

Peak Capitalism

**Our Opportunity to Choose
Between Survival and Collapse**

by
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Cover Photo: **“Sunset Over the Car Culture”**
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Executive Summary

We must face the prospect of changing our basic way of living. This change will either be made on our own initiative in a planned way, or forced on us with chaos and suffering by the inexorable laws of nature. - Jimmy Carter, as President in 1976

Introduction

The purpose of this paper is to ***ring the alarm bells*** loud and clear about the Sustainability Emergency; to ***examine the root causes*** of our predicament; and to ***propose a draft plan of action*** to save civilization from collapse.

The situation we face is so dire that it is unrealistic to expect any solution to our predicament that can maintain our current standard of living; there is great hardship ahead no matter what actions are taken. However, we can certainly achieve much better outcomes than we otherwise would if we claim our democracy and use it to take prudent actions to manage this emergency.

Such prudent actions are not possible unless the electorates of democratic countries become much better informed about the nature of our problems than they currently are. The education of the general public starts with educating the educated – the people who are already informed and concerned about some aspects of the Sustainability Emergency, but lack a realistic big picture view of our situation.

For reasons that will be explained in depth, Capitalism has now reached its limits to growth and is now commencing its terminal decline. This decline may involve a long and painful process of adjustment; it may consist of a staircase decline, where partial crashes are followed by partial recoveries; or it may consist of a single catastrophic economic and social collapse.

I consider a fairly rapid staircase decline, as seen after the crash of 1929 to the bottom of the depression in 1932, as the most likely time frame for this economic collapse to fully unfold. However, unlike the First Great Depression, this is far more than the bursting of a speculative bubble. This time there is no “bottom of the market” and there can be no sustained recovery of the economy to anything like its current form.

This paper proposes actions which are inherently democratic, as apposed to plutocratic. It is essentially a proposal for ‘we the people’ to depose Capitalism and replace it with Democracy.

It is also an unapologetically optimistic work, which relies on my belief that in times of crisis, the delusions propagated by Capitalism will be seen for what they are and that ‘we the people’ can then work together to institute real change to form a better and truly democratic world.

We are about to undergo cultural change of unprecedented magnitude and speed. This generation of thinkers and leaders will determine whether we recognise the need for urgent and fundamental reform of our economic and energy systems and act resolutely to save ourselves; or maintain our faith in Capitalism and follow it blindly to our own destruction.

“It is a mistake to think the times we are living in are like any other. These are extraordinary times.” - Russian philosopher P.D. Ouspensky (1878-1947)

The Sustainability Emergency

Our World is beset by a Sustainability Emergency.

It is made up of simultaneous, potentially catastrophic crises on several fronts:

- *Global Warming*
- *Population Growth and Limits to Food Production*
- *Destruction of Natural Systems*
- *Peak Oil and Gas*
- *Peak Capitalism*

These component crises are listed from the most long term in nature to the most immediate. Although each crisis justifies urgent coordinated action by our governments on a worldwide basis to prevent it becoming a global catastrophe, we are compelled by 'the tyranny of the immediate' to deal with the crisis of the moment. That immediate crisis is Peak Capitalism; the collapse of the economic system upon which we all depend for our food and other essential needs.

Global Warming

Our combustion of fossil fuels over the last two centuries has already resulted in significant effects on our planet's climate. We know that:

- 'The Big Melt' of 2007 saw an unprecedented amount of arctic sea ice lost at the height of the summer melt. In 2008, the loss was almost as severe, suggesting that the Big Melt was part of a trend of acceleration of the melting of arctic sea ice.
- The ice sheets of Greenland and Antarctica have accelerated their descent into the sea.
- Glaciers are retreating worldwide resulting in floods and droughts replacing sustained flows in the world's major rivers.
- There is already an observed trend towards long term loss of rainfall in the subtropical zones and consequent loss of food production capability. This is likely to intensify in the coming decades.
- Further climate change is now inevitable because of the long term nature of the effects of higher atmospheric concentrations of Carbon Dioxide (CO₂). Even the current accumulation of CO₂ in the atmosphere is likely to cause long term climatic changes and metres of sea level rise by 2100.
- There is strong evidence that we have already have crossed several 'tipping points' whereby the human induced warming is resulting in reactions that cause the warming to accelerate, including:
 - the melting of polar sea ice increases the uptake of solar heat by the water because the ice is not there to reflect the heat of the sun away.

- the melting of permafrost is resulting in the generation of large amounts of CO₂ and Methane as the organic matter decomposes.
- Huge quantities of stored methane are being released from the arctic sea beds as water temperatures rise.
- The climate change models used by the IPCC are proving to be seriously flawed:
 - the models project much slower melting of polar sea ice and the great icesheets than is actually happening
 - the models assume ongoing growth in the use of fossil fuels, but in reality we have 'peaked out' our oil. Natural gas is also close to peak and coal is set to follow within a few decades.

There are (quoting Donald Rumsfeld) "*knowns, known unknowns and unknown unknowns*" in our understanding of human induced climate change, but the best available evidence suggests that:

Unless we dramatically reduce our worldwide carbon dioxide emissions, several metres of sea level rise are probable within decades, rather than centuries.

This would result in the inundation by the sea of most of the world's major cities and great agricultural river deltas, which grow a large part of the planet's food.

Population Growth and Declining Food Production Capability

We are now very close to being unable to reliably feed the current world population of about 6.7 billion people and further population growth is in process - essentially unstoppable. The ongoing 2007/8 food crisis demonstrates just how close to outright famine we are.

The only way that population can be stabilised and then reduced, other than by mass starvation or all out war, is through providing all people with the means to escape the poverty cycle. It is well established that when people have a reliable food supply, access to medical care, access to education and freedom from war - they have smaller families. This is primarily because people that can be confident of raising their children to adulthood generally see that it is in their best interests to have smaller families.

The production of sufficient food to break the vicious cycle of poverty and population growth is now becoming much more problematic and expensive due to the ongoing loss of agricultural land and crop yields due to:

- The declining supply of oil to power the industrial agriculture that currently feeds most of the world.
- Global Warming, which is already causing long term loss of rainfall leading to desertification of once productive land and this is likely to intensify over the coming decades.
- The drawing down of ground water aquifers much faster than their replenishment rate, which is resulting in rapidly falling water tables in much of the world's grain producing regions. Due to ground water depletion over the coming decades:
 - America will lose about 20% of its grain harvest.
 - China will lose grain production to feed 120 million people.
 - India faces the loss of grain to feed 175 million people.

