

Understanding Whole System Change

Andrew Gaines

As you are probably aware, we live in a global civilisation that is ecologically self-destructing. To avoid the worst of the oncoming disasters – and indeed to have the hope of a positive future for coming generations – we need to change the operating character of our whole society... a whole system change.

Science writer Julian Cribb's *Surviving the 21st Century*, among others, makes the case that humanity is in an ecological emergency. On present trends the survival of civilisation, and indeed of humanity as a viable species, is in jeopardy. The task of our time is to turn things around, to the extent still possible.

It helps to have a goal. Following eco-philosopher Joanna Macy, we might adopt as our goal *transitioning to life-affirming global culture*. A flourishing future!

Whole system change

The needed changes to turn things around are so comprehensive – and so good-hearted – that we may speak of *whole system change*. They include changes in personal psychology, economics, power structures, industrial design and agriculture. Whole system change to a life-affirming culture means *doing everything required to actually become ecologically sustainable*. Nothing less will do.

The idea of whole system change can seem overwhelming to people. This article shows an approach to making it mentally manageable in a way that supports real-world changes. It uses a somewhat different logic than many of us are used to: we start with *core principles* and work out their *applications*.

Although there are many ways to slice the cake, I have boiled the core operating principles of a life-affirming culture down to just two: See what you think.

A life affirming culture will

- Operate for the wellbeing of nature and communities.
- And it will be ecologically sustainable.

In what follows we will explore these two operating principles. We will also develop a Large-Scale Overview of the major drivers of environmental destruction. This overview highlights all the major elements that need to change. It enables people to see how the major factors are functionally interconnected, and that none of them can be neglected if we are to actually achieve sustainability.

But before we get into the details, let's start with some familiar images of whole system change, just to get a feel for it.

Images of whole system change

The shift from *chrysalis to butterfly* is a whole system change.

The shift from peace to war is a whole system change, and *vice versa*. The operating character of the whole society changes during war.

We all changed profoundly as we grew from infancy to adulthood. So much about us changed and yet we are ‘the same’ people. We think differently and behave differently than we did when we were infants.

If we make it, our metamorphosis from a self-destructing society to a life-affirming culture will be the springtime of humanity – a new flowering after a millennia-long period of darkness.

Thinking through whole system change

Creating a viable society will involve millions of us forming a thoughtful understanding of what needs to change – and then getting on with making the changes. So both education and practical action are crucial. Our practical projects become more meaningful when we place them in the context of co-creating an ecologically sustainable, socially just and spiritually fulfilling society.

What follows is an approach to making whole system change intellectually manageable in a way that supports practical real-world changes. It is based on four questions:

- 1 What are the core values of a healthy society – and how can we embody them in society?
- 2 What is the essence of ecological sustainability?
- 3 How does the operation of our society as a whole operate tend to make environmental issues worse, and what are the crucial leverage points for change?
- 4 How can we catalyse a movement to shift the aspiration and practical operation of our society so that we actually become a sustainable global civilisation?

A natural follow-through from exploring these questions is to ask *what (if anything) are you moved to do within your sphere of interest and influence to contribute to the transformative shift?* This is not an academic exercise; humanity’s existential threat is all too real.

I believe that when people think through these topics they will come to very similar conclusions about why and how we need to change. Why? Because these are not

ideological questions but questions about how environmental and social reality actually work.

Considering the above four questions enables people to create a systemic framework that includes all relevant factors. Having such a framework positions people to intelligently assess the pronouncements of major business leaders and politicians (i.e. see through self-serving lies, distortions, and simplistic biased soundbites), and to support constructive leadership when it emerges. It also positions us to exert transformational leadership ourselves within our own sphere of influence.

Question 1: **What are the core values of a healthy society?**

Because it is so useful, I and others have adopted a distinction put forward by futurist Riane Eisler. Eisler distinguishes between what she calls *partnership-respect relating* and *domination-control relating*.

In *The Power of Partnership* Riane Eisler observes:

In the domination model, somebody has to be on top and somebody has to be on the bottom. Those on top control those below them. People learn, starting in early childhood, to obey orders without question. They learn to carry a harsh voice in their heads telling them they are no good, they don't deserve love, they need to be punished. Families and societies are based on control that is explicitly or implicitly backed up by guilt, fear, and force. The world is divided into in-groups and out-groups, with those who are different seen as enemies to be conquered or destroyed.

In contrast, the partnership model supports mutually respectful and caring relations. Because there's no need to maintain rigid rankings of control, there is also no built-in need for abuse or violence. Partnership relations free our innate capacity to feel joy, to play. They enable us to grow mentally, emotionally, and spiritually. This is true for individuals, families, and whole societies. Conflict is an opportunity to learn and to be creative, and power is exercised in ways that empower rather than disempower others.

Partnership-respect relating seeks the wellbeing of individuals and the community. Partnership values find expression in democracy as a vehicle for community self-regulation for community well-being, in the caring aspects of organised religion, and in the growing concern to protect ecological systems. The archetypal form is a mother working for the wellbeing of each member of her family.

Dominator relating uses force and intimidation to establish one's own advantage over others. It is oriented towards conquering rather than collaborating. Archetypal forms of dominator relating include patriarchal fathers dominating their families, and emperors dominating vast territories. The modern trend is wealthy business and power elites pushing to expand the military and develop a totalitarian surveillance state.

Partnership and *dominator* are two contrasting approaches to life that operate on every level of human endeavour, from child-rearing to global governance. The partnership-dominator distinction describes not only values, but also different *ways of organising our behaviour*. We can look at any human relationship or institution and assess whether it operates predominately in a partnership mode or in a dominator mode. It is the *mode of operating* rather than the espoused values that makes the difference.

I believe that a sustainable society must operate on partnership-respect values. It's a no-brainer: we must take care of people and the planet, or self-destruct. The good news is that we have the capacity to transform schools, the internal operations of businesses, and other social institutions to embody partnership-respect values. Many examples already exist.

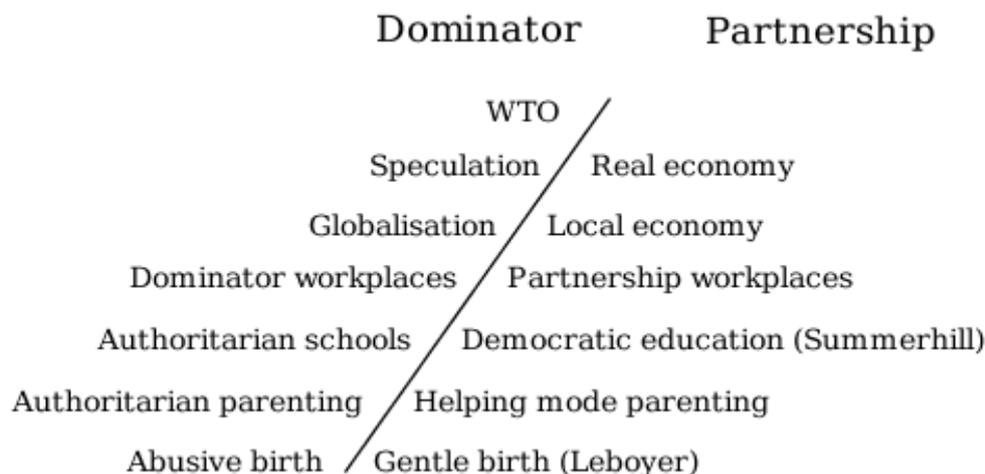
As we shall see, our current dominator style, expressed in the aggressive expansion of trade agreements, economic growth and associated industrial production – all of which serve large corporate and financial interests – is a major driver of ecological deterioration. And obviously if the current generation of hypersonic missiles with nuclear warheads were ever used, it would be the end of humanity.

