere, soils, lakes, rivers and even oceans. This is the fundamental change of circumstances that requires a fundamental change in how we manage ourselves and our planet. This point cannot be overemphasized. It is now necessary to pay attention to the repercussions of our acts. Our customs, traditions and economic system developed during a period when the thought that we might disrupt planetary balance was absurd. Consequently, these institutions give few clues for solving today's problems, yet, they provide the patterns by which most of our activities are determined. Restructuring these institutions to help us find and maintain balance with the rest of life needs to be a top priority.



A Persean Shield

In seeking solutions, we have to look closely at the problems. The danger here is that because some of the problems have been neglected for too long, they have become frightening.

I find it helpful to remember a story from Greek mythology. The hero was Perseus, and the villain, Medusa. Medusa was a monster, so horrible to look at, that anyone who dared do so would turn to stone from sheer fright. By polishing his shield, and only looking at the paralyzing problem via the reflection he found there, Perseus was able to get close enough to kill Medusa and rid the world of the problems she caused.

Because we are faced with problems that can be paralyzing to look at, we need a shield like that of Perseus. We have to avoid paralysis, yet keep a clear enough view of the problems to deal with them directly.

Two factors can help us face the great challenge. One is the extraordinary nature of human beings described above. The other is our connectedness with others. Strong relationships in one's life multiply one's strength. Personal bonds reinforce the reality that we are not alone. I've frequently reflected on an observation made by John Daveikis, illustrator of my first book, *Bakavi: Change the World I Want to Stay On*. After having traveled in a poor Asian country back in the early 1970s, John observed that, no matter how hard things became for those people, they just huddled closer together in the great love they had for each other, and it was okay.

Primary relationships stabilize us. They are testimony to the web of relationships that bond us together as communities and nations, making us extraordinarily capable of meeting the present challenge. We are an extraordinary species capable of long-term success on Earth. We need only to visualize the task before us and proceed.