## **Sustainability – The Simpler Way perspective.**

Ted Trainer.

10.5.2016

I believe most discussions of sustainability fail to grasp the magnitude of the problem, and therefore fail to realize that it can't be solved without extremely radical change. I also believe the transition to the required Simpler Way could easily be made ... if we wanted to do that, and that it would greatly improve the quality of life.

Following is an outline of the case, firstly that present ways are grossly unsustainable and secondly that the solution must involve far lower rates of production and consumption and GDP, frugal and self-sufficient lifestyles in small, localized, and largely self-governing communities, in a zero growth economy which is not driven by market forces. The most difficult element in the transition will be cultural, that is moving from competitive, individualistic acquisitiveness to being able to enjoy non-material life satisfactions in stable and cooperative local communities.

The present levels of production, consumption and GDP in rich countries are far beyond those that could be kept up for long or spread to all the world's people. The basic numbers here are indisputable (below) and they mean that a sustainable and just world cannot be achieved unless we shift to systems, ways and values that allow us all to live well on a very small fraction of present rich world per capita resource consumption. The Simpler Way vision is firstly concerned to get the seriousness and nature of the situation more clearly understood, and then to persuade people that a workable and attractive alternative to the present society is easily imagined ... and achieved if that's what we want to do.

Most thinking about sustainability proceeds as if it will be possible to solve the resource and ecological problems without much if any need to question affluent lifestyles or economic growth or the free enterprise system. The reasons why this belief is seriously mistaken will be outlined below.

If this analysis of our situation is sound we have no choice but to try to move to a society in which there cannot be any economic growth, market forces cannot be allowed to determine our fate, there must be mostly small and highly self-sufficient and self-governing settlements, mostly local economies, very little international trade, highly participatory political systems, and above all willing acceptance of frugal lifestyles and non-material sources of life satisfaction. The argument is that these extreme steps are the only way that the accelerating global problems can be solved, including resource depletion, destruction of the environment, Third World deprivation and poverty, conflict and warfare over dwindling resources, and a falling quality of life in even the richest countries.

Many groups and movements are now working for a transition to more local, small scale, self sufficient and communal ways. For instance there are De-growth, Eco-village, Transition Towns, Permaculture and Voluntary Simplicity movements. However The Simpler Way argument is that change must be more radical than most people in these movements realize.

The chances of us making such a transition are not at all promising but the challenge to people concerned about sustainability is, when the seriousness of the limits analysis is understood, what other perspective makes sense?

# Firstly let's set the scene; The deteriorating state of the planet.

The resource base and environmental conditions on which the present levels of global production and consumption are built are obviously deteriorating at an alarming rate. Few if any would not be aware of this but it is important to briefly remind ourselves before focusing on how impossible it would be for this base to sustain affluence and growth for all. A glance at the situation reveals that resources are becoming more scarce and costly, including energy, productive land, minerals, food, fish, wood and water, and ecosystems are being severely damaged. We are losing species, forests, land, coral reefs, grasslands and fisheries at accelerating rates. A sixth era of massive biodiversity loss appears to have begun. We are polluting the planet with ewxcess carbon dioxide, nitrogen and many toxic chemicals. The mass of big animals on the planet has declined sharply in recent decades, probably down by 90% in the sea. The World Wildlife Fund says that in general the quality of global ecosystems has deteriorated 30% since about 1970, and its "Footprint" measure indicates that we are now taking biological resources at a rate that would take 1.5 planets to provide in a sustainable way. (2014.)

The reason for all this massive resource depletion and damage to the environment is simply that there is far too much producing and consuming going on. This is causing too many resources to be taken from nature and too many wastes to be dumped back into nature.

# Now consider the limits case: Could everyone live as we do?

The 10-15% of the world's people living in regions such as North America, Australia and Europe have per capita levels of resource use that are around <u>20 times</u> the average for the poorest half of people. How likely is it that all the 9.7 billion people expected by 2050 could rise to the <u>present</u> rich world level of resource use?

If they did live as we do then world annual resource production and consumption, and ecological damage, would be approaching 6 times as great as at present. Yet present levels of resource use and environmental impact are far from sustainable.