- Pakistan, Iran, Saudi Arabia, Yemen, Mexico and several sub-Saharan African countries which will inevitably suffer radical loss of food production.
- All the rivers that gave rise to the great civilisations are heavily depleted from being overdrawn, including the Nile, Tigris and Euphrates, Indus, Ganges, Yellow, Mekong, Colorado and Rio Grande.
- The topsoil that is the fertility of the land, the basis of agriculture, is being lost to erosion at an alarming rate due to deforestation, overgrazing, and extending agriculture into marginal land. In each case the native vegetation that holds the soil together is lost leaving the soil to be washed or blown away.
- The loss of native vegetation, particularly forests is causing long term reductions in rainfall. This is resulting in the advance of deserts in China, Central Asia, Africa (north and south of the Sahara), Mexico, Brazil and Australia.
- Soil degradation due to industrial agricultural practises, which result in the decline in organic matter and soil biota that are the basis of the soil's fertility. This results in ever increasing quantities of fertiliser required to maintain crop yields, large amounts of carbon lost from the soil and reduction of the soil water retention.
- Depletion of the mineral feedstocks used to make fertilizer, particularly natural gas (Nitrogen) and phosphate rock (Phosphorous).

Population growth and loss of food production capability are converging in a way that makes famine on a vast scale almost inevitable. If humanity is to avoid a Malthusian Catastrophe, the international community urgently needs to implement major initiatives to achieve both *population stabilisation* and *sustainable increases in food production*. Realistically, given the crises that are underway in the rich countries, the likelihood of such a sustained worldwide egalitarian effort to achieve these goals is very low.

Due to the degradation of agricultural land, regional desertification and declining supplies of ground water, phosphate, and crucially, oil, there is little hope of even maintaining worldwide food production, much less increasing it as our population continues to grow.

A Malthusian Catastrophe of unprecedented scale now seems inevitable.

Destruction of Natural Systems

We are currently consuming the natural capital of our planet at an unsustainable and alarming rate. We are destroying the very systems that support us and all other life on earth.

Deforestation

Most of the world's great forests are being lost at an alarming rate of around 13 million hectares loss per year due to logging and land clearing for grazing, food crops and increasingly for biofuels, particularly sugar cane and palm oil. However, the rate of habitat loss is much higher than this because much of the remaining forest is fragmented such that it is no longer a viable ecosystem that can support its native species.

Deforestation leads to other knock on effects including:

- top soil loss due to landslides and erosion by wind and water,
- CO₂ emissions due to loss of carbon from the forest itself as well as from the soil,
- alarming loss of biodiversity,
- long term loss of rainfall to the areas cleared.

Collapsing Fisheries

According to the UN FAO, 75% of the world's fisheries are now either overexploited, fully exploited, significantly depleted or recovering from overexploitation. Total worldwide catch has been on a plateau of 90-95 million tons since 1994 despite continuing intensification of fishing efforts. Alarm bells are ringing loudly:

- a [study](#) published in the scientific journal Nature in 2003 concluded that 90% of the "big" fish - tuna, swordfish, and marlin - are already gone. Catches of Blue Fin Tuna have declined by an astounding 94%.
- 29% of commercial fisheries globally have now collapsed and we are on a path to lose all fisheries by 2050.
- The once vast cod fishery of the Grand Banks off Newfoundland collapsed and was closed to fishing in 1992. Since then has been no recovery of the cod.
- The catch of North Sea cod has fallen from 300,000 tons per year in the mid-1980s to below 50,000 tons in recent years and seems to be collapsing.

Overfishing is not the only threat to the world's marine ecosystems. Some 90% of ocean fish rely on coastal wetlands, mangrove swamps, or rivers as breeding grounds. Well over half of the mangrove forests in tropical and subtropical countries have been lost. The disappearance of coastal wetlands in industrial countries is even greater. In Italy, whose coastal wetlands are the nurseries for many Mediterranean fisheries, the loss is an astounding 95%.

Higher ocean temperatures and ocean acidification caused by carbon dioxide emissions from fossil fuel emissions is threatening to completely destroy the remaining tropical reefs, including Australia's Great Barrier Reef.

Loss of Biodiversity

Everywhere humans settle, native species are wiped out through human predation, deliberate eradication, habitat destruction, introduced species (including diseases) and human induced desertification. Currently 784 described species have been declared extinct, and a further 65 are found only in captivity or cultivation. However, that's just the ones we know about; there are probably thousands more that slipped away before even being noticed.

According to The World Conservation Union [2007 Red List](#), the number of known species assessed as vulnerable, endangered or critically endangered reached 16,118 in 2006.

This includes 5,624 vertebrates, an alarming increase from 3,314 vertebrates known to be threatened in 1996. New additions to the list include familiar species like the polar bear,

hippopotamus, desert gazelles, several ocean sharks, many freshwater fish, and Mediterranean flowers.

Of the 40,168 species assessed using the IUCN Red List criteria, one in three amphibians, a quarter of the world's coniferous trees, one in eight birds, and nearly one in four mammals are now known to be in jeopardy.

Peak Oil

There is little doubt remaining that we have now reached maximum worldwide oil production and that total production is now set to decline at an accelerating rate over the next few years.

Our entire technological society is based on utilising energy from fossil fuels to power a complex system of machinery that provides our needs and wants. Petroleum oil is by far the most important of these energy sources. It has enabled personal transport, air travel and most importantly, industrial agriculture and the transport network which has provided the food to make the 'Population Explosion' possible.

In all these applications, there are *no viable alternatives* to replace oil in any where near the quantities required by our current system. We are totally unprepared for the monumental societal change that a declining oil supply will soon impose upon us.

With the approach of Peak Oil, it has not been feasible to significantly increase the supply of oil to meet rising worldwide demand since 2005. The resulting escalation of the oil price to July 2008 and the consequent escalation of prices of fuel, food and other essentials resulted in many Americans being unable to pay their mortgages and significant reductions in retail spending. This triggered the current economic crisis.