At a more personal level, aggressive domination-control relating in the form of workplace bullying, spouse abuse and the intimidation of children is a major contributor to the inner unhappiness that produces retail therapy and other forms of excess consumption.

Many aspects of dominator behaviour are truly horrific, both historically and in terms of current events. We have the Holocaust, the atomic bombing of Hiroshima and Nagasaki, the destruction of indigenous peoples, and the American invasion of Iraq, for example. Therefore it is important for people to know that in important respects some parts of humanity are becoming healthier and more balanced, and that there is a strong positive trend that may ultimately set the tone for a positive future.

Different scales of the Partnership-Dominator contrast

A healthy society will operate on good willed partnership/respect values at every level. It can be useful to see how both partnership and dominator play out at different scales.



The foundations of life – prenatal experiences and birth – have the most effect on our later psychological development. All birth is traumatic for the infant. However, we are resilient and can recover from trauma. But if the way we are greeted when we are first born is also traumatic, and if our childrearing is abusive or excessively controlling, we develop psychological distortions that interfere with relationships, social responsibility, and joy in life.

French obstetrician Frederick Leboyer realised that the custom of routinely holding newborn babies upside down and slapping them on the bottom to make them breathe was a form of assault, in terms of the infant's experience.

If you look at the picture the right, it appears that the mother and the two doctors are happy. A successful birth! But look at the infant's face: he is in agony. What a start!



So Leboyer asked himself: *What would be a friendly way to greet newborns?* His approach was quite straightforward: *Let's make the newborn's environment as comfortable for him or her as possible.* So he dimmed down the lights in the birthing room, kept the room warm, and put the infant on the mother's body right away. Importantly, he also delayed cutting the umbilical cord. This gave the infant time to adjust its lungs to the experience of breathing oxygen for the first time.

Since Greco-Roman times parenting in the West has largely been authoritarian and abusive. But psychohistorian Lloyd de Mause observes that to a great extent childrearing has gotten progressively better. Children are no longer put out to inept wet nurses or routinely beaten (although beating still occurs). Many parents support their children the following the children's own interests, rather than attempting to shape them into the parent's expectations. De Mause calls this *helping mode* parenting.

A. S. Neill started a school in England called Summerhill that followed the same principle. Children brought up in this way have a natural sense of calm and well-being, and their intelligence and creativity can operate without internal psychological interference.

Apparently, there is a great deal of authoritarian control and workplace bullying in businesses. But there are profitable businesses that treat their employees with respect, and allow a great deal of individual autonomy. Brazilian industrialist Ricardo Semler describes how he transformed his business in his book *Maverick*.

International trade agreements are designed to increase corporate power, making the wealthy wealthier, but destroying local economies, the environment and democracy

in the process. A life affirming culture, as we shall see, will abandon *economic growth* as is driving value, and instead support localised steady-state circular economies. There are many details here, but Geoff Mosley's *Steady State Economy*, Liz Elliott's *a New Way Now*, and books by David Korten cover the ground very well.

A life affirming culture will have no room for war. This is not because of sentimental idealism. It is because societies that compete on the basis of military power and nuclear threats will ultimately destroy themselves through their nuclear weapons. We are right on the edge now. This could occur by accident, or through the demented decision of a psychopathic leader. Yet today nations are armed, their leaders are antagonistic, and competition for resources will increase.

None of the great powers is likely to believe that they can dare to give up their armaments. The United States, however, could at least withdraw from its threatening positions around Russia and China. That would ease fear, and open up space for negotiation. In the same vein, rather than investing so much in the military, the affluent countries could consciously invest in supporting the internal well-being of other countries.

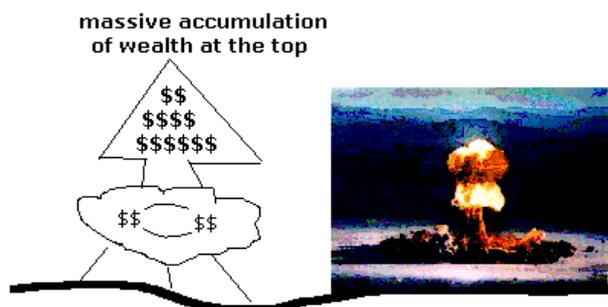
We have well-proven practical examples of how to apply partnership style at the concrete levels of birth, parenting practices, education, and business operations. We also have well thought out conceptual approaches at the more abstract levels of economics and global governance. We know in principle, and to a great degree in practice, how to make partnership-respect relating work.

Our challenge, for those of us who care about the well-being of coming generations, is to *increasingly make partnership-respect relating 'the way things are done around here'*. Death, in the form of extinction through all-out war or ecological collapse, is the grim alternative.

Two paths to the future

The diagram below shows real-world consequences of partnership and dominator relating.

DESPAIR



environmental degradation crime war

compulsive consumption unhealthy food drugs to quell anxiety

authoritarian education

stress

punitive childrearing



Dominator control

HOPE



living within our ecological means modest lifestyles

inner wellbeing positive workplace relations

democratic education

Nurturing parenting



Partnership respect

Making partnership/respect values operational

If it is true that a viable society will operate on positive values, how can we embed partnership values throughout society?

There are many ways. Here are some examples.

- At an individual level, there are methods of training that enable us to become more skilful at partnership relating. They include Parent Effectiveness Training, Conflict Resolution, Non-Violent Communication and Crucial Conversations. Discipline such as the Feldenkrais method of body awareness, Aikido and improvisational acting serve as well.
- There are also breakthrough techniques in the new field of energy psychology that enable people to rapidly resolve emotional distress and cultivate emotional resilience. EFT (Emotional Freedom Techniques) is one of them (www.emofree.com). Resolving our emotional stuff makes us less prone to move into dominator mode. Cultivating emotional resilience can reduce our desire to compensate for not feeling good in ourselves by excess shopping. It also makes us less prone to the blandishments of political demagogues.
- Unconditional respect is a pre-condition for students being able to learn. Educational consultancy [Group 8](#) makes the concept of *unconditional respect*

both theoretically and experientially real to the senior leadership of schools; this flows through to the way teachers in the classroom relate to their students.