The World Wildlife Fund's "Footprint" analysis yields an even higher multiple. They estimate that it takes about 8 ha of productive land to provide water, energy settlement area and food for one person living in Australia. So if 9 billion people were to live as we do we would need about 72 billion ha of productive land. But <a href="https://doi.org/10.1001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.2001/jha.

### Now add the absurdly impossible implications of economic growth.

But the foregoing argument has only been that <u>the present</u> levels of production and consumption are quite unsustainable. <u>Yet we are determined to increase present</u>

living standards and levels of output and consumption, as much as possible and without any end in sight. In other words, our supreme national goal is economic growth. Few people seem to recognise the absurdly impossible consequences of pursing economic growth.

If we rich countries have a 3% p.a. increase in economic activity until 2050 then our output, resource use and environmental impact will be around 4 times as great as it is now, and doubling every 23 years thereafter.

Now what if by 2050 all the expected 9.7 billion people expected to be living on earth had risen to the "living standards" we in rich countries would then have given 3% economic growth. Total world output, resource, use and environmental impact would be approaching 15 times as great as they are now ... unless technical advance and efficiency gains could greatly reduce them. (See below.)

These multiplies must be the focal point in discussions of sustainability.

Grasping the magnitude of the overshoot and of the unsustainability is crucial here. The numbers show that present, let alone probable 2050 rich world levels of consumption, are grossly unsustainable and could never be extended to all people.

# But can't technical advance solve the problems?

Most people hold the "technical fix faith", believing that technical advance will solve the resource and environmental problems and thereby make it unnecessary for us to question the commitment to affluence and growth. When considering the following evidence keep in mind that what we need is not just to stop increases in impacts as growth goes on -- we need to reduce impacts dramatically before sustainable levels are reached.

There is a very strong case that technical advance is nowhere near capable of solving the sustainability problems facing us. Note that many miraculous technical developments, e.g., in physics, astronomy, genetics, and medicine, are not so relevant here where the focus is on the possibility of making big improvements in the efficiency and energy costs of producing energy and materials, and of cutting ecological impacts. Following are some of the main elements in the case.

### 1. Efficiency gains to date.

It is not the case that technical achievements in the relevant areas have been very encouraging. Ayres and Vouroudis (2009) note that for many decades the efficiency of production of electricity and fuels, electric motors, ammonia and iron and steel has more or less plateaued. In many crucial areas such as producing energy and minerals (below) the trend is towards worse efficiency, i.e., the need is for increasing inputs per unit of output.

# 2. The deteriorating productivity growth rate.

Technical advance is regarded as a major determinant of productivity growth and that has been in long term decline since the 1970s. Even the advent of computerisation has had a surprisingly small effect, a phenomenon now labelled the "Productivity Paradox." In fact he UK the productivity growth rate has recently has gone below zero; i.e., productivity has actually deteriorated. (Weldon, 2016.)

# 3. Little or no "decoupling" is occurring for materials or energy use.

This is the most important issue; does recent history indicate that economic output has been or can be separated from materials and energy use, so that growth can continue while resource demand falls? The "Tech-Fix faith" is fundamentally dependent on the assumption that massive decoupling is possible. But all the evidence seems to say that the amount of materials or energy needed to produce a unit of GDP in rich countries has not improved much if at all in recent years. The box below refers to some of the evidence.

Weidmann et al. (2014) say "...for the past two decades global amounts of iron ore and bauxite extractions have risen faster than global GDP." "... resource productivity...has fallen in developed nations." "There has been no improvement whatsoever with respect to improving the economic efficiency of metal ore use."

Giljum et al. (2014, p. 324) report in the world as a whole only a 0.9% p.a. improvement in the dollar value extracted from the use of each unit of minerals between 1980 and 2009, and that over the 10 years before the GFC there was no improvement. "...not even a relative decoupling was achieved on the global level." They point out that the picture would have been worse had they included the many materials in rich world imports.

