

Earth Manifesto



Intelligent Precautionary Principles Enunciated - Holy Cow!

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I. Introduction

We human beings are evolutionarily adapted to be social animals. This is our true human nature. The survival of thousands of generations of our hunter-gatherer ancestors depended on close cooperation between males and females, and between members within clan groups. Our ancestors depended on cooperation and group cohesion much more than on individual selfishness or ruthlessness in competition.

Natural selection honed human beings to be disposed to share food, shelter and child-rearing duties with other members of the groups in which they lived. Social misfits and freeloaders and pugnacious non-conformists were likely ostracized or banished, along with those who were unwilling to help provide for the greater security of the group or abide by communal rules for things like cave hygiene and rubbish disposal. Such clan discord diminished the prospects of being successful for all clan members in their common evolutionary goal of surviving to pass their genes on to their offspring in future generations.

With the advent of the Agricultural Revolution, the size of in-groups expanded and they became more focused on extended families and their agrarian communities. In essence, as the civilizing influences of living in ever larger communities increased, human groups became more "domesticated" and civilized, and behaviors consistent with Golden Rule reciprocity came to be more important and providentially adaptive.

In modern times, sink-or-swim Social Darwinism became fashionable among elites, who gained most of the wealth generated by the Industrial Revolution, and on-your-own economic ideologies became dominant. But the main current of our social success as a species resides in reining in those with excessively greedy or violent impulses in order to ensure that the groups to which we belong survive and achieve a good degree of well-being.

Today, another revolution is underway, and those who survive will likely be the ones who are smart enough and committed enough to the societies in which they live to champion greater good goals. Our social groups have grown in size to encompass towns, cities and nations, and the entire human race, so our collective survival depends on more collaborative problem solving and a greater commitment to revolutionarily transforming our modes of living to ensure they become sustainable.

The realization is growing that we are all intricately, inextricably interconnected and distinctly interdependent. Greed, selfishness, and anti-social inclinations to avoid contributing to the greater good will prove to be dead ends in evolutionary terms. The foresight essential to farsighted precautionary principles will be vital for the long-term

survival of our species. I encourage readers to consider the ideas found in *Revelations of a Modern Prophet* for a more expansive insight into such ideas.

Lessons of history tell us we would be wise to make greater collective commitments in the future to civilizing influences. We should find ways to encourage impulse control, improve long-term planning, and become more honestly sensitive to the feelings and fates of others. Win/lose ethics of ruthless competition, exploitation and obedience to authority must give way to win/win ethics of reciprocity, collaborative problem-solving, recognition of consequences, and commitments to fairer outcomes.

"We are all in this together", so win/win solutions are the most advantageous ones. Such solutions equitably include the negative motivation of experiencing lose/lose outcomes if cooperative efforts fail. Win/win and lose/lose situations are preferable to win/lose situations because they provide more powerful motives to strive together for common purposes, rather than to work against each other. Win/lose strategies tend to poison relations between people, not improve them. Life can be a "non-zero-sum game" in which cooperative initiatives like precautionary planning, sensible divisions of labor, fairness in international trade, and the farsighted sharing of technological advances are better for all.

Intelligence is the most adaptive of all human characteristics. This includes social intelligence and emotional intelligence and ecological intelligence. Critical thinking, clarity of reason and broad scientific understandings of reality are important to our flourishing. Philosophers who advocate rational humanism recognize an implicit social contract in which all people agree to reasonable limits on individual liberties in order to help ensure greater well-being and mutual security. This is an aspect of community ethics that does not rely on religious authority, doctrinal revelation, God-defined morality, or any other alleged certainty that fancies itself being impervious to debate.

Rational humanism is a philosophical perspective that encourages us to be open-minded to learning about the natural world and our true place within it. It is philosophy that provides us with a natural basis for morality, and for making effective efforts to improve the living conditions and prospects of our kind. Lady Philosophy, console us -- and come to our aid!

"Courage stands halfway between cowardice and rashness, one of which is a lack, the other an excess of courage."

--- The Greek historian Plutarch, in the first century CE

The very future of hope and well-being lies in broad-mindedness, intelligent foresight, reasonable risk-taking and wise planning. The need for clarity of understanding, together with honesty, is crucial for achieving truer justice, mutual security, a greater modicum of social equity, and peaceful resolutions of conflicts. We need to act with greater fiscal responsibility, and make our collective activities much more likely to be indefinitely sustainable. We need the courage to stand up for smarter social policies that are more empathetic and more responsible to others - especially including our descendants. Ecological sanity necessarily includes a commitment to caring about future generations, so it is the ultimate moral imperative.