- At the level of organisations, [*Simply the Best: Workplaces in Australia*](#) shows that in the best performing workplaces (as identified by the Australian Business Council) managers use a partnership-respect style of relating. The connection is obvious: happier people spontaneously work better.

Ricardo Semler's *Maverick* (mentioned above) describes how he changed his Brazilian pump manufacturing company from an authoritarian style to a style that supports individual initiative from workers. There are many other examples of highly successful companies that operate on good willed partnership-respect values.

- In the aftermath of World War II the United Nations was set up to be a community of nations. The World Bank was established to help Third World countries develop. The International Monetary Fund (IMF) was established to provide loans when countries got too economically out of balance.

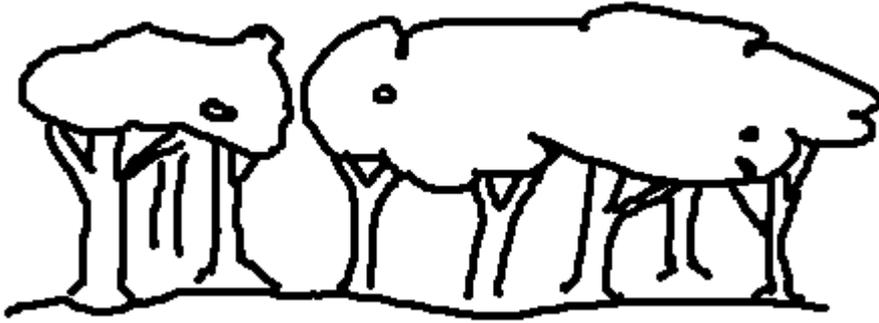
The idea behind the IMF was to reduce the stress on local populations that would tend to lead to war. So initially the World Bank and the IMF were meant to be partnership organisations. They were quickly co-opted to serve corporate interests (*The World Bank and the Poverty of Nations*, Catherine Caulfield, Macmillan, London 1997).

Question 2:

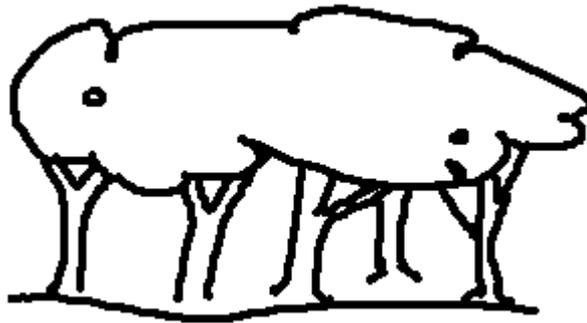
What is the essence of environmental sustainability?

The essence of environmental sustainability is that we do not destroy nature faster than it can regenerate, and we do not introduce toxins into the environment that living cells cannot handle.

Suppose you have a forest.



And you log part of it.

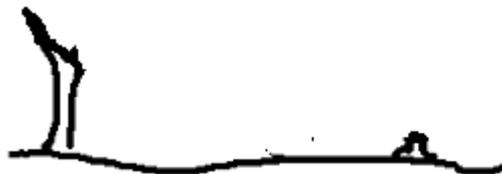
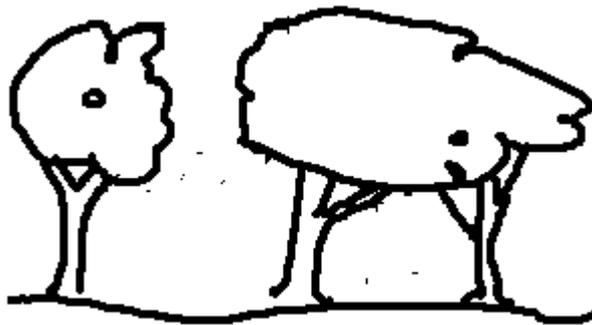


But an equivalent amount grows back somewhere else.



As long as the amount that grows back equals the amount that was logged, in principle the forest is sustainable. You destroy part of the forest, but it regenerates.

However, if you destroy the forest faster than it can regenerate, the forest gets thinner and thinner (or smaller and smaller) and eventually turns into grassland and then desert.



The progressive reduction of the forest is unsustainable.

So what we are looking at is **cumulative** environmental damage – damage that accrues over time. In the long run cumulative environmental damage is unsustainable.

This way of looking at the essence of environmental sustainability comes from *The Natural Step*, developed by Swedish scientist Karl-Henrik Robèrt. He puts it more formally:

The Natural Step Four System Conditions for environmental sustainability

In a sustainable society, nature is not subject to systematically increasing

...concentrations of substances extracted from the Earth's crust,
...concentrations of substances produced by society,
...degradation by physical means,

and in that society

...people are not subject to conditions that systematically undermine their capacity to meet their needs.

These are real-world conditions, not theoretical ideals. If we mine lead and mercury and they spread through the natural environment they act as poisons, because living cells are not adapted to them. Ultimately, they accumulate into our bodies, and affect our brains and bodies. Similarly with industrial toxins.

If we progressively reduce the physical basis for nature's productivity we will destroy the ecological basis of our food supply. These processes are currently occurring on a large scale, e.g. in the form of fracking, the destruction of rainforests, and soil depletion.

The requirement to meet basic human needs is not simply an idealistic wish. When basic human needs are not met people behave in ways that are environmentally damaging on a large scale.

The Natural Step System Conditions provide a way of working out whether a business, a country or our global civilisation is operating in a way that is ecologically sustainable or not. For example, we may ask: are the fish in a given fishing ground repopulating as fast as we take them out, or are the fish stocks declining over time (e.g., currently tuna stocks are down 90% from former numbers).

Thus, instead of arguing over absolute numbers (e.g., at what point will the fishery collapse?), for policy purposes we can simply note the trend. Is a given environmental indicator getting worse? If so, it is time to change course. Is a critical environmental indicator getting worse faster? It is time to go into emergency mode.