It is ironic that even though the actual peak of oil production imposed by geological limits may theoretically still be a few years away, the demand destruction that has resulted from even a mild escalation of the oil price has meant that OPEC has needed to cut production in an attempt to arrest the fall of the oil price.

Most of the investment in projects around the world to bring on new production or maintain production from declining fields is only financially viable if the oil price remains around US\$100 (2008 dollars). Consequently, this investment will be delayed until there is a recovery in the price and in the mean time, production from mature fields will continue its relentless decline. Hence it is almost certain that we have now witnessed worldwide Peak Oil in the early part of 2008 for economic reasons, rather than geological or political ones.

Peak Capitalism

Over the last three centuries, the Capitalist economic system (Capitalism) has enabled an explosion of scientific knowledge and technological capability unparalleled by any former human civilisation, or any other species that has ever lived on Earth. It has given those living in wealthy countries a standard of living incomparably higher than any previous society, higher even than the kings of former societies. It has also systematically exploited and impoverished a large part of the world's people in order to concentrate vast wealth and power in the hands of the rich elite that own its banks and other corporations.

Capitalism is a monetary system in which all money is created as interest bearing bank debt, through a system known as Fractional Reserve Banking. Because borrowers must repay both the debt and the interest incurred, there needs to be a corresponding expansion of the overall

money in circulation over the term of the loans or else some borrowers would be forced into default. This expansion of money supply can only come from expansion of overall bank debt.

That expansion of debt can only be sustained if there a corresponding expansion of real economic productivity ('economic growth') to provide the income to repay the debt. Hence Capitalism is totally dependent on ongoing economic growth, which can only be achieved through corresponding growth in the consumption of resources. It is this dependence on exponential growth of both the demand for resources and the discharge of waste products that is the primary driver of the Sustainability Emergency.

The demise of Capitalism has always been unavoidable because there are several limits to the economic growth on which it relies. Peak Oil just happened to be the first limit that we reached.

It is clear that Capitalism has now reached its peak and is undergoing a systemic failure, from which it can not recover:

- It can not survive the immanent terminal decline of its primary energy sources, particularly oil and gas. This is compounded by the lack of capital investment in developing new production that will result from the economic depression.
- It is close to reaching several other 'limits to growth' apart from oil and gas. We are depleting several other finite resources on which we are dependent to maintain our food supply and technological systems, including ancient ground water, mineral phosphate, copper and rare metals such as platinum, indium and tantalum.
- The expansion of personal, corporate and national debt in rich countries, particularly America, has reached way beyond that which could ever be repaid. As the debt bubble deflates and economic depression deepens, mountains of debt are being defaulted upon. This will make the further expansion of debt required for an economic recovery infeasible.

The Fall of Capitalism is the most urgent aspect of the Sustainability Emergency because we do not know any other way of providing the goods and services upon which we all depend.

The problem is compounded by the reality that Capitalism is more than an economic system; it is also effectively a religion. Its fundamental beliefs, although ridiculous, are held as sacrosanct by the overwhelming majority of the people and the entirety of our governments. Anyone who dares to question them is branded as a heretic; ridiculed and excluded from the system. This makes fundamental reform of the economic system close to impossible.

For several decades, America, more than any other developed nation, has maintained the expansion of money supply required to service their trade deficit, by going deeper and deeper into debt – national, corporate and private. In order to be able to keep borrowing, America has deployed any means available to keep their economy out of recession so that investment in the US economy could continue to return a profit. The final act of desperation to keep the game going was to escalate private debt to generate a vast bubble in house prices and consumer spending, along with a colossal scam in risk spreading financial derivatives.

Over the last two decades, China and Japan have bought up a major part of that debt, so as to maintain and grow their biggest market for manufactured goods. The oil rich nations of the Middle East have also made a major contribution so as to maintain the market for oil. Everyone wants to maintain the value of the US dollar because it is the de-facto world currency, which many countries hold as foreign reserves, and its collapse is effectively a collapse of the system

of international trade. For this reason, the current financial crisis has seen a frantic rush to buy the US dollar in a last ditch effort to prop it up.

As the American economy slides deeper into recession, it is becoming less and less tenable for America to continue to escalate their foreign debt, which has already reached such extreme proportions that there is no prospect of it ever being repaid. Extending America further credit into a depressed economy is the equivalent of throwing money into the sea; it can not continue.

America is bankrupt; and we don't know what is going to happen next.

A collapse of the US dollar is now almost inevitable, leaving America without the means to import the oil it needs for essential services, particularly food production and supply systems.

This is an exceptionally dangerous situation.

America now has two options for settlement: declare bankruptcy or 'print' dollars to send the economy into hyperinflation so that the debt can be repaid in worthless dollars. Both options are a form of default, however declaring bankruptcy is an honest settlement, whereas hyperinflation would be an act of reckless stupidity that would send America into full scale economic and societal collapse.

We're all in this together. As America's economy fails, it is likely to be a tragedy for far more than just the Americans.

The most immediate effect will be the downfall of the global market system and the economies of several other OECD nations. The economies of the emerging giants, China and India, will be initially be hit hard by the loss of their export markets, but their prospects for economic recovery seem comparatively good as they continue to grow their national economies. They may be able to take advantage of lower oil and other commodity prices, but only if destruction of oil demand in the OECD exceeds the declines in oil production due to depletion and lack of investment.

If America was unable to import sufficient oil to operate its essential services, there would be a total breakdown of the transport systems for food and everything else on which their society depends. The result would be systemic collapse and social turmoil. This would likely lead to martial law in order to contain the social unrest and a descent into warfare of one form or another. America is far too dangerous a beast to try to snatch its food away.

Beware of the wounded giant, particularly one with the largest offensive military capability ever known and a track record of using it, often recklessly. The US military industrial complex, under the immediate command of the President, acts as it sees fit, often with utter contempt for International Law, as we have seen in their execution of the current oil resource wars in Iraq and Afghanistan. We currently await the outcome of the brinkmanship between US/Israel and Iran. We also see a revival of the cold war as the US adopts a reckless and provocative stance towards Russia by installing ballistic missile facilities in Poland and other military facilities in the former states of the USSR.