This is not mere moralizing. Surely, socially and ecologically intelligent precautionary principles are vital to our collective survival and prospering. The proposed Bill of Rights for Future Generations in this manifesto should be ratified in nations worldwide because it would provide overarching guidance toward aggregate actions that are more sustainable. It is not just a value judgment to say that we should more thoroughly understand and honor the underlying principles of sustainable existence.

Our growing appreciation of the extent to which we are interconnected with other human beings, and with the wider web of life on Earth, is creating a more ecological sense of self. This "greener" sense of self is one we need to embrace for its adaptive value. This wider construct of self-identity and self-interest is one that is smart and adaptive, not merely noble, altruistic or virtuous.

A wider and deeper notion of our "selves" naturally includes concerns for the greater good and our common interest in protecting natural ecosystems. The integration of such awareness into all of our worldviews actually serves to protect the self of each and every one of us.

"The crisis that threatens our planet, whether seen from its military, ecological or social aspect, derives from a dysfunctional and pathological notion of the self. It derives from a mistake about our place in the order of things. It is a delusion that the self is so separate and fragile that we must delineate and defend its boundaries, that it is so small and so needy that we must endlessly acquire and endlessly consume, and that it is so aloof that as individuals, corporations, nation-states or species, we can be immune to what we do to other beings."

--- Joanna Macy, *The Greening of the Self*

Concrete Examples of the Need for Precautionary Principles

A political cartoon in the Washington Post in March 2011 showed thick smoke billowing from a nuclear power plant in Japan and oil spilling from a BP oil rig, and the housing market symbolically melting down in flames, and the atmosphere being polluted with particulate emissions spewing from industrial smokestacks. A building that represents the economy lies in ruins, and there is a billboard above Wall Street that reads: "For bigger profits, take bigger risks." One guy on Wall Street is looking up at the sign and saying to another behind a desk, "MAYBE IT'S TIME WE TOOK THAT DOWN."

The time has come today to more sensibly restrict the amount of risk-leveraging that bankers and speculators are allowed to take. Risk takers must be required to bear the costs of risks gone wrong, instead of having the government bail them out with taxpayer money, or even worse using borrowed money and mortgaging the future for the sins of the bad design and inadequate accountability of our corrupt econopolitical system.

Radical risk-taking is a socially unacceptable form of shortsighted folly. Professor Robert Reich wrote the following wise commentary in an insightful Sunday opinion article titled, "Safety on the Cheap Invites Disaster":

"No company can be expected to build a nuclear reactor, an oil well, a coal mine, or anything else that's 100 percent safe under all circumstances. The costs would be prohibitive. It's unreasonable to expect big corporations to totally guard against small chances of every potential accident. Inevitably, there's a trade-off. Reasonable precaution means spending as much on safety as the probability of a particular disaster occurring, multiplied by its likely harm to human beings and the environment if it does occur.

Here's the problem: Profit-making corporations have every incentive to underestimate these probabilities and lowball the likely harms. This is why it is so necessary to have such things as government regulators, and why regulators need enough resources to enforce the regulations.

And it's why recent proposals in Congress to cut the budgets of agencies charged with protecting public safety are so wrong-headed. One such proposal would reduce funding for the tsunami warning system. Another would ban the Environmental Protection Agency from regulating air pollution, including cancer-causing contaminants.

It's also why regulators have to be independent of the industries they regulate. ... And finally, the tendency of corporations to understate the probabilities of public harms requires that limits be placed on corporate political power. The public cannot be adequately protected as long as big corporations -- GE, BP, Halliburton, Massey and all others -- are allowed to bribe legislators with campaign donations and boondoggles."

This brilliantly coherent explanation should help us formulate better solutions to challenges. But here is the catch. Big conflicts of interest exist between private activities and the greater public good, now and in the long run, so resistance is powerful to the best common good solutions. This reality makes it imperative for us to collectively commit to championing more reasonable precautionary principles. Due to the unfairly distorting influence of Big Money in our political duopoly system, we have, as a nation, chosen to allow the "polluter pays principle" to be circumvented. Those who are responsible for pollution are thus able to foist some costs of their activities onto governments and people, and thus onto taxpayers and society at large. This is a violation of the cost internalizing Principle 16 of the Rio Declaration on Environment and Development, which concerns real costs related to pollution. We need to restructure the rules in our country to reinstitute polluter pays principles!

II. Ecological Precautionary Principles

"In all things of nature, there is something of the marvelous."

--- Aristotle

The need to respect ecological precautionary principles is the most important idea in this manifesto. Such principles are inextricably influenced by social, economic, financial and political activities, so precautionary principles in these arenas are also important.

An ecological precautionary principle was enunciated in Principle 15 of the 1992 Rio Declaration on Environment and Development. This visionary principle states: "In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, a lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation."