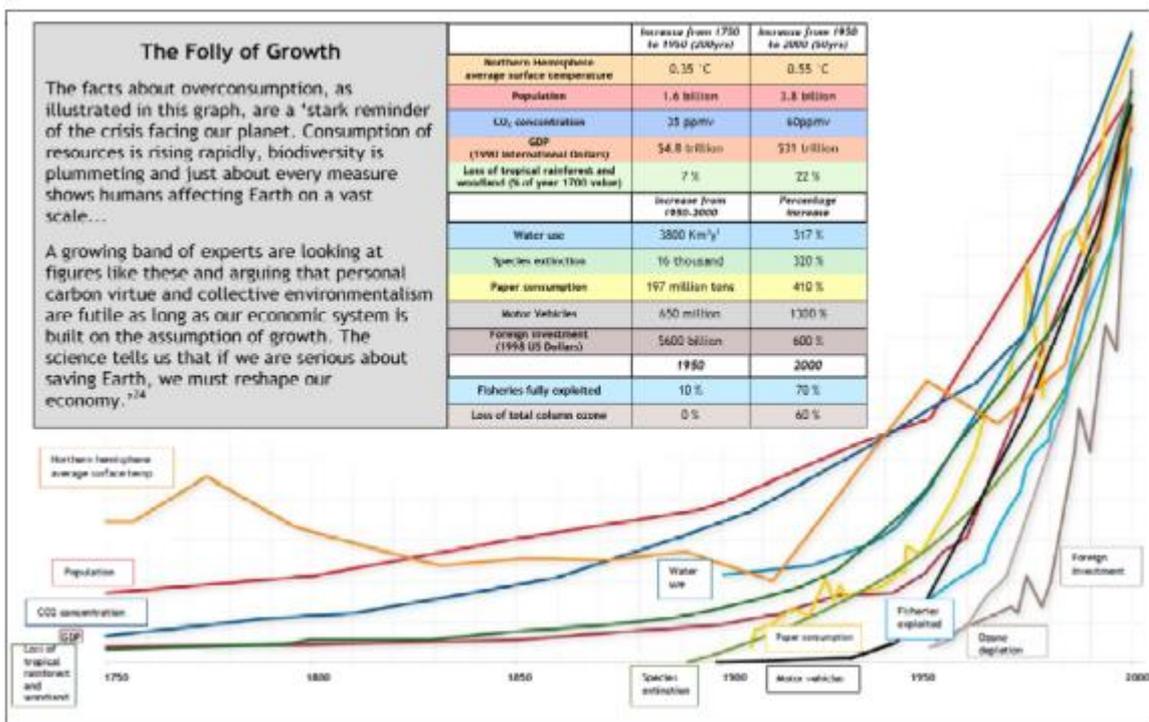
A number of businesses now do annual sustainability audits to assess how they are functioning against these criteria. Perhaps the most famous is Interface Carpets; Founder Ray Anderson tells the story in *Mid-Course Correction*.

Ray Anderson, the founder of Interface, invited Karl-Henrik Robèrt train his staff in The Natural Step principles. This led to major improvements. Interface realised that they could shift from selling carpets to selling carpet services. They reuse material

from the used carpets instead of throwing the carpets into a landfill. This turned out to be economically profitable as well as environmental gain.

How are we doing?

Will Steffen of Australia National University produced a set of diagrams that show how population, economic increase and environmental damage in various sectors are all rapidly increasing simultaneously. In 2008 *New Scientist* summarised them in a special report called *The facts about overconsumption*.



For an expanded view of this graph, go to [see graph in detail](#).

These graphs show how areas such as water use and species extinction are increasing hand-in-hand with increasing economic growth – the classic ‘hockey stick’ curve.

The graphs tell a story. They are indicators of a dysfunctional global civilisation that must change radically if it is to survive its own success.

Peak Resources

Peak Oil is that point in global oil production when the availability of oil that is easy to extract begins to decline. Extending the idea, Peak Resources is when many elements necessary to run our industrialised civilisation begin to become scarce or run out.

As Joseph Tainter shows in *The Collapse of Complex Societies*, when societies reach the point where the resource they depend upon began to decline, typically their

leadership pushes harder to extract the remaining resources. They accelerate their decline by trying to amplify business as usual.

Ancient Sumer provides a classic example. The invention of irrigation enabled them to produce more rice and wheat. Population increased. They developed administrators, engineers, scribes, an educational system, and centralised government – a ‘complex society’, which, like all developed societies, depended on its agricultural base to keep going.

So far so good. But the irrigation produced salination – a process where salt comes to the surface and destroys the productivity of the soil.

What was the leadership to do? If they reduced irrigation, their crops would decline, producing food shortages. The populace would rebel. If they tried to increase production, they would accelerate their decline. This is ‘Tainter’s Dilemma’.

They pushed harder. They shifted from two crops a year to three, ultimately exhausting the soil. They collapsed.

Our current the power elites do the same thing. They push to extract oil from sources where extraction is increasingly difficult, such as coal tar sands and deep offshore drilling, expand coal seam gas extraction (fracking), and keep using coal despite its CO2 emissions.

We have options that the Sumerians did not have. With skilled design (plus population reduction) we can design our cities, industrial processes and agricultural systems to operate within planetary boundaries... *provided that we also choose to live materially modest, even frugal lifestyles* during the transition period. This is because we are already in overshoot, using far more of the resources in a year than can be renewed by natural processes.

George Bush senior famously said at the first Rio Earth Summit on Environmental Sustainability. “The American way of life is not negotiable.”

“Yes dear,” affirms Mother Nature, knowing what is coming, “it is *not* negotiable.”

The way out is to accept reality and aim for descent by design, not by disaster.

Our wake-up call

In 2008 a Russian research ship discovered methane plumes bubbling up from the bottom of the Arctic Ocean. The permafrost vault that covers vast tracts of frozen methane (gas hydrates) is developing cracks. The prestigious United States National Science Foundation issued a [warning paper](#) about it.

Since methane is a potent greenhouse gas, the concern is that this could be the beginning of uncontrollable global warming.

The implication for public policy is that it is no longer realistic to plan to allow atmospheric CO₂ to rise. Scenarios suggesting stabilising CO₂ at 450-550ppm are out of date. Merely stabilising at current concentrations of CO₂ will be insufficient. A responsible policy response requires going all out to not only reduce fossil fuel emissions; but actively withdraw in excess CO₂ from the atmosphere. Paul Hawken's [Project Drawdown](#) describes 100 ways to do this.

We have just considered the two core principles of a viable society: *partnership-respect relating* and true *ecological sustainability*.

Our next step is to develop a *big picture map* of how our society operates to make CO₂ emissions and other environmental damage increase, so that we know what needs to change. It is not enough to focus on pieces of the puzzle; we need to bring the whole picture into view so that nothing important is neglected.

Question 3:

How does the operation of our society as a whole tend to make environmental issues worse?

Skilled practitioners in every discipline consider the whole situation. They don't just jump to solutions; they take the time to work out precisely what is needed. That way they do not miss important factors, and they can identify the most effective places to intervene.

Doing a 'systems analysis' is especially important in terms of catalysing large-scale healthy social change. Here I will show a way. Its purpose is to help people move from silo thinking and pursuing single issue solutions to systems thinking, where we see the whole picture and see the need for transformative systemic change.

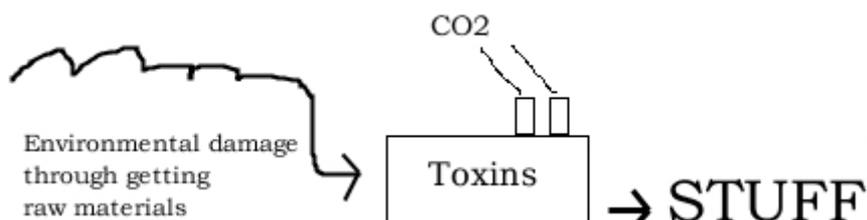
The question we are asking is *How does our society as a whole operate in ways that increase CO2 emissions and other environmental degradation?*

We will develop step-by-step a diagram that maps the major elements of how our current industrial civilisation accelerates environmental degradation.