Diederan's account (2009) of the productivity of minerals discovery effort is even more pessimistic. Between 1980 and 2008 the annual major deposit discovery rate fell from 13 to less than 1, while discovery expenditure went from about \$1.5 billion p.a. to \$7 billion p.a., meaning the productivity of expenditure fell by a factor in the vicinity of around 100, which is an annual decline of around 40% p.a. Recent petroleum figures are similar; in the last decade or so the discovery rate has not increased but discovery expenditure more or less trebled. (Johnson, 2010.)

Schandl et al. (2015) say " ... there is a very high coupling of energy use to economic growth, meaning that an increase in GDP drives a proportional increase in energy use." "Our results show that while relative decoupling can be achieved in some scenarios, none would lead to an absolute reduction in energy or materials footprint." In all three of their scenarios "... energy use continues to be strongly coupled with economic activity..."

Alvarez found that for Europe, Spain and the US, GDP increased 74% in 20 years, but materials use actually increased 85%. (Latouche, 2014.)

Similar conclusions re stagnant or declining materials use productivity etc. are arrived at by Aadrianse, 1997, Dittrich et al., (2014), Schutz, Bringezu and Moll, (2004), Warr, (2004), Berndt, (1990), Smil, (2014) and Victor (2008, pp. 55-56). (Note that economists often claim that the "energy intensity" of rich world economies is improving, but this is only because they fail to take into account the huge amounts of energy used overseas to produce imports, and "fuel switching"; see Kaufman, 2004.)

# 4. There is ecological deterioration in almost all domains.

Technical advance has obviously not slowed, halted or reversed overall damage to the planet's ecosystems. The "Environmental Kuznets Curve" thesis is an application of the decoupling claim to environmental impacts, asserting that as countries become richer impacts increase for a time but then plateau and fall. There is little doubt now that the thesis is not valid. Rich countries are in general not solving their most serious environmental problems. Alexander's review (2014) concludes that for the world as a whole, "... decades of extraordinary technological development have resulted in increased, not reduced, environmental impacts."

These many sources and figures show the extreme implausibility of the tech-fix faith that in future technical advances will enable us to stop worrying about limits and any need to dramatically reduce consumption or the obsession with economic growth.

## Conclusions on the limits to growth case.

In view of these lines of argument it is difficult to see how anyone could disagree with the basic limits to growth case. Present ways are so grossly unsustainable there is no possibility of all people rising to the living standards we take for granted today in rich countries, let alone those we are seeking. Again the most important point is the magnitude of the overshoot. Most people have no idea of how far beyond sustainable levels of consumption we are or how big the reductions should be. For decades many scientists and agencies are have been emphasizing the validity and importance of the basic limits case. Sustainable ways that all could share appear to require us to go down to per capita rates of resource consumption around 10% of those we have now.

It follows from the above discussion that the only solution is to shift to some kind of Simpler Way, i.e., to lifestyles, settlements and systems that make it possible for us to live well on a small fraction of our present rich world levels, with no economic growth.

# THE INJUSTICE OF THE GLOBAL ECONOMY.

Our goal should be societies that are sustainable <u>and just.</u> <u>The present economy is massively and unavoidably unjust; it does not and it can not distribute things fairly or develop the right things.</u> (For the detail see TSW: <u>The Economic System.</u>)

As well as being an economic system that must have growth, the fundamental driving mechanism in this economy is the market, and this <u>never</u> distributes things according to what is needed, or according to rights, or what is ecologically desirable. <u>Markets always allocate most scarce things to those who can pay most for them, i.e., richer</u>

people and nations. That explains the huge differences between rich and poor nations in resource and energy consumption; we get most of the oil and everything else for sale because we can pay more than poor people who need things much more than we do.

About 600 million tonnes of grain, one third of world production, is fed to animals in rich countries every year while over 800 million people are hungry. Why? Because the market determines who gets the grain; it is more profitable to feed it to animals to produce meat for richer people.