Furthermore, America in systemic collapse would no longer be the world's largest food producing nation. Its food production and supply system would be crippled by the shortage of oil and likely by social dysfunction. *Even now, the world can not feed itself without America.*

Some form of international treaty is urgently required to enable the available oil to be produced and shared on the basis of the essential needs of each country, rather than relying on the current market system, which is now collapsing.

How this will all play out is highly unpredictable; it depends largely on the actions taken by the governments of the major economic and thermonuclear armed powers, particularly the United States, China and Russia. Those actions are inherently unpredictable because the decisions will be made upon 'faith based' assessments of strategic national interests rather than 'reality based' considerations of social justice and planetary survival.

However, we can be sure of this:

Capitalism has reached the end of its viable life and is dieing.

We must not waste our resources trying to maintain Capitalism on life support; we must take this opportunity to form an entirely new economic system that is not dependent on growth and allows us to begin the transition to a sustainable society.

The Failure of Capitalist Democracy

"If you don't look where you're going; you're always going to crash."

- advice from Lionel Orford to daughter Lucinda aged 20 months.

The problems that make up the Sustainability Emergency are long term in nature and (except for global warming) have been known to our governments for over 30 years. Allowing these problems to develop to the stage where emergency action is required to avoid the collapse of civilisation and the entire planetary ecosystem represents a *profound failure* of the worlds leading Capitalist nations to exercise good governance.

Our nations are nominal democracies, whose governments rule with our consent. Hence the failure of our governments is a failure of the majority of us to vote for good policy and to hold politicians accountable for their actions and inactions.

Like the Sustainability Emergency itself, there are several interrelated factors involved in our failure to competently govern ourselves through Capitalist Democracy.

The Power of Money

Who controls the food supply controls the people; who controls the energy can control whole continents; who controls money can control the world. – Henry Kissinger

There is no doubt that the influence of Big Money on capitalist democracy is profound. It has significant influence via financial contributions to political parties, lobby groups, etc, but Big Money has much greater influence in several other ways, which are far less obvious to the general public.

Firstly, our money is created not by the government, but by private banks in the form of debt that incurs interest. By control of the money supply, the banks accrue vast wealth to the small elite who own them and effectively control world commerce, governments and 'we the people'.

Secondly, governments must keep business profitable for the sake of maintaining the economy. This compels all governments to do anything within their power to keep all major employers in business and the financial system functional.

Thirdly, Big Money controls the main sources of information to the electorate. This includes control over what gets shown on major TV networks, what is heard on the radio, what is printed in major newspapers and posted on their internet sites.

In more intellectual circles, Big Money has great influence through sponsoring 'think tanks' to promote the views of the rich elite and to deliberately distort and sow confusion into the debate. This creates a perception that "the experts are divided", which inevitably results in stalling reforms to tackle important issues such as global warming and Peak Oil, so as to maintain business as usual.

Big Money also significantly affects our society through the cultural effects of advertising, whereby the general public is incessantly told that they can improve their self worth and social status by buying the latest thing and more of everything. Over time this has exacerbated a culture of materialism and conspicuous consumption.

A democratic government can only make changes that the people call for, which means that it will never be more prudent than its electorate. When people have grown up in a capitalist

culture and informed largely by the propaganda of capitalism, it comes as no surprise that they vote to support the system that pays their wages and gives them a high standard of living.

Short Term Interests

Governments remain in power only if they act in the perceived short term interests of the majority of their electors.

It is *always* in the short term interests of the electorate to keep the current economic system running as well and as smoothly as possible. Governments are unable to make fundamental changes to the system because such changes are always detrimental to a significant sector of the economy and jobs would be lost.

Major change only happens when there is a consensus within the electorate that there is an urgent need for such change. This only occurs when there is a major crisis.

While governments are *perceived* to be delivering in the self interests of the majority of their electors, they can get away with corruption, inaction, high crimes and misdemeanours.

The leaders of America, Great Britain and Australia were all *re-elected* after it had become widely known that their pretext for the invasion of Iraq was a fraud – obvious to anybody willing to see it. We accepted our leaders involving us in the military invasion of a country that posed no military threat whatsoever, justified by a web of lies from their own mouths. That was ‘bad form’ but we accepted it, so long as they didn’t raise our interest rates or our taxes.

Maintaining Confidence in the System

A loss of confidence can have devastating effects on the economy and on the political fortunes of the government of the day - the system would flounder on their watch. Hence all problems that have no easy solutions are covered up, denied and downplayed for as long as possible. Global Warming, Peak Oil and the US debt crisis are prime examples.

This amounts to maintaining confidence in a system that is known to be doomed, rather than face up to the need for the fundamental changes that could save it.

Tokenism

When a significant number of people in the electorate become concerned by an emerging problem, global warming being the primary case in point, our governments are compelled to be seen to be ‘doing something about it’. Their response is invariably to enact token gestures, like putting up a few solar cell arrays, putting up wind farms, researching carbon capture and storage and enacting emissions trading schemes, but nothing that is in any way serious about dealing with the fundamental problems.

In reality, such tokenism is worse than doing nothing, because a perception of progress is created within the electorate and the proponents of change are quietened, even as the fundamental problems continue to escalate.

Cultural Beliefs

As an individual, it is simply not possible to establish your understanding of the world from what you can personally verify. We all take on ‘accepted truths’ as part of our cultural belief system

and base our world view and reasoning upon them - whether those 'accepted truths' are correct or manifestly erroneous.

All culture is based on passing on the myths, knowledge, skills and strategies that have proven successful to previous generations. Capitalism has come to dominate our culture and its central cultural narrative is the Myth of Progress - that through capitalism and technology, our affluence and technological prowess perpetually increases over time. It is the outstanding success of capitalism in actually achieving such progress for the last two centuries that has resulted in this myth becoming so deeply culturally entrenched.

The insane belief in perpetual economic growth and the faith that technology can solve all problems are the most dangerous aspects of the Progress Myth because these have become 'articles of faith' to most of our society, especially within the apparatus of our governments. Almost all public debate is based on these farcical assumptions and anybody that dares to question them is treated as a heretic; ridiculed and excluded from the debate.

In order to maintain this cherished belief in Capitalism, our society is engaged in collective denial of the reality before us.

Collective Denial

"It is true that you may fool all the people some of the time, you can even fool some of the people all the time, but you can't fool all the people all the time." – attributed to Abraham Lincoln.