We begin with the *Ecological Equation*. It shows the connection between the production of 'stuff' and environmental degradation. Annie Leonard's brilliant [The Story of Stuff](#) begins the same way.

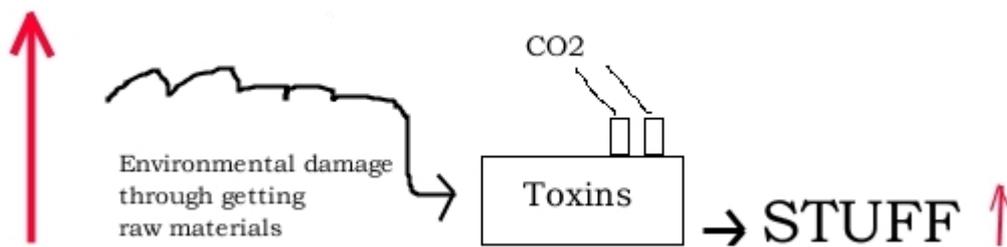
The Ecological Equation

As this diagram indicates, there is a direct connection between the amount of 'stuff' we produce and associated environmental damage.



The process of extracting raw materials through mining, industrial agriculture, animal agriculture and cutting down forests degrades the environment. The raw materials are processed in factories, which produce additional environmental damage through industrial toxins, and through CO2 emissions. All of these are involved in the production of the ordinary things that we use: *stuff*.

In the following diagram, as the red arrow on the right representing increasing consumption goes up, the red arrow on the left representing environmental deterioration goes up even more. The more *stuff* the more damage. This diagram works as a visual equation.



Cumulative environmental damage is environmental damage that gets worse over time. It is clear that if we are to become environmentally sustainable, we must reduce the cumulative environmental impact of the process of making and consuming things. *By how much?* we may ask. *To what numerical value should the arrow on the left (representing cumulative environmental damage) fall in order to be sustainable?*

As we observed earlier, if we cut trees from a forest, but trees in other parts of the forest grow back at an equal rate, then in principle the forest is sustainable. However, if we cut down trees faster than they regrow, gradually the forest will get smaller and smaller until it is gone. This is an example of *cumulative* damage. It adds up over time. If we intend to be ecologically sustainable, our goal must be to reduce our *cumulative* rate of environmental degradation in key areas such as topsoil, forests, fish stocks, water and biological diversity to ... (drum roll!) **zero**.

Zero! This rigorous demand comes from the nature of reality itself. It has nothing to do with political opinions. If the ongoing trend is of increasing deterioration, we will end up destroying our life support systems. We are well on the way.

Integrated industrial design as a hopeful line of solution

The technological hope is to reduce environmental degradation through improved design. A great deal can be done in this direction. Lovins and Hawken's *Natural Capitalism* shows that in every area including agriculture, architecture and manufacturing we can reduce the amount of energy and materials we use by ninety percent or more. This is an exciting realisation, and more of us should know about it. It is crucial to our future well-being.

But we may wonder if improved design will be sufficient by itself? Sometimes improved design means that things are produced more cheaply, making it easier for more people to buy more of them, so there is still a large ecological footprint. And as affluence increases, many people tend to buy more things.

Reducing overall consumption

Therefore I suggest that we must set as our goal **reducing overall consumption**.

This requires a *whole system change* (our theme) based on profound changes in attitudes and the way we do things as a society, and not just changes in specific behaviours such as recycling.

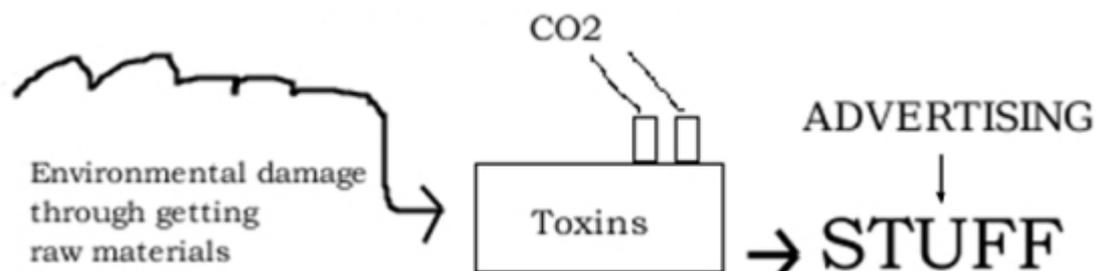
Note that this is not about reducing basic necessities. Nor is it about living bleak poverty-stricken lifestyles. It is about reducing *excess* consumption – consumption that is wasteful through poor design (e.g. built in obsolescence), and consumption of excess stuff that we do not necessarily need or enjoy. It is about elegant design that is satisfying.

Simultaneously, it is about increasing social connectedness and personal wellbeing. We can live better with less – exquisite sufficiency!

Identifying factors that tend to increase consumption

To understand the nature of the needed whole system change, let's consider factors that tend to *increase* consumption. This enables us to identify the things that collectively we need to change.

Obviously, advertising plays a major role in increasing consumption – especially excess consumption of things we don't necessarily need or enjoy.



But advertising *per se* does not compel us to buy things. There are psychological drivers that affect our desire to purchase things.

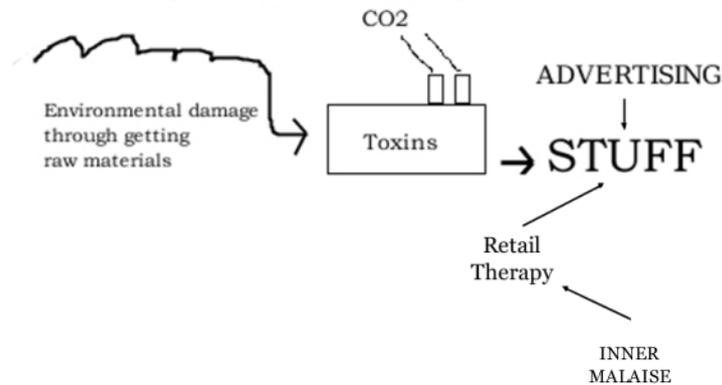
Many of us are attracted by the ready availability of relatively inexpensive interesting looking things. We are attracted – and we may not be aware of the associated ecological damage. So we may include both *attraction* and *ignorance of environmental effects* as factors in excess consumption.



At a deeper level, many people have a sense, consciously or unconsciously, of inner malaise, and they compensate through *retail therapy*.