Even more importantly, this economy <u>never</u> develops what is most needed; it always develops only what is most profitable for people with capital to invest. It is not difficult to list things the majority of people in Haiti need, but what industries has this economy developed there? Mostly plantations and factories paying very low wages to a few, to produce goods to export to rich countries. Haiti has rich resources that could enable all its poor people to provide for themselves most of the simple things they need for quite good lifestyles, but this economy gears those resources to the enrichment of the local capitalist class, foreign corporations and people who shop in rich world supermarkets. For these reasons, conventional Third World development can be seen as <u>a form of legitimised plunder</u>. (See TSW: <u>Third World Development</u>, and TSW: <u>Our Empire</u>. For an indication of the alternative approach to development see TSW: <u>Chikukwa.</u>)

It should be noted here that this does not mean that there can be no role for markets in a satisfactory society. It does mean that they must not be allowed to determine our fate. The account below indicates how communities might work out what things markets might be left to do, and eventually whether there is any need for them.

So again we are confronted with the way consumer-capitalist society inevitably causes the most serious global problems; it cannot cut production to sustainable levels and it cannot enable just distributions or <u>appropriate</u> development priorities. The problems in both these domains can only be solved if people in rich countries shift down to living on something like their fair share of global resources. This cannot be done unless there are huge and radical changes in systems, lifestyles and values.

Few people in rich countries understand that they could not have their high "living standards" if the global economy was not enabling them to take far more than a just share of world resources and to deprive Third world people of a fair share. This also reveals the link between resource scarcity and limits on the one hand, and conflict and war in the world. Most armed conflict it is due to struggles to get or maintain access to scarce resource wealth in other countries. Rich nations support repressive regimes willing to rule in our interests and they work to bring down governments that don't. If you are not prepared to move down to living on something like your fair share of world resources then you will continue to need lots of arms to maintain your empire. (See TSW: Peace and Conflict.)

The loss of social cohesion and quality of life.

In addition to the foregoing problems, in the richest countries we are experiencing accelerating social breakdown and a falling quality of life. This too is largely the result of the mindless pursuit of limitless material wealth.

It has been clear for a long time that in rich countries raising GDP and monetary "wealth" adds little or nothing to the quality of life. In fact it is because "...getting the economy going" is the top priority that the quality of life is suffering. Many people do not get a satisfactory share of the wealth, jobs or resources and are having to work harder in more stressful conditions. Many are being dumped into "exclusion". It is no surprise therefore that there is much drug abuse, crime and social breakdown, or that stress, anxiety and depression are now possibly the most common illnesses. Most people work far harder than would be needed in a sane society. Large numbers of young people will never be able to afford a house. There is little or no investment in the development of community or cooperative institutions. Neo-liberal doctrine advocates that all must compete against each other as self-interested individuals for as much wealth as possible, when the sensible way for humans to relate to each other is via cooperation, sharing, giving and nurturing. It is evident that social attitudes are becoming more selfish and increasing numbers of people believe the future will be worse than the present.

Most of this is due to allowing the market to become the dominant determinant of what happens in society. Market forces <u>drive out</u> good social values and behaviour, because they make us focus only on competing to maximise self interest. There is no place in markets for giving, generosity, care, collectivism or concern for the public good. In addition when market forces are freed to determine what happens then what is developed is what will maximize the profits of those few with most capital, not what will most benefit society.

It is not possible to have a good society unless we make sure that considerations of morality, justice, the public good and environmental sustainability are the primary determinants of what happens. This means what is done must be basically determined by rational collective discussion of what is needed, just and ecologically wise... again implying a need for fundamental economic change.

### The alternative: The Simpler Way.

The core Simpler Way claim is that it would not be difficult to shift to ways that were sustainable and just. But it would be a very different society, and at present most people would not accept it. Following is a brief indication of some of the main elements in this vision, intended to indicate that it would be workable and attractive. (For the detailed account see TSW: The Alternative Society.)

The basic settlement form must be the small scale town or suburb, restructured to be a highly self-sufficient local economy running mostly on local resources and requiring a minimal amount of resources and goods to be imported from further afield. State and national governments would still exist but with relatively few functions. There would be extensive development of local commons such as community workshops, windmills, watersheds, forests, edible landscapes. Cooperatives would provide many goods and services. Much use could be made of high tech systems but mostly relatively low technologies would be used in small firms and farms, especially earth building, hand

tool craft production, Permaculture, community gardening and commons. Leisure committees would maintain leisure rich communities, and other committees would manage orchards, woodlots, agricultural research, and the welfare of disabled, teenage, aged and other groups. Local economies would dramatically reduce the need for vehicles and transport, enabling conversion of many roads to community food production.