This reasonable "no regrets" approach to environmental policy-making sensibly takes into account the likely impacts on people in future generations of our resource-depleting and habitat-damaging activities. An ounce of prevention is worth a pound of cure! This approach helps us to focus on actions that should be undertaken to be consistent with values of sensibly protecting ecosystems, and of reasonably sharing prosperity, and of other greater good goals. We are collectively engaged in *Years of Living Dangerously*. So NOW is the time to begin to moderate these risks. David Roberts provides a deeper context for this challenge when he observes: "Humanity has never before had to grapple with a problem that measures itself in centuries, and threatens our very existence, and requires global cooperation to overcome."

Edward O. Wilson, writing about Professor Jeffrey Sachs' valuable book, *Common Wealth: Economics for a Crowded Planet*, notes: "The world has changed radically in the past several decades; it is going to change more, and faster and faster. In spite of all we have accomplished through science and technology -- indeed because of it -- we will soon run out of margin. Now is the time to grasp exactly what is happening. The evidence is compelling: we need to redesign our social and economic policies before we wreck the planet."

Wilson goes on to say that we have a narrow window of opportunity today to choose sustainable avenues into the future. If we fail to grasp these opportunities and continue to create intense conflicts and crises, we will catastrophically deplete the cornucopia of resources upon which we rely, and cause devastating damages to the ecosystems that sustain us.

E.O. Wilson compellingly continues: "Almost all of the crises that afflict the world economy are ultimately environmental in origin: climatic change, pollution, water shortage, defaunation, decline of arable soil, depletion of marine fisheries, tightening of petroleum sources, persistent pockets of severe poverty, the threat of pandemics, and a dangerous disparity of resource appropriation within and between nations. Unfortunately, while decision makers understand each of these problems to some degree, they typically continue to be addressed as separate issues. Yet the world has little chance to solve any one problem until we understand how all of them are connected through cause and effect. We will be wise to look upon ourselves as a species and devise more realistic and pragmatic approaches to all the problems we face as a whole. ... We all operate by a worldview distorted by the residues of hereditary human nature. We exist in a bizarre combination of Stone Age emotions, medieval beliefs, and godlike technology."

He also states: "We ought to develop a new kind of self-understanding, self-reflection, and self-imaging. Then we might be able to actually get somewhere together." In other words, we need Big Picture understandings! The ancient Rapanui people of remote Easter Island were known for their monumental iconic inward-looking stone statues. One wonders if either the rulers or common people of the island had any inkling of impending adversities that were to be incurred as crucially-important native forests were decimated and the island's population continued, inexorably, to grow.

Were there no cautionary Rapanui voices? Were they incapable of foreseeing the dire implications of their unsustainable exploitive activities? Was there an equivalent of political bickering, obtuse obstinacy by decision-makers, gamesmanship, deceitful propaganda, and ideological polarization and strife in the face of what should have been an increasingly obvious depletion of resources so vital to their existence? No more wood for boats?

In 2009, Donald Trump joined his three oldest children, Ivanka, Donald Jr. and Eric, in signing a letter printed in the New York Times urging President Obama and world leaders who were headed to international climate negotiations in Copenhagen to act on climate change. The letter stated that, "If we fail to act now, it is scientifically irrefutable that there will be catastrophic and irreversible consequences for humanity and our planet." Now that so much money and power can be gained by aggressively boosting the fossil fuel industry, the Trump family seems to be just fine with causing catastrophic and irreversible consequences for humanity and planet Earth. This is crazy. It is imperative that all of us collectively begin to honor precautionary wisdom, and to toss all of our representatives out of office for betraying farsighted principles.

"I am the Lorax. I speak for the trees! Let them grow!"

--- *The Lorax*, Theodor Seuss Geisel, aka Dr. Seuss

What if, I muse to myself, Henry David Thoreau was right when he declared: "In wildness is the preservation of man?" Deep ecologists note that it is critical for us to protect natural areas so that they will be able to serve as genetic storehouses for future generations. Once our virulent strain of extinction-causing assaults has run its course, all genetic diversity that has been preserved will provide the life forms that survive an opportunity to once again propagate themselves into habitats and ranges that have been disturbed and damaged by our heedless human actions.

Arch-conservative Dick Cheney, a former executive in the oil services industry, bizarrely stated in 2001: "Conservation may be a sign of personal virtue, but it is not a sufficient basis for a sound, comprehensive energy policy." Really? He made this remark to support his recommendation that the U.S. renew construction of nuclear, hydroelectric, oil-fired and coal-fired power plants, and that our nation drill aggressively for oil in sensitive habitats like the Arctic National Wildlife Refuge in Alaska.