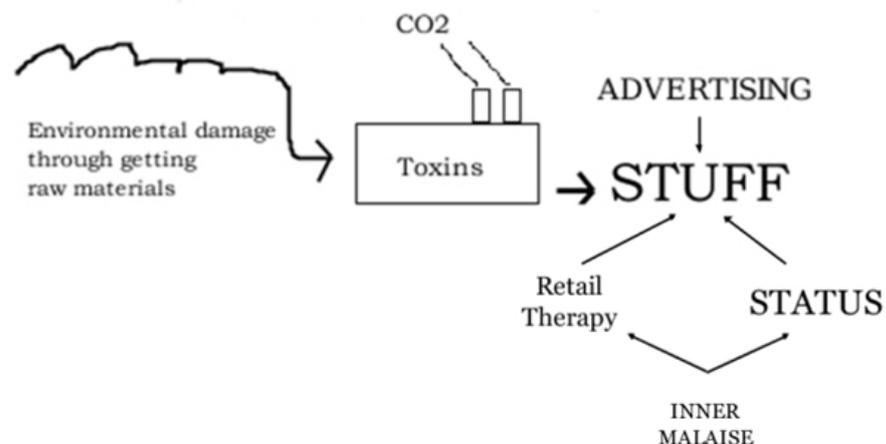
Much of the sense of inner malaise comes from abuse or neglect of some kind. It is inherently painful to experience traumatic memories or feelings of emptiness. However, properly done, contacting and resolving such feelings is healing, and opens us to authentic pleasure and more fulfilling relationships.

We add *inner malaise* as a driver of excess consumption.



Excessive desire for the appearance of high status is also a driver of excess consumption. There is healthy status and pathological status. Healthy status is earned; it arises because of one's contribution to the community based on competence and caring. Pathological status is based on attempting to feel good about oneself by appearing to be superior, or at least not inferior. This manifests as conspicuous consumption and 'keeping up with the Joneses'.

So we add *seeking the appearance of high status* as a driver of environmental destruction.

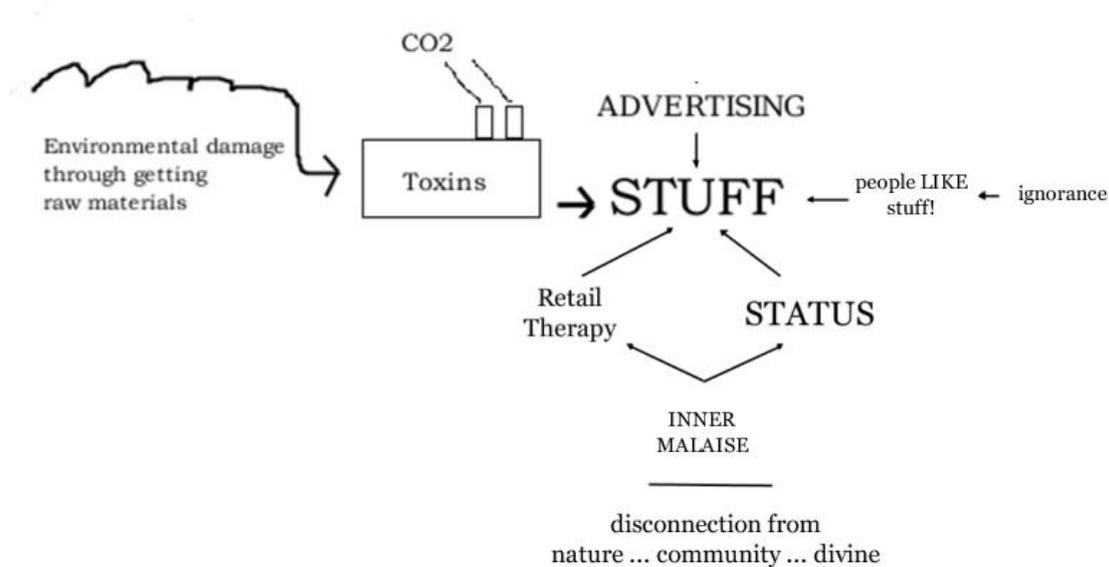


In the movie *Avatar* we saw a vision of a beautiful indigenous people and their environment wilfully destroyed for the sake of massive profit. We now see this playing out here on Earth. Every developed society has *commerce*; this is the ordinary

trade in goods and services that keep things going. But what we saw in *Avatar* we might call *commercialism*. Commercialism is the compulsion to accrue massive amounts of financial wealth, despite its disastrous effects on communities and the environment. We can regard it as a form of mental disease.

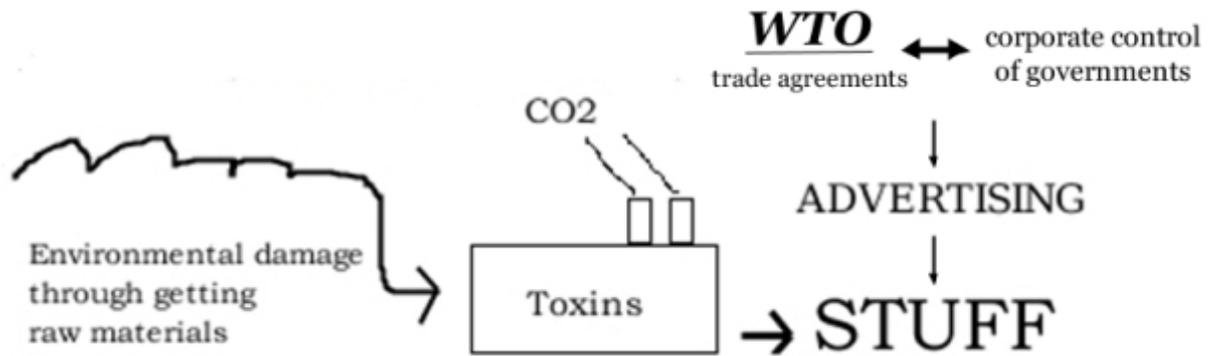
Many people, based on their experience, hold the view that the ultimate nature of the universe is consciousness, and that the quality of this consciousness is love. Words that are sometimes used to indicate this aspect of reality include *presence*, *divinity*, *Great Spirit*, *God*, and *Being*. It has been suggested that many of us, because of trauma and cultural denial, have organised our minds in ways that prevent us from experiencing the well-being associated with deeper levels of connection with nature, community and whatever we might experience as the divine. We are disconnected from deeper levels of ourselves.

Being disconnected from these levels of awareness is in itself painful; we compensate with the surface pleasures of materialism.