These settlements would have to be self-governing via thoroughly participatory procedures, including town meetings and referenda. Citizens are the only ones who can understand local conditions, histories, social relations, problems and needs, and they would have to work out the best policies for the town and then implement the decisions arrived at. Centralised states could not govern them at all effectively, especially given the much diminished resources that will be available to states. More importantly the town would not meet its own needs well unless its citizens had a strong sense of empowerment and control and responsibility for its own affairs.

Systems, procedures and the overriding ethos would have to be predominantly cooperative and collective, given the recognition that individual welfare would not depend on individual wealth but on how well the town was functioning. It would not be likely to thrive unless there was an atmosphere of inclusion and care, sharing, solidarity and responsibility.

An entirely new kind of national economy would be needed, one that did not grow, rationally geared productive capacity to social need, had far lower than present levels of per capita production, consumption, resource use and GDP, was under public control, and was not driven by market forces, profit or competition. However, there might also be a large sector made up of privately owned small firms and farms, producing to sell in local markets, although they would have to operate in designated sectors and under careful guidelines set by the town to ensure optimum benefit for the town.

The transition period would essentially be about slowly establishing those enterprises, infrastructures, cooperatives, commons and institutions (an "Economy B") whereby the town built up its capacity to make sure that what needed doing was done, within the exiting mainly fee enterprise system (Economy A.) Over time experience would indicate the best balance between the two, and whether there was any need to retain elements of Economy A.

There would be many "free" goods from the commons, a large non-cash sector involving sharing, giving, helping and voluntary working bees, and almost no finance sector. Small public banks with elected boards would hold savings and arrange loans for maintenance or restructuring. Some people might pay all their tax by extra contributions to the community working bees. Communities would ensure that there was no unemployment or poverty, no isolation or exclusion, all felt secure, and that all had a livelihood, a worthwhile and valued contribution to make to the town. Because the goal would be material lifestyles that were frugal but sufficient, involving for instance small and very low cost earth built houses, on average people might need to work for money only two days a week. It can be argued that the quality of life would be much higher than it is for most people in rich countries today. (See TSW: Your

<u>Delightful Day</u>.) Lest these ideas seem fanciful, they describe the ways many thousands now live in eco-villages.

Beyond the town or suburban level there would be regional and national economies, and larger cities containing universities, steel works, and large scale production, e.g., of railway equipment, but their size and activities would be greatly reduced, and reorganized so that their purpose was to provide what the local economies need. There would be little international trade or travel. The termination of the present vast expenditure on wasteful production would enable the amount spent on socially useful R and D to be significantly increased.

A detailed analysis of an Australian suburban geography (TSW: Remaking Settlements) concludes that technically it would be relatively easy to carry out the very large reductions and restructurings indicated, possibly cutting per capita energy and dollar costs by around 90%.

It is obvious that the Simpler Way vision could not be realised unless there was enormous cultural change, especially away from competitive, acquisitive, maximising individualism and towards frugality, collectivism, sufficiency and responsible citizenship. Fortunately there is now increasing recognition that pursuing ever greater material wealth and GDP is not a promising path to greater human welfare. In a zero-growth settlement there could be no concern with the accumulation of wealth; all would have to be content with stable and secure circumstances, content to enjoy non-material life satisfactions, and to be aware that their "welfare" depended not on their individual monetary wealth but on public wealth, i.e., on their town's infrastructures, systems, edible landscapes, free concerts, working bees, committees, leisure resources, friendly and helpful and generous climate, solidarity and morale.

### **THE TRANSITION?**

If the foregoing discussion is more or less sound, then some coercive implications for transition strategy follow, and some of these contradict commonly held ideas.