Aldo Leopold, the American ecologist, forester and environmentalist who is best known for having written *A Sand County Almanac*, would have strongly disagreed. As he once succinctly stated: "Having to squeeze the last drop of utility out of the land has the same desperate finality as having to chop up the furniture to keep warm."

This idea brings up the vital issue of our collective need for sustainable energy sources to power our activities and civilizations. As these words were first written, nuclear reactors were failing in the wake of the devastating 3/11/11 earthquake and tsunami in Japan, and turmoil was embroiling a dozen Arab nations where rulers have oppressed their peoples by governing in completely undemocratic ways using ruthlessly repressive "security forces" and religious discrimination. Heightened religious conflicts were taking place in which Sunni people were oppressing Shiite people, or being oppressed by them, in dozens of nations around the globe. Muslims and Christians were pitted against each other, seemingly intransigently committed to an epic economic and cultural conflict over the ridiculous issue of whose God is the one-and-only right true absolute one.

Meanwhile, the global population of human beings first exceeded an incomprehensibly needy seven billion people in November 2011, en route to EIGHT BILLION by the year 2024. And people in every nation are trying to figure out how to break the shackles of money-monopolizing wealthy people so that they will be able to gain a fairer modicum of social justice. All these developments are intricately interconnected.

Climate change is an unfolding tragedy, but it is also a crime, according to Nathaniel Rich — "a thing bad people knowingly made worse, for their personal gain. That, I suspect, is one of the many aspects to the climate change battle that posterity will find it hard to believe, and impossible to forgive."

As Martin Luther King once said, We must rapidly begin the shift from a "thing-oriented" society to a "person-oriented" society. When machines and computers, profit motives and property rights are considered more important than people, the giant triplets of racism, materialism, and militarism are incapable of being conquered.

People who own most of the wealth in the world are driven by ego, greed, self-centered righteousness, status-seeking and compulsions to consume conspicuously. As a result of having so much money, they wield distinctly overweening power in every nation around the planet. They persistently use this power to demand and get public policies that allow them maximum privileges to exploit resources AND have a minimum amount of limitations on

their actions. They staunchly oppose requirements that mandate fairer considerations of the greater good, especially when such rules limit their prerogatives and power and profit-maximizing opportunities.

The activities of wealthy people almost always include socially undesirable tactics like the privatization of profits while some costs of production are socialized by being externalized onto the public. This is simply wrong!

While the Biblical Tree of the Knowledge of Good and Evil seems to have gone extinct, it apparently generated a successor species before disappearing, in a majestic Tree of the Awareness of Right and Wrong. Only by gaining a clearer and more ethical understanding of true right and wrong can we find better ways to create fairer, safer and more sustainable societies. The marvelous Tree of Life itself is facing calamitous threats as humanity obtusely prunes away at twigs, branches and even ungodly portions of the trunk itself. And look here -- timber barons are practically salivating at the prospects of prospective profits as they sharpen their saws with the benediction of "conservative" opponents of environmental protections. Thanks a lot, Trump and Zinke.

As Aldo Leopold noted, perhaps having spent time under the broad canopy of the Tree of the Awareness of Right and Wrong: "A thing is right when it tends to preserve the integrity, stability and beauty of the biotic community. It is wrong when it tends otherwise."

Republican Senator Lisa Murkowski of Alaska has long advocated that the U.S. increase oil production in the fragile ecosystems of Alaska. Senator Murkowski expressed the opinion in 2011 that we should deal with rising energy prices by reducing restrictions on oil drilling, and by *cutting* taxes on gasoline. She was just fine with the "Drill, baby, drill" mantra.

Let us clearly understand the current situation. Americans burn about 7 billion barrels of oil each year. This is 25% of the total amount burned worldwide. We use this much despite the fact that we represent less than 5% of the world population. This is profligate use! Total petroleum imports represented about 60% of our annual use in 2011, before hydraulic fracturing of rock formations made the United States more energy independent, and imported supplies are very costly and highly vulnerable to geopolitical disruptions.

Republicans blame the government for restrictions and "shortsightedness", so they recommend that we boost domestic production by reducing regulations and drilling more aggressively for oil in Alaska, and offshore, and elsewhere on public lands within the U.S., and they oppose precautionary measures related to fracking activities. But the writing is clearly on the wall. Ecological precautionary principles tell us that we should reduce carbon emissions in the coming decades to keep global warming from increasing to levels that will cause unacceptably high costs. Disastrously, we are on track to blow past a livable emissions budget for the next 100 years in less than 25 years. From this standpoint, "Drill, baby, drill" is an insane prescription!