These psychological factors that drive ever-increasing industrial production, and hence environmental destruction, manifest in institutional arrangements. They include government policies devoted to increasing economic growth; the World Trade Organisation (WTO); and various Free Trade agreements. The WTO agreements, although instituted by ‘democratic’ governments, were never debated or voted on by the general populace. They subvert democracy

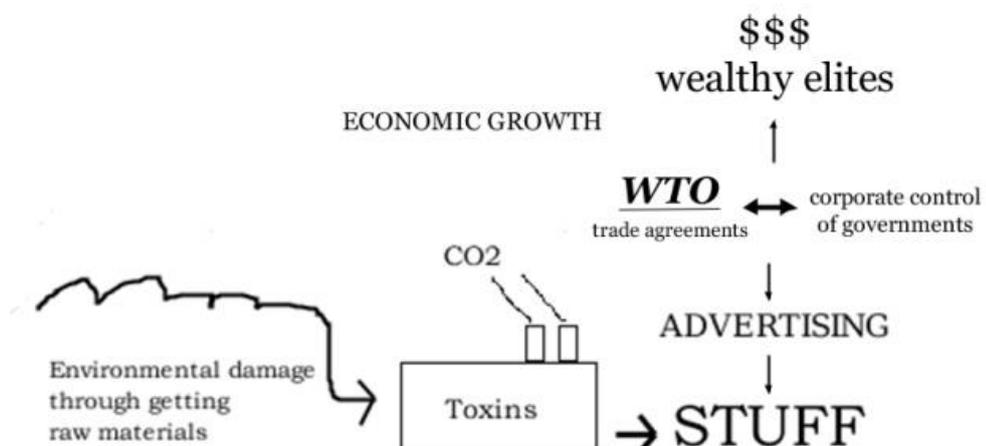
These laws were instigated by corporate interests. And many of us feel that to a great extent our governments are corrupted by money. These factors too are major parts of the system that must change if we are to become ecologically sustainable; let’s add them to our diagram as *corporate control of governments*.



As you know, our economic system is oriented around continual economic increase for the sake of increasing shareholder value. A great deal of financial capital is in superannuation funds, which means that ordinary people have an investment in keeping the current growth system going. However, the majority of shares are owned by a relatively small number of extremely wealthy people.

So we may say that our economic system is set up to help the wealthy get wealthier. They are assisted in this through government policies that they themselves have influenced – policies that emphasise increasing the Gross National Product. Money enters the system as debt with interest, and paying off the interest requires ever-increasing economic growth. Trade is the engine of growth, and organisations such as the World Trade Organisation are specifically designed to increase international trade. All of this drives ecological destruction.

So let's add two more aspects to our map: devotion to economic growth in a way that *increases the wealth of the elites*.

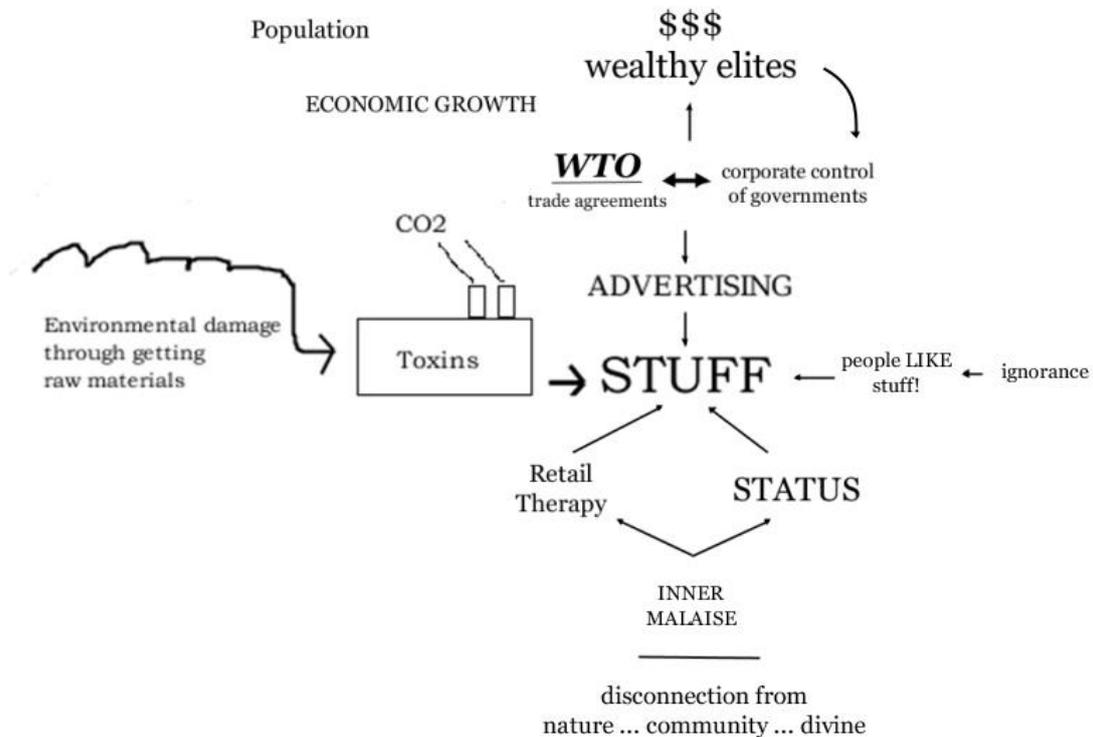


Population

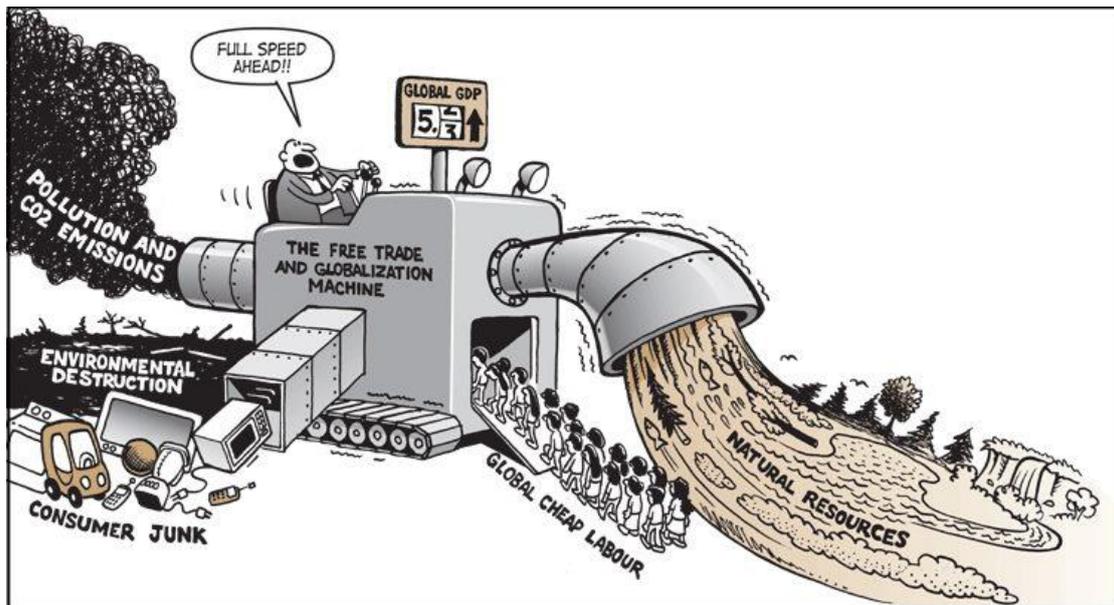
Population increase amplifies all the adverse trends. Even in Third World countries with really small personal ecological footprints, increasing population puts stress on food, fresh water supplies and other local resources. In the developed world, having more children means having more consumers. So population increase is a major driver of environmental degradation.