Even after considering the all of the above factors in the failure of Capitalist Democracy, it should be recognised that we only have our collective selves to blame.

All the people have not been fooled all the time. The problems have been well known to anybody interested in hearing about them for decades. This has been especially true since the publication of "Limits to Growth" in 1972. The reason that so few know about the Sustainability Emergency is that the people that make up governments and electors alike *are in collective denial of the effects of our chosen way of life.*

Advertising only works in seducing us into materialism because it exploits the characteristic of humans of being generally greedy, selfish and status conscious. Advertising exploits and nurtures those characteristics, but it did not create them.

The majority denies the long term effects of capitalism because the system benefits them in the short term. The corporate news media sells to a market and hence tells the people what they want to hear, which is that *Capitalism is Great!*

People continue to believe what they want to believe and to deny what they don't want to believe. This applies regardless of the intelligence of the person concerned. Quoting Winston Churchill:

"Men occasionally stumble over the truth, but most of them pick themselves up and hurry off as if nothing ever happened."

While denial of the Sustainability Emergency remains tenable, we will not act to save ourselves. Instead, we will remain in a state of political paralysis while the opportunities to take mitigating actions pass us by and planetary catastrophe becomes inevitable.

Our governments have failed us because we have elected them according to our short term interests and have chosen to remain in collective denial of the long term consequences our lifestyles.

Democracy has not failed us; Democracy has enabled us to choose failure.

As Winston Churchill famously said:

“Democracy is the worst form of government except all those other forms that have been tried from time to time.”

For all its failings, there is no better system of government than Democracy. When the electorate is properly informed about the emergency, they will rally to the cause and support the actions required to best deal with it, even when those actions involve personal hardship.

It is now incumbent on everyone that recognises the Sustainability Emergency to speak up to denounce the collective denial, inform the public about the seriousness of our predicament and contribute to rational debate regarding the best management plan. In this way, democracy can become a powerful force for fundamental change to achieve the best possible mitigation of the Sustainability Emergency.

Peak Capitalism: An Opportunity for Fundamental Change

The collapse of Capitalism is now bringing the Sustainability Emergency to a head.

The approach of Peak Oil has resulted in supply not keeping up with demand over the last few years. The resulting escalation of the price of fuel, and consequently food, has resulted in many Americans being unable to pay their mortgages and significant reductions in retail spending. This has triggered the bursting of the debt bubble, which is the immediate cause of the current economic crisis.

The crisis is now gathering momentum as more and more people lose their jobs and become unable to pay their mortgages and other debts. They are also unable to spend any money to support the retail economy, resulting in further job losses and bankruptcies.

As this crisis escalates towards economic collapse, it will no longer be in the short term interests of the electorate to maintain 'business as usual' – *there will be no 'business as usual'*. 'We the people' will demand that our government acts.

Quoting Milton Friedman:

“Only a crisis—actual or perceived— produces real change. When that crisis occurs, the actions that are taken depend on the ideas that are lying around. That, I believe, is our basic function: to develop alternatives to existing policies, to keep them alive and available until the politically impossible becomes politically inevitable.”

Once there is general recognition that this is indeed an emergency, governments will be compelled to overcome the political paralysis by declaring a State of Emergency. In so doing, governments suspend 'business as usual' and enact whatever means they deem necessary to deal with the emergency. This is the type of change that was seen in Britain, Canada and Australia at the commencement of World War 2 in 1939 and later in America in 1942.

When the State of Emergency is recognised, there is a very serious risk that governments will attempt to deal only with the economic crisis and fail to deal with the greater Sustainability Emergency. The actions that will be taken are highly unpredictable but fall into three major categories:

- **Prudent Actions:** enacting prudent and effective emergency measures to maintain essential services and create employment, followed by fundamental reforms to facilitate transition to a sustainable society powered by energy sources that do not emit carbon dioxide.
- **Stupid Actions:** rapid descent into warfare as America tries to plunder as much of the remaining oil as they can by waging war. Obviously, this is already happening and there is a risk of escalation to an Armageddon scenario – full scale war between thermonuclear armed superpowers.
- **Ineffectual Actions:** continuing to limp along, denying the fundamental problems and trying to revive Capitalism. This would lead to escalating economic and social dysfunction; the failure of essential services, social unrest, martial law, war, famine and the collapse of civilisation.

In my opinion, the Ineffectual Actions scenario is by far the most likely because it is simply a continuation of what is already happening. The Stupid Actions scenario seems less likely because America simply doesn't have the oil or human resources to conduct a major war. America is a bankrupt and vulnerable nation posturing as a powerful one.

A democratic government can only make changes that the people call for, which means that Prudent Actions are only possible if a large part of the general public understands our predicament and the nature of the fundamental reforms required. It is crucial that those that recognise and understand the Sustainability Emergency come to hold sway in public debate rather than the believers in Capitalism, who will undoubtedly advocate more of the same thinking that led to this emergency.

This generation of thinkers and leaders will determine whether we use Peak Capitalism as an opportunity to make the fundamental changes required to manage the Sustainability Emergency, or allow the crisis to escalate into the collapse of civilisation.

A Proposal for Transition to a Sustainable Economy

The following is proposed as a preliminary plan for discussion amongst all those who are willing to acknowledge the reality of our predicament, think beyond the paradigm of the current system, and rationally discuss the fundamental reforms required to avoid catastrophe.

Step 1: Emergency Management

Changing to Emergency Management Mode

We are as dependent on our complex system of food production, processing and transport in the same way as the passengers of a ship on the ocean are dependent on the ship staying afloat. When the ship is sinking, the business of the voyage must be abandoned and the crew must mobilize any available means to try to save the ship. There are no lifeboats, and even if a few could be improvised, they would only condemn those in them to a slow and miserable death on the high seas.

As the economic collapse becomes undeniable, our governments will need to declare a State of Emergency that enables them to suspend business as usual and mandate that all necessary resources are dedicated to maintaining essential services. The failed Capitalist economy will need to be replaced by an emergency command economy.

We also need to recognise that this is a global emergency and accordingly, all countries need to cooperate through the UN to form the international agreements required to ensure that each country is able to access its essential requirements and that all countries partake in the reforms required to save civilisation and our planet.