The process of fracking is altering our domestic production calculus in the short-term, but it is not changing the fact that our profligate burning of fossil fuels threatens to "double glaze" our providential home planet. We simply must adapt to leaving most reserves of fossil fuels in the ground, and burning them up at a slower rate to protect the prospects of our heirs.

Senator Murkowski emulated Dick Cheney is saying that the U.S. lacks a coherent energy policy. Most people would agree this is true, and in 2017, the situation is rashly worse. Conservatives say that our policies are not coherent mainly because the government restricts production, while liberals feel that the need for conservation and greater efficiency of use is extremely important for future well-being, along with cleaner energy alternatives that are renewable. Liberals further believe that we need to rethink the degree to which we waste fossil fuels in our cities and suburbs, and in agricultural practices, and in unleashed military interventions.

Our dependence on oil is a serious national security concern. It is risky from the following standpoints:

- (1) We import oil from politically volatile countries in the world. This makes our supplies vulnerable to any disruptions or sudden price increases that might occur;
- (2) The enormous cost of importing so much oil is a big financial drain on our economy;
- (3) The costs of maintaining a vast military machine to protect our interests in the Middle East are contributing to record levels of national debt, and this fiscal problem is a serious national security concern in its own right;

(4) We are becoming increasingly vulnerable to oil price shocks and supply interruptions because people in other nations worldwide are also rapidly depleting these critically important resources;

(5) Grave health and environmental damages and threats are resulting from our collective combustion activities. Human beings are spewing many billions of tons of pollutants and carbon dioxide into the atmosphere each year as we profligately burn coal, gasoline, diesel fuel, heating oil, and natural gas. This is contributing to growing health and environmental problems. And the number of polluting oil spills is obscene!

We should give closer consideration to these challenges. To formulate a truly far-sighted national energy policy, we surely should stop giving large subsidies to powerful oil companies every year. These corporations are, after all, making record profits. Shouldn't we try harder to find a way to wean ourselves from this dangerous addiction? Isn't it the moral right thing to do to make greater efforts to conserve resources and use fossil fuels radically more efficiently? Shouldn't we commit to an effort on a dedicated scale like that of the bold Apollo Space Program to develop alternatives to the burning of fossil fuels? The wisdom of precautionary principles resoundingly responds: "YES WE SHOULD!"

The best course of action would be to promote precautionary principles and sensible worldviews, and to spend less time and energy on efforts to rationalize boom-and-bust laissez-faire corporatism. We should dedicate ourselves to preventing Big Business from externalizing costs by socializing them, and begin to act in ways that are more honestly responsible to future generations. Crony capitalist "Disaster Capitalism" is simply proving to be too risky and too destructive. Far-reaching reforms are called for.

In many of our aggregate actions, it is as if we are chopping off the limb of the tree upon which our civilizations are perched. The distant echo of our agents hacking away at the massive biotic trunk of the tree of life is deeply unsettling. We can, and must, figure out new ways of living, and use smarter incentives and disincentives!

It is becoming crystal clear that we should work together with better stewardship to decisively address the existential imperative of protecting the ecological foundations of our well-being, now and in the future. We owe it to our children, and to all our descendants, to leave them a fairer legacy.

Unfortunately, our current collective actions presage a legacy of depleted resources, devastated fisheries, poisoned habitats, decimated old-growth forests, overheating planetary ecosystems and diminished biological diversity -- unless we soon begin to make an overarching commitment to changes in our habits, behaviors and economic and political systems. It is outrageously irresponsible, undisciplined, weak-willed, and self-centered for us to continue borrowing enormous sums of money from people in the future to stimulate these outcomes.

We should manage land, water and mineral resources better to ensure sustainable harvests. This is a more sensible plan than squandering resources in a manner that threatens our future well-being and drives untold numbers of species of plants and animals toward eternal extinction. It is markedly rash for us to collectively fail to protect vital ecosystems. It is crazy for us to fail to make concerted efforts to preserve the stability of the Earth's climate and ecological conditions. Shortsighted actions can have far-reaching consequences. These facts make precautionary principles increasingly important.

We need to implement highly effective incentives and disincentives to cut down on pollution and toxic wastes, and greenhouse gas emissions into the atmosphere. We should revolutionarily redesign our economic and political systems to prevent selfishly short-term-obsessed interest groups from dominating our decision-making and despotically determining our national policies in ways that are contrary to the greater good. These vested interests are powerfully motivated to maintain the entrenched status quo, but we cannot allow them to prevent needed reforms. Sadly, we have embarked on a rash backward trajectory in these regards in 2017.