The map that we have developed – and the grim prognosis that goes with it – is a picture of a *dominator* society. Putting this label on the map completes our big picture orientation.

Our current dominator system



This cartoon sums up our situation.



Can we change the whole system?

Can we change the dynamics of our global civilisation sufficiently to completely avert the coming disasters? No. But sometimes marginal changes can make a massive difference. This story illustrates the point.

Two mountaineers, good friends, were crossing an icy glacier. They were roped together so that if one of them slipped, the other could save him from sliding off the edge. One did slip, and they both fell down. One was on his back, helplessly dragging them both towards the edge. The other, on his stomach, frantically dug into the ice with his ice picks. Success! Their slide halted two meters from the edge.

Al Gore lost the US presidency by only a few hundred votes in Florida. Presumably, had he won we would not have had the invasions of Afghanistan and Iraq, and the US would have adopted a strong climate policy.

Even though global warming now has huge built in momentum, perhaps we can slow atmospheric CO₂ emissions, and even draw down excess CO₂ sufficiently so that we avoid runaway global warming.

Affecting the drivers

Each of the factors that we have identified is a driver of ecological deterioration. With sufficient public will, each of them can be affected.

The psychological aspects that underlie retail therapy and the desire for the appearance of high status, although they are rarely discussed, are actually major drivers of environmental deterioration in developed countries. It boils down to this: *in the developed world, to a significant degree environmental deterioration is driven by unhappy people.*

If so, a key point of change for creating a positive future is increasing internal well-being. Nurturing parenting, strong social networks, personal development, and organising business, education and government to operate on partnership values all contribute to genuine happiness and wellbeing.

Other important points of change include improved industrial design; modifying or withdrawing from the WTO; and taxing the advertising that fuels excess consumption.

There is a powerful wave of technical innovation for sustainability. We also have potent techniques for cultivating systems thinking and creativity, resolving emotional disturbance, and improving our ability to work collaboratively with others.

In short, the good news is that the knowledge and skills necessary to transform to a viable society already exist. In every sphere we have technical, economic, social and psychological techniques that contribute to the evolution of a life-affirming culture.

Single factor solutions are insufficient

Now we can see why single-factor solutions are insufficient. It is this entire system that must transform – based on the core values of a life affirming culture, and finding expression through the many points of change that we identified in our diagram.

Catalysing large-scale transformative change

We can influence some of the drivers as individuals. For example, we can do personal development to improve our own emotional wellbeing, and hence reduce the anxiety that might lead us to buy stuff we don't need. We can raise kids in ways that support their autonomy and inner motivation. And we can introduce others to techniques for sorting out their own unresolved emotional issues (more on this is given in the Appendix).

If we are a school principal, perhaps we can change the school culture from authoritarian command and control to one that supports kids' curiosity and initiative, and hence their sense of agency and well-being.

If we are business leaders we can work out how to run our business in ways that reduce stress on employees, and hence reduce their tendency to excess consumption. We can also invest directly in industrial redesign that eliminates waste and toxins.

Obviously, large-scale national and global policies are not within our personal ability to directly change. But it is not that these things cannot change.

The pre-condition for change is that a critical mass of people intelligently and passionately embrace the need for large-scale transformation.

Since this is unlikely to be championed by mainstream media, we need ways to bypass the media.

A direct way to bypass the media is for those of us who have become knowledgeable – and who care – to communicate about whole system change to a life-affirming

culture with our friends, business colleagues and neighbours. [The Great Transition Initiative](#) has been set up as a platform to support such communication.

We can communicate to our networks through emails. More personally, we can use [Kitchen Table Conversations](#) for in-depth conversations. A unique feature of Kitchen Table Conversations is the use physical markers to help people keep track of conversations about systemic change. The idea came from a former stage magician. People like them.

However, posting just a few conversations will not be sufficient. We need to engage millions of people – a critical mass. Which leads to our next question.

Question 4:

How can we catalyse a movement to shift the aspiration and practical operation of our whole society?

To review, humanity is in an ecological emergency that puts us in jeopardy as a species. The overall operation of our globalised civilisation makes things worse. Turning things around, to the extent still possible, requires mobilising massive public will for a new goal: *transitioning to a life-affirming global culture*.

For this to occur, a critical mass of people must want it. So our question is: *how do we engage the unengaged*, people who do not seek out information about environmental trends and their implications?

Our starting point is the recognition that there are millions of groups that care about environmental and social well-being. Millions. Mostly their members pay dues and sign petitions. They are a vastly underutilised resource for transformative social change. They could go beyond signing petitions, and become citizen educators.

The reach of any one organisation is limited. However, the personal networks of the members of environmental, progressive, and faith groups are massive. We reach into every level of society. A way to reach mainstream society is for many *members of these groups to communicate through their networks* about the vision of transitioning to a life affirming culture, and what it will take to succeed.

A platform to support such communication has been developed. It is the [Great Transition Initiative](#).

The Great Transition Initiative is not an organisation in the usual sense. There is no central command-and-control that directs what people do. Instead, each individual and group that plays a role of the Great Transition Initiative acts as an autonomous agent. What unites us is the shared goal of transitioning to a life affirming culture, and the recognition that communicating to engage mainstream commitment is essential for success.

The Great Transition Initiative has a robust set of communication tools. They include sample emails, workshop designs, guerrilla marketing tactics and Kitchen Table Conversations.

It is easy enough to send emails. Sample emails can be downloaded from the Resources section of the Great Transition Initiative [website](#). They can be tweaked in your own way.

Kitchen Table Conversations enable people to make sense of transformative change. They explore the key ideas this article. We use physical models to help people keep track of the conversations. You can download the (free) manual [here](#), and purchase a Great Transition Initiative Kit [here](#). Templates for making the models yourself are [here](#).

Initiating Kitchen Table Conversations

It is not hard to conduct conversations about transitioning to a life affirming culture. Although the conversations are serious, and require our best adult thinking, if you able to coach a child with her homework you have the skill to conduct Kitchen Table Conversations. This is because the physical models make it easy.

The hard part is doing it the first time. It means going past ordinary social conventions, and there can be internal resistance along the lines of

*I don't know enough.
People will think I am weird
I don't want to proselytise.*

Sometimes simply acknowledging and reflecting on these reservations shifts them.

We do not have to be experts. We can engage in co-learning with our friends, and talk it through together. The conversations give an overview, and you already know enough. In-depth exploration can come later.

As you may have experienced, off-the-cuff conversations about global warming or other environmental issues tend to quickly polarise. The solution is to arrange a time for an extended conversation.

Inviting people to thoughtful conversations is not proselytising. We are not enrolling people in an ideology. We are inviting people to think realistically about the major issues of our time, and come to their own conclusions. True, the conversations are structured, and we provide a framework to connect-the-dots. But we are asking them to be responsible thinkers, not conformists.

Social philosopher Jean Houston said:

We are among the most important people who ever lived. We will determine whether humankind will grow or die, evolve or perish.

Jean Houston

So, let's get on with it!