The transition will not be given, or imposed, by top-down processes. It cannot be led by governments. The Simpler Way cannot come into existence unless people in general eventually come to want it, and enthusiastically start to build it where they live. It is by definition about eagerness to live frugally and cooperatively in highly self-sufficient and self-governing communities. Such communities can only be built and run by aware and conscientious citizens. This means that the focus for activists should not be on getting green parties elected or on "taking state power." Whether you get power democratically or violently it will be of little or no value in helping you transform towns and suburbs into self-managed communities.... unless that's what people have first come to want.

So the primary and immediate task is to focus on raising the awareness that we have to work for transition to some kind of Simpler Way. This is the classical anarchist perspective on transition. It recognises that a genuine revolution cannot take place unless it comes from deep and widespread commitment by the people to a radically new way. When most people opt for that the revolution will have

<u>been won</u>, and remaking the state etc. along new lines will probably be a fairly straight forward <u>consequence of</u> the revolution.

Thus the main target, the main problem group, the basic block to progress, is not the corporations or the capitalist class. They have their power because people in general grant it to them. The problem group, the key to transition, is people in general. If they came to see The Simpler Way as preferable, consumer-capitalist society would quickly be replaced.

Therefore the most effective thing for activists to do is to work here and now for localism, within the settlements we live in. But our main purpose should not be to construct more compost heaps and community gardens etc., important though that is. It should be to be in the best position to persuade people in the town or suburb towards The Simpler Way perspective, above all to see that nice green, small localist reforms within the existing society will not save the planet. (See TSW: A Friendly critique of the Transition Towns movement.)

The major goal in this Stage 1 of the revolution is for the town to take control of its own fate, as much as is possible. Unfortunately many initiatives within the Transition Towns movement are only about individuals and groups setting up some good green ventures within an economy that is driven by external forces, and which leaves serious problems unattended to. We need the town to get to the stage where it says to itself, "What are our most urgent needs around here? What can we do collectively to fix loneliness, homelessness, the bored youth problem, unemployment...? Let us take control of our situation, let us get together to harness our resources and cooperatively and collectively do what we can to solve these urgent community needs."

# Stage 2: Making the big structural changes.

But that's only Stage 1 of this revolution and unfortunately the need for a Stage 2 is not well enough grasped by most people in green, localist etc. movements.

Suburbs and towns cannot produce for themselves anywhere near all the things they need. As they develop Economy B they will become increasingly aware of their need for many basic materials and goods that have to come from regional and national factories, such as wire netting, cement, 12 volt water pumps, polypipe, boots, radios... Meanwhile the global economy will be increasingly failing to provide for people, so they will be becoming more acutely aware that if their emerging local economies are to be viable then national economies must be reorganised to provide the small community economies with these (relatively few) crucial inputs. This will in time fuel increasingly strong demand for radical restructuring of national economies, including greatly increased regulation, the phasing out of unnecessary industries and transferring their resources to vital industries, enabling the establishment of new local communities, locating some factories in and near every town so they can export something into the national economy to pay for their necessary imports from it.

The immensity of these Stage 2 structural changes cannot be exaggerated. It is a mistake to think as some on the left do, that we can begin with them, by "taking state power." They can only be made late in the day when communities recognise that the local economies they are building require these radical restructurings of the national economy. When they do, it is not that we will demand that the state must do these things for us. We will extend our village level participatory and cooperative decision making approach into the regional and national economies, so that we end up running them ourselves through classical anarchist processes involving federations, delegates, referenda and thoroughly participatory control.

It should be evident by now that the appropriate label for The Simpler Way strategy is "Eco-anarchism."

=====

The foregoing argument has been that The Simpler Way is not optional. It is not one possible solution among many that we can choose from. Some of the detail sketched above could be debated but if the predicament is of the nature and magnitude outlined in the first pages we have no choice but to work for transition to something like the alternative outlined. Our chances of achieving it in the limited time left are not at all promising, but that does not invalidate the goal.

Aadrianse, A., (1997), Resource Flows, Washington, World Resources Institute.

Alexander, S., (2014), <u>The New Economics of Oil</u>, Sustainable Society Institute, Melbourne.