It came to me in the middle of the night, I thought, as I lay in a sunshine-flooded green meadow near the top of a hillside with an expansive view: *Every person in every country worldwide should be accorded the right to a maximum amount of individual freedoms.* This is true for all people in the United States, and those in China, and all in those Middle Eastern nations where economic, social and political turmoil have erupted into violence and revolution in the dreadful aftermath of the so-called Arab Spring. And within the larger context of these

theoretically unalienable liberties, overarching responsibilities exist. Golden Rule responsibilities and resource conservation responsibilities. Ecological responsibilities and civic responsibilities and community responsibilities.

The U.S. should make a revolutionary commitment to life, liberty and the pursuit of happiness for all Americans, and nations worldwide should make similar commitments to human rights for their peoples. Religious and political freedom should be championed as bedrock principles for all. A greater modicum of fairness of opportunity should be established. Ecological sanity should be defended by choosing to support ecological precautionary principles that help guarantee greater respect for the foundations of our collective well-being.

We do, to an extent, make our destinies by the gods we choose. It is high time we cease worshipping money above all other values. It is important for us to stop giving special privileges to society's elites when that lavish generosity causes excessive public debt and extensive harm and exacerbated insecurities to the majority of people. We should begin to give more respect to our neighbors, our communities, and our descendants.

A true respect for the well-being of humanity, now and in the future, would guide us in more sensible directions. Such greater respect would lead us to pursue wiser priorities. It is foolish to fail to embrace precautionary principles related to environmental protections and emissions of climate-disrupting greenhouse gases. Consider this way of seeing from *Comprehensive Global Perspective: An Illuminating Worldview*: "Fresh ideas should be given greater sway, ones that are more consistent with greater good goals. The progressive Senator Paul Wellstone of Minnesota believed that politics should be about much more than power, money and winning at any cost. He made his convictions clear when he said, "Politics is about the improvement of people's lives. It's about advancing the cause of peace and justice in our country and in the world."

A Digression on Climate Disruptions

An article in the October 2011 issue of *National Geographic* magazine investigated an episode of global warming that took place 56 million years ago at the end of the Paleocene Epoch. A sudden dramatic increase in carbon dioxide in the atmosphere occurred way back then, probably caused by an intense period of volcanic activity associated with the opening up of the North Atlantic Ocean, as Greenland and the North American continent were pushed apart from the continent of Europe along the Mid-Atlantic Ridge rift zone. This impulse of greenhouse gases caused a global warming trend, which in turn thawed frozen methane molecules in polar regions and released them into the atmosphere, radically accelerating the warming trend.

Methane gases have a greenhouse warming effect that is many times more intense per molecule than carbon dioxide. Large deposits of methane hydrate exist today under the Arctic tundra and ocean floors. Such hydrates are stable only in a narrow range of cold temperatures or high pressures, so the warming that is being caused today by our rash burning of enormous volumes of oil, coal and natural gas could trigger a runaway release of methane from the frozen north and the deep seas. This occurrence could parallel the events at the time of the biotic calamity that brought the Paleocene to an end, causing mass species extinctions, so it is instructive to investigate the impacts that this radical warming had on the Earth at the time. Evidence indicates that far-reaching destabilizing impacts occurred back then.

This is a good reason to embrace precautionary principles rather than continuing to burn fossil fuels at nearly the fastest possible rate to power our agricultural and industrial activities and to satisfy our residential and consumer-oriented needs and a military stationed in some 130 countries abroad. Nonetheless, Republican politicians in the House have used a radical legislative tool called the Congressional Review Act to scrap critical protections, "permanently", against dangerous methane pollution from oil and gas drilling on public lands.

Global warming today is disrupting prevailing jet stream wind patterns, and generally altering the global climate. As a result, many regions are experiencing episodes of higher rainfall and flooding, while severe droughts are affecting other areas. Heat waves are killing thousand in India, and wildfires are burning more acres of forest in the U.S. than ever before in recorded history. And the devastating 2017 hurricanes in Texas, Florida and the Caribbean, and in the Carolinas in 2018, lend emphasis to these concerns.

As extreme weather events strike places worldwide, a growing consensus of knowledgeable climate experts warn us about dangers related to climate-disrupting activities. Economists, in turn, analyze the range of damages that can

be expected because of unfolding changes in climatic conditions, and they calculate a range of costs that will be associated with coping with these changes. They compare these costs to a range of spending that would help prevent or mitigate climate changes and sea level rises, and they assess the impacts these outcomes will have on nations worldwide. Such analyses are swayed by assumptions made, and by political considerations, but we should think clearly and assess honestly, and take into account the broadest possible Big Picture understandings. Trillions of dollars are at stake, along with almost unfathomably risky unintended consequences.