Maintaining Essential Services

Governments throughout the developed world will probably need to directly intervene to create a command economy to ensure that the economic collapse does not cause the breakdown of essential services. It is important to understand that this is a failure of our economic system rather than a failure of the actual means of production of our essential goods and services.

Many millions of people who have lost their incomes will need to be provided with food, water, housing, medical care, electricity and sewage treatment. It is proposed that this be achieved through government issued ration system that provides every person with their essential needs. Such rations would need to be non-transferable so that a no black market in rations is possible.

A system of fuel rationing will be required to ensure that the available fuel is dedicated to the production, processing and distribution of food and other essential services as the supply of oil dwindles. This will entail a progressive shutting down of as many non-essential commercial and private activities as required to reserve sufficient fuel for essential services.

A Moratorium on Housing Foreclosures and Evictions

As the economic crisis deepens, it will be necessary to acknowledge that those that find themselves victims of this disaster cannot be held responsible for it. These people need shelter like anybody else and it is immoral and impractical to throw them all out on the street.

This is already happening on an informal basis due to the inability of the creditors and the courts to process the avalanche of foreclosures that is already occurring. My message to people

forced into mortgage default is “*stay in your houses*”; there are simply not enough bailiffs to evict all of you simultaneously. A formal moratorium is required urgently.

This moratorium will remain until such time as an International Monetary Treaty can be established and the terms of settlement of debts, both national and private can be agreed.

An International Monetary Treaty

The global economy is crashing. Like a crashed computer, it is no longer able to function even though the hardware is still useable. The fatal error that has caused this crash is the Capitalist money system. There is no point in trying to run the same flawed system up again; it can only crash again.

This paper proposes a new money system, the rules of which would be defined by an International Monetary Treaty (IMT) to be agreed through the United Nations.

The fundamental basis of Capitalism is the power of the banks to create money as debt and to charge interest on that debt. This results in the money system being dependent on continuous expansion of debt and therefore ‘economic growth’, and in the concentration of wealth and power in the hands of a rich elite. The proposed IMT would transfer the power to create money to ‘we the people’ through our governments. It would also eliminate the hegemonic power that America derives from having its currency as the world currency.

The collapse of global Capitalism means a breakdown in the international system of trade. All nations are dependent on international trade to provide some part of their fundamental requirements, so we must re-establish a functional trading system as a matter of urgency. It is now time to declare “game over”, settle the scores, and start again with a new set of rules for international trade.

The proposed IMT would include the following articles:

- The legal right of banks to create money as bank debt and to charge interest on that debt would be withdrawn. Money would be created by ‘we the people’ through the treasuries of our Governments, as needed to facilitate the trade of goods and services.
- Each national government would be responsible for issuing their nation’s money into circulation via direct government spending and interest free loans, and for reclaiming that money through taxation and loan repayments so as to maintain a stable value of their currency.
- International trade would take place in a new international currency unit, referred to here as the “Geo”. A UN chartered World Central Bank would determine the exchange rate of each national currency so that governments that ran inflationary monetary policies would have their currency devalued accordingly against the Geo and those that balanced their money supply would maintain a constant exchange rate.
- All bankrupt corporations (including the banks) would initially be nationalised by their country of incorporation and their assets used to provide for the common good of the people.
- Each nation would take possession of all assets located within its borders, regardless of nominal ownership.

The IMT is essentially a proposal for ‘we the people’ to take advantage of the situation where Capitalism has collapsed to finish it off once and for all. Even though Capitalism is terminally ill, it’s not dead yet and we can be sure that the rich elite will fight to the last breath to retain their enormous power to create and control our money.

It is important to note that this is not a proposal to eliminate free enterprise, but to depose the Banks from controlling our money and burdening us with interest; free enterprise and private ownership would be retained and supported. As a new economy is established, nationalised companies that were suitable to compete in a free enterprise environment could be re-privatised.

Because the culture of Capitalism has such enormous influence over the minds of the people and our governments, it seems unlikely that such an IMT will be adopted immediately. It seems more likely that the existing system will be restarted with a few minor changes that do not address the fundamental problem, leading to partial recovery followed by further failure of the monetary system.

An Oil Production and Sharing Treaty

It is imperative that the global economic collapse does not result in a collapse of oil production, which would be catastrophic. Hence there needs to be an international agreement to ensure that oil producers are paid and the investment in new supply continues, so as to limit the rate of decline to a manageable level. Some form of IMT is required urgently so that this can be made possible.

It is also imperative that the burden of reducing our consumption of oil to match the available supply be shared by the international community so that essential services can be maintained in all countries and systemic collapse can be avoided.

Provisions are required to ensure that oil is apportioned according to need rather than price. Heavily oil dependent countries, most notably the US, need to maintain supply of sufficient oil for their essential services. Since it is highly unlikely that they would initially be able to pay for that oil through international trade; some form of special consideration will be required.

In return for such consideration, these countries would need to formally commit a process of rapid transition to a less oil dependency in their own societies and commit to providing substantial practical assistance to poor countries to break the poverty cycle through education, medical care and the development of self sufficient food production and other essential services.

Dealing with America

It is unlikely that America will readily agree to any form of international treaty because they regard any international agreement as relinquishing their sovereignty. Even as their empire collapses, the ruling elite is far more likely to pursue their current policy of seeking to appropriate the world's resources through threatening and subversion of other governments, as well as outright military aggression. Although this is the path to certain failure, there is a significant risk that America will escalate the current resource wars rather than admit that their era of world domination is over.

As a means of last resort, it may be necessary for the world community to resolutely stand together to cut off their supplies of imported oil in order to disable the military industrial complex and prevent full scale war. If maintained for a few months or more, such action would result in a systemic collapse of their entire society leading to catastrophic civil strife, famine and mass deaths. This is to be avoided at any cost – except full scale war.

It is imperative that the world community allow America a way to step down with dignity from the potentially catastrophic situation they now face. The basic deal would need to be one of debt

forgiveness and an arrangement to supply America with sufficient oil to keep their essential services operational in return for a binding commitment to cooperation with international community to implement the fundamental reforms needed to deal with the Sustainability Emergency.

If war can be avoided, America has a great deal to offer the world. Most obviously, America is by far the world's largest food producer, without which the world cannot feed itself even now, and this reliance is almost certain to increase in the coming decades.