Ayres, R. and V. Vouroudis, (2013), "The economic growth enigma; Capital, labour and useful energy?", Energy Policy, DOI: 10:1016/.jenpol2013.06.001

Berndt, E. R., (1990), "Energy use, technical progress and productivity growth: a survey of economic issues", <u>The Journal of Productivity Analysis</u>, 2, pp. 67-83.

Diederen, A. M., (2009), <u>Metal minerals scarcity: A call for managed austerity and the elements of hope,</u> TNO Defence, Security and Safety, P.O. Box 45, 2280 AA Rijswijk, The Netherlands.

Dittrich, M., S. Giljum, S. Bringezu, C. Polzin, and S. Lutter, (2011), Resource Use and Resource Productivity in Emerging Economies: Trends over the Past 20 Years, SERI Report No. 12, Sustainable Europe Research Institute (SERI), Vienna, Austria.

Giljum, S., M. Dittrich, M. Lieber, and S. Lutter, (2014), "Global Patterns of Material Flows and their Socio-Economic and Environmental Implications: A MFA Study on All Countries World-Wide from 1980 to 2009", Resources, 3, 319-339.

Johnson, C., (2010), "Oil exploration costs rocket as risks rise", <u>Industries</u>, London, Feb 11.

Kaufmann, R. K., (2004), "A biophysical analysis of the energy/real GDP ratio: implications for substitution and technical change", <u>Ecological Economics</u>, 6: pp. 35-56.

Latouche, S., (2014), Essays on Frugal Abundance; Essay 3. Simplicity Institute Report, 14c. simplicityinstitute.org

Schandl, H., et al., (2015), "Decoupling global environmental pressure and economic growth; scenarios for energy use, materials use and carbon emissions", <u>Journal of Cleaner Production</u>, http://dx.doi.org/10.1016/j.jclepro.2015.06.100

Schütz, H., S. Bringezu, S. Moll, (2004), <u>Globalisation and the Shifting Environmental Burden. Material Trade Flows of the European Union</u>, Wuppertal Institute, Wuppertal, Germany.

Smil, V., (2014), Making the Modern World, Chichester, Wiley.

TSW: The Economic System. http://thesimplerway.info/Economy7p.htm

TSW: The Spanish Anarchists. http://thesimplerway.info/Spanish.htm

<u>TSW: The Transition Towns movement.</u> http://thesimplerway.info/TRANSITIONERS.htm

TSW: Third World Development. http://thesimplerway.info/THIRDWORLD.htm

TSW: Chikukwa. http://thesimplerway.info/CHIKUKWA.htm

TSW: Our Empire. http://thesimplerway.info/OUREMPIRE.htm

TSW: Peace and Conflict. http://thesimplerway.info/PEACE.htm

TSW: Your Delightful Day. http://thesimplerway.info/YOURDAY.htm

TSW: The Alternative Society. http://thesimplerway.info/THEALTSOCLong.htm

TSW: The Transition. http://thesimplerway.info/TRAINSITION.htm

TSW: Remaking settlements: The Potential Cost Reductions Enabled by The Simpler Way. http://thesimplerway.info/RemakingSettlements.htm

Victor, P., (2008), <u>Managing without growth: Slower by design, not disaster</u>. Cheltenham, Edward Elgar Publishing.

Warr, B., (2004), <u>Is the US economy dematerializing? Main indicators and drivers, Economics of Industrial Ecology: Materials, Structural Change and Spatial Scales</u>. MIT Press, Cambridge, MA.

Weidmann, T., Schandl, H., and D. Moran, (2014) "The footprint of using metals: New metrics of consumption and productivity", <u>Environ. Econ. Policy Stud.</u>, 26<sup>th</sup> June.

Weldon, D., (2016), Stunted growth: the mystery of the UK's productivity crisis, <u>The Guardian</u>, 25<sup>th</sup> April.

Word Wide Fund for Nature, (2014), <u>Living Planet Report</u>, WWF International, Switzerland.

For overviews and analyses of the main themes discussed in this document see the Simpler Way site, thesimpleway.info. Papers elaborating similar themes are available at simplicityinstitute.org.