These analyses involve gaping uncertainties. But we are in a Bet Situation: we are inextricably "in the game", and we must make decisions about what courses of action to pursue. It would be wisest to make smart decisions. The best plan would be to develop scenarios of likely costs and impacts that are most reasonable, based on the most probable assumptions, and to then find the best balance between the costs of potential damages and the costs of sustained up-front spending on preventing or mitigating the changes, and on adapting to them. We need to find a good Goldilocks scenario, the 'just right' level of precautionary actions!

Conservatives in the U.S. are in the thrall of the laissez-faire propaganda of big corporations and the radical right, so they deny correlations between human activities and a myriad of weather-related disasters. They tend to pretend that spewing tens of billions of tons of greenhouse gases into the atmosphere every year is having no effect. They deny or ignore the fact that rapid deforestation in tropical regions is exacerbating the build-up of carbon dioxide in the atmosphere. They deny that uncontrolled activities are causing, and will cause, huge future liabilities. Denial, however, does not diminish the likelihood of adverse outcomes. We really must be more honest and make assessments that are the most accurate possible, using science, not fiction. Then we should proceed accordingly, heeding the understandings of hundreds of scientific experts who are contributing to greater good goals by working on the Intergovernmental Panel on Climate Change.

III. Fiscal Precautionary Principles

Prudent national policies should be formulated that leave our country in a sound fiscal position so that we can afford the costs related to economic setbacks, natural disasters or other unforeseen adverse developments. Japan, for instance, has the third largest economy in the world, but it has run its economy into a danger zone by allowing its national debt to reach more than 200% of its annual economic output. This is the highest level of debt in the world, according to the CIA World Factbook. The percentage of Japan's debt to its GDP exceeds that of Greece, Italy, Iceland, Ireland or Portugal, which are all countries that suffered severe economic crises and dangerous national debt problems in the long aftermath of the recession of late 2008.

As a consequence, Japan was in a poor position to finance its recovery and reconstruction in the wake of the devastating earthquake and tsunami that struck on 3/11/11. The Japanese have been foolhardy to have allowed their fiscal situation to deteriorate to such an extent. The USA, inebriated on its own addiction to deficit spending, is also avoiding making difficult decisions between competing interests. We do this by taking the expedient route of borrowing money and fleecing future generations to preserve entitlements and fight wars and continuing to give high-income people historically low tax rates.

The importance of a Rainy Day Fund concept cannot be overstated. Instead of adopting a common sense precautionary fiscal approach like this, we are stimulating the economy, artificially maximizing profits, and injudiciously squandering money and resources. By spending profligately and borrowing heavily, we undermine our ability to cope with adversities. This is directly contrary to the goal of creating a rainy day fund. It makes our economy less flexible and less resilient. This course of action is incautious, imprudent, careless, heedless, reckless and improvident. It is, in essence, insane. We are tempting Providence!

Nations worldwide are being forced to attempt to reduce their unsustainably high debt loads at the same time that challenging economic conditions are buffeting many national economies. Austerity policies are a poor response, and so are continued indulgences in the expediency of huge quantities of deficit spending. In the competition to decide what programs to save or eliminate as a result, we should not lose sight of the difference between productive uses of debt and non-productive uses of debt. Productive debt, such as investments in public education, vital infrastructure, worker productivity, protections of public lands, and research and innovation, can actually serve to improve future prospects, rather than diminish them.

Competing interest groups argue about what entitlements we should have, and what social and infrastructure investments should be made. We should make smart and fair assessments, and then boldly act upon them.

The only sensible economic system in the long term is one that is NOT reliant on Ponzi-like schemes predicated on an ever-growing human population and national debt. There is no hope of achieving sustainable activities and using limited resources wisely unless we recognize the need to make a dramatic shift in our aggregate activities from nonrenewable resources to more renewable resources. Smart incentives should be used to encourage people to live within their means. Governments should provide only enough services and benefits as citizens are collectively willing to pay for, in fairly representative societies. And we must stop pandering primarily to rich people, as Republicans are doing with their proposed federal budget in May 2017 and Amazing Disgrace tax plan in December 2017, both of which can fairly be characterized as "a war against the poor".

Budgets should be established that are more balanced through a revised system of more steeply graduated taxes on income, capital gains and inheritances. And we should enact new laws that honor precautionary principles in fiscal matters so that we will position ourselves better for the daunting challenges that will be encountered as the twenty-first century unfolds!

IV. Social Precautionary Principles

In the lawless Wild West of yesteryear, "six-shooter aggression" and reactive vigilante justice ruled the day. Mark Twain attested to this characterization in *Roughing It*. A stagecoach in which he was riding in Nevada was held up at gunpoint, and the bandits ordered, STAND AND DELIVER! You'd better be sure he complied, fearing for his life. In those days, conglomerate trusts back East were just beginning to seriously abuse power, and the wealthy were just beginning to stretch their peacock wings and get the Gilded Age partying really under way.