Also crucially important is the scientific and technological prowess of America, which the world urgently needs in order to develop new technologies to phase out fossil fuels and find sustainable ways to grow more food.

Step 2: Building the Infrastructure Needed for the Future

An emergency command economy is highly undesirable as a long term solution and should be phased out as soon as practicable. There will be an urgent need to get people back to work so as to re-establish a functioning society and there is no shortage of work to do to.

We need to build a multitude of new facilities to enable the phase out of fossil fuels and to develop and implement sustainable agricultural systems to feed the world going forward. The proposed plan would entail direct government spending on major projects to be owned in common by the people. This would provide the primary capital for a new economy. Private enterprise would provide services to the projects thus circulating the money through the economy. Where required, interest free loans would be made to private enterprises to enable them to get established or re-established following the economic collapse.

Specific major projects are proposed:

- National electric railway networks for freight and passenger rail
- Solar Thermal Storage electricity generation on a huge scale
- Large expansions of the electricity transmission networks
- Development of new generation nuclear reactors to burn Uranium238 and/or Thorium in countries where solar thermal storage is impractical
- Research and development of sustainable agricultural systems, including the use of 'agrifar' to sequester carbon into the soil.
- Re-deployment for new purposes or materials salvage of buildings and machinery left unused due to the economic collapse.
- Research and development of production of oil from algae on a vast scale.

It is essential to understand that all this development will need to be undertaken in a world constrained by steep declines in hydrocarbon fuels. Thus whatever fuel is available will need to be dedicated to providing essential services and building the things we need for the future. It is simply not possible for the current profligate personal energy consumption to ever resume.

This implies that there can never be a resumption of the consumer economy and the commerce and employment that it once provided. Large numbers of people who formerly worked in the consumer economy will remain unemployed and dependent on the dole for their basic needs.

Direct government spending will be required to support these people for some time. This spending is absolutely necessary because the systems of production of essential goods and services can only continue to function if people have money to buy those goods and services. It is equally important to understand that, once a money stock is established, all the money spent by government must be reclaimed through taxes so as to not render the currency worthless through inflation.

Having large numbers of people on the dole is highly socially corrosive because these people are denied a useful role in society; it is not a long term solution. Hence we must conduct programs to involve these people in the betterment of their communities and to develop the new skills needed for a sustainable society. The development of permaculture community gardens (where land and water are available) is an example of the type of programs needed.

In order to develop these new systems worldwide, a greatly expanded Peace Corp is proposed. The resources of the great powers currently dedicated to the military, as well as a large number of unemployed people could be trained as educators, engineers, agriculturalists, doctors, etc and deployed throughout the poor world to assist these people out of the vicious cycle of poverty and overpopulation through education, infrastructure building and development of self sufficient organic agriculture. This would truly be a “win win” for everyone involved.

Step 3: Transition to a Sustainable Economy

Once we have dealt with the immediate emergency of the collapse of Capitalism, established a functional international monetary system and gotten people back to work building the infrastructure we need for the future, we need to look at the long term plan for a sustainable society.

Guiding Principles for a Sustainable Economic System

In order to formulate plans for transition to a sustainable economy, we need to consider the essential requirements of such an economy. Seven guiding principles for formulating a sustainable economy are proposed for discussion:

1. Money must be used to facilitate the exchange of goods and services for the common good. It must not be manipulated to concentrate the wealth and power of a rich elite.
2. The system must deal effectively with the Sustainability Emergency and begin to heal the planet.
3. The needs of everyone must be met before anyone is entitled to any surplus.
4. The process of transition must lead to a society in equilibrium with the planetary ecosystem, which implies an economy that functions without growth and achieves complete recycling of all finite resources.
5. The physical assets of the current system must be preserved as far as possible and used for the common good.
6. The cultural assets of enterprise, initiative, creativity, knowledge and skills that developed under Capitalism must be preserved and rewarded.
7. Quality of Life rather than Wealth and Status must become the overriding aim of society.

Note that all these principles, except No.6, directly conflict with Capitalism.

The Cultural Transition

Capitalism is our culture; its values and assumptions are fundamental to the way we see the world and the overwhelming majority cannot even conceive of any other way to live their lives. It will take time for people to come to terms with the death of their way of life, to accept the need for fundamental change and to revise their belief systems and fundamental values.

Only when a significant part of the community understands and accepts the need for a new monetary system will the necessary reform become politically viable. Hence it is absolutely essential that those of us who recognise the fundamental problem with the Capitalist monetary system express their views as prominently and widely as possible. As noted by German philosopher Arthur Schopenhauer:

*All truth passes through three stages:
First, it is ridiculed;
Second, it is violently opposed;
Third, it is accepted as being self evident.*

We will need to persevere despite ridicule and opposition before the need for change is accepted as self evident.

The Energy Transition

As modern humans we are all totally dependent on a highly complex system of production that provides our essential goods and services. That system requires large amounts of energy in order to function. We now face an urgent need to phase out the fossil fuels that currently provide most of that energy because of the need to dramatically reduce carbon emissions and because of the declining supply of all fossil fuels, most imminently oil and gas.

It is not possible to conduct a demographic transition to a self sufficient agrarian society that is not dependent on an energy intensive system of production in the time frame available to us. Such a transition would take centuries, whereas the required transition will be imposed upon us in decades. Hence, we must replace fossil fuels with energy sources that do not emit carbon with all possible speed in order to avoid the collapse of civilisation.

There are only two such energy sources currently available that are feasible for replacement of fossil fuels on a large scale; Solar Thermal Storage and Nuclear. Both of these produce electricity rather than liquid fuels, which implies that we need to replace our oil powered infrastructure with electric powered infrastructure.

This represents probably the greatest challenge ever faced by modern humans due to the sheer magnitude of the infrastructure required and the reality that this work must be done in a world of declining oil supply, declining agricultural productivity and probably other competing priorities due to climate change.

In the early decades of the transition, it may be feasible to greatly reduce our use of fossil fuels but some will be required for the foreseeable future. Coal and natural gas will be required for backup electricity generation for systems with large amounts of solar thermal generation and to meet load swings in systems dominated by nuclear power. In the long term, this backup and swing capacity could be provided by pumped storage hydro generators, but this is another major infrastructure project and not an immediate priority.

Even if we achieve the best possible scenarios, we will be forced into lifestyles that are much more energy austere than those we have grown up with. However, if we work together it may

be possible to achieve lifestyles that meet all our needs perfectly well and are potentially far more rewarding than the materialist society of today.

The Transport Transition

All of us living today are highly dependent on the complex system of transport that supplies us with the goods required to keep our complex society functioning. With the coming declines in available oil supply, there is an urgent need to dramatically reduce the amount of transport that our lifestyles entail, as well as to provide replacement systems for essential transport that are not dependent on oil.

This will entail transition

- From oil powered road freight to electric powered rail freight
- From oil powered sea freight to wind powered sea freight
- From food produced all over the world to mostly locally produced food
- From a car commuting to a public transport and bicycle commuting
- From cheap mass market air travel to expensive and exceptional air travel and mass market high speed rail
- From single occupant car travel to shared car travel and eventually, to a lifestyle without cars altogether.

There is no electric powered alternative to the hydrocarbon fuels for many transport applications including local pickup and delivery services currently provided by trucks, earthmoving equipment, personal travel to rural locations and all aviation. Hence we will remain dependent on some hydrocarbon fuels for the foreseeable future.

In gas rich countries such as Australia, compressed natural gas (CNG) is a potential transitional fuel to power the vehicles and machinery required to maintain essential services and build the vast infrastructure required to phase out fossil fuels. However, it is essential to realise that natural gas is not a replacement for oil as it is already close to peak production on a worldwide basis and will be in very short supply within a few years.

Given the enormity of infrastructure works required and the scarcity of hydrocarbon fuels required to undertake those works, it seems highly unlikely that there will be sufficient resources to replace private cars with electric alternatives. We will need to use a small portion of the existing vehicle fleet for essential travel. Cars will generally be fully loaded when they are used as they are in poor countries today.

In the longer term, a small fraction of the liquid fuel we currently consume could be provided from biofuels. The biofuel that seems most promising is the farming of lipid rich algae on a vast scale. This offers the advantages that it does not compete with food production, does not require fresh water and draws down CO₂ from the ocean.

In every case, the transition involves reducing transport overall and adopting more locally based lifestyles. As new renewably powered transport systems are established, there may well be a re-establishment of recreational travel but this would entail a much smaller number of trips, each trip taking up a longer period of time. Overseas travel will be a significant undertaking, much as it was in the 19th and early 20th centuries.

The Food Transition

We face a worldwide food crisis of unprecedented scale. However organic farming has vast potential to simultaneously:

- reverse the loss of fertility of our agricultural land,
- reduce dependence on industrial fertilizers and oil,
- reduce the amount of water needed by improved soil water retention,
- reduce atmospheric CO₂ by sequestering vast amounts of carbon in the soil,
- improve the self sufficiency of food production in poor countries.

The technology of making 'Biochar' or 'Agrichar' (essentially activated carbon) from any available plant material and introducing it to the soil, shows great promise as a means of radically improving soil fertility and directly sequestering large amounts of atmospheric carbon in the soil. The process of creating the Biochar also produces high grade renewable energy that can be used for power generation and other uses. This technology rapidly improves the fertility of depleted soils and can provide a major boost to organic farming. It should be developed on a vast scale.

What is now required is a monumental effort by the wealthy countries to work together to develop these organic farming methods around the world so as to have any chance of feeding the population of the planet going forward and developing the food security that is crucial to population stabilization and reduction over time.

The new economy proposed here will not produce anywhere near the levels of employment for people in cities as the Capitalist system has. However, the organic agriculture proposed will require far more human labour than the present industrial agriculture, particularly in a world of declining oil supply. Over the coming generations there needs to be a migration of people from the cities to the food producing areas so that they can work the land and be closer to their food supply. However, it must be understood that this is not a solution to the current emergency; it will take generations to unfold.

The Transition to Equilibrium

The proposals put forward in *Step 2: Building the Infrastructure Needed for the Future* all involve real economic growth. However, the fundamental problem with Capitalism is its dependence on growth, which can not continue due to the limits of a finite planet.

Growth is inherently a transitional phase of the development of any system. In order for any system to be sustainable it must achieve equilibrium with the environment within which it functions. So we must plan for the phase out this growth as the infrastructure projects and supporting systems are completed.

Growth utilises resources and human productivity and as it reduces towards zero to achieve an equilibrium state, the resources consumed and the human productivity required are reduced accordingly. Simply stated; far less human labour is required to maintain an equilibrium economy than a growth economy.

Hence we need to transition to a lifestyle where far less of our time is spent working and far more is dedicated to fulfilling our human potential through other means, which could include

involvement in music and the arts, philosophy, inventing new toys, recreational travel and involvement in our local communities, particularly in support of our elderly people.

We are all deeply socially conditioned to believe that we must work hard most of our lives. The need to work hard most of our lives actually arises out of the need for labour to maintain economic growth and to pay the interest on the ever expanding debt that is inherent to Capitalism.

In the proposed new economy, there would be no interest on debts, almost no debts to be repaid, far less material consumption and far lower income required to meet our needs. We need social policies to promote job sharing, part time work and early retirement so as to transition to lifestyles involving far less work per individual.

In order to achieve equilibrium, we must develop systems to almost entirely eliminate waste including:

- Phase out of disposable food packaging in favour of containers that are durable and re-usable or made from plant material and completely biodegradable.
- All manufactured goods must be designed for maximum lifespan and designed so that they can be disassembled into totally recyclable components at the end of their viable life. Materials such as fibre-glass and resin composites would be eliminated.
- Phase out the discharge of sewage into the sea in favour of returning the water and the nutrients it contains to the land.

Conclusion

The transition to a post-capitalist society is an enormous, difficult and unprecedented undertaking in cultural change, however the story unfolds.

The Sustainability Emergency is so advanced and so serious that a disaster involving the deaths of billions of people and many more entire species may be unavoidable. However, we are far more likely to achieve the 'best possible' outcome if we acknowledge reality, manage the emergency, and work towards a transition to a sustainable society.

The alternative is to let events take their natural course, which is to maintain belief in Capitalism and follow it blindly to our own destruction. This is the path to the collapse of civilization and much of life on Earth.

The fall of Capitalism offers us an opportunity to escape the power of its belief system and to choose Survival over Collapse.