Today, we should make sure our rules and laws are designed to create a safer and fairer system of opportunity and justice. Laws are unfortunately being routinely violated by self-interested individuals and entities so that they can make bigger profits or gain other benefits and advantages.

In the Earth Manifesto dissertation *Principal Reasons a Bill of Rights for Future Generations is Needed*, an exhaustive examination is made of the reasons that Social Precautionary Principles are necessary for a fairer and more secure future. The insights in that treatise are included herein by this reference.

A peaceful revolution is needed here in the U.S. to alter national priorities so that people and the environment are better protected. Costs associated with the military-industrial complex should be reduced. We should begin to honestly and fairly deal with the overarching challenges we face by preventing wealthy people and giant corporations from abusing their outsized power to pollute the commons, exploit workers, export jobs abroad, externalize costs, contribute to the creation of an irresponsibly high and corruptly incurred national debt, and gain advantages at the expense of the vast majority of the people.

A revolution of the mind is what we really need. Perhaps it will come in the form of a providential spontaneous evolution of our worldviews, and of our perceptual awareness. Let us allow the feminine sensibilities within each one of us to become more ascendant. That may be an excellent way to create significantly fairer and more successful societies. Perhaps it is time to return to more holistic ways of seeing that pertained when Mother Earth goddesses were revered and Nature was more highly respected.

Dr. Leonard Shlain would surely have posited that a better balance between our intuitive right brains and our more analytical left brains would be good for our overall well-being. He wrote provocatively and at length about the desirability of a better balance between our feminine and masculine selves, and about the advantages of more respect for women's rights in various civilizations throughout history. See my essay *A Feminine Vision of an Achievable Better World - Anima Should Reign* for expansive perspective.

In any case, the pendulum swings. Since 1980 it has been swinging in the wrong direction, when considered from the standpoint of the whole of society. The pendulum is swinging from a sensible modicum of fairness to more unfairness, and from political centrism to a more right-wing laissez-faire "voodoo economics" extremism. This is not evolutionarily advantageous!

Walking up the steps to the Supreme Court, an observer sees the words etched into the building "Equal Justice Under Law." That is a great principle! But some of the current members of the Supreme Court act as though this equal justice is for corporate entities rather than the people, and certainly not for women when they give preferential rights to egg/sperm zygotes and embryos and incipient fetuses over women.

The great Supreme Court Justice Ruth Bader Ginsberg -- "the notorious RBG -- memorably states: "The decision whether or not to bear a child is central to a woman's life, to her well-being and dignity. It is a decision she must make for herself. When Government controls that decision for her, she is being treated as less than a fully adult human responsible for her own choices."

Thomas Paine wrote that he knew it is difficult to get over local or long standing prejudices, yet when the need becomes pronounced enough for us to feel obligated to suffer to examine these biases and preconceived notions, we may begin to see a clearer way forward. We can no longer afford to be a house divided against itself, and we can no longer remain fettered by obstinate prejudices.

V. Financial Precautionary Principles

Investment advisors sensibly recommend that the best investment plan in the long run is to diversify the assets in a portfolio between various asset classes. Putting all of one's eggs in a single basket is an approach that is imprudent. Since our government indulgently engages in monetary and fiscal policies that are inflationary, the purchasing power of savings is slowly being undermined. This is why a dollar today is worth less than 32 cents relative to the value of a dollar in 1980. The effect of this devaluation of money over time is to cause savings to lose value.

Investors therefore seek higher returns by putting money in riskier investments. Government incentives for home ownership (mortgage interest deductions, low interest rates, tax-free allowances of capital gains on home sales, etc.) made real estate a superior investment for many years. But these national policies led to people using home equity increases to spend profligately by borrowing against appreciating real estate values. This was a strong stimulus to consumer demand, and may have seemed to be a peachy condition while the bubble was inflating. But it led to financial disaster when the bubble burst and a prolonged period of depressed home prices began, and millions of Americans lost their homes to wrenching foreclosures.

In June 2011, homeowners had only 38% equity in their homes, down from 61% a decade earlier. This was near the lowest point since World War II. The unintended consequences of real estate bubble economics could have been foreseen, and should now be better understood. Rashly misguided public and Federal Reserve policies have contributed to making this situation undesirably volatile.

Inflationary Fed policies have at times made gold and other commodities seemingly good investments, but the boom-and-bust nature of economic policies makes prices unstable and therefore risky. Since these words were first written, gold fell in value in 2013 more than it has in any year in decades. Government and corporate bonds are potentially volatile because they are strongly influenced by interest rate fluctuations. Over the long run, stocks have proven to yield the highest average return of all investments in major asset classes. This is because stocks allow investors to gain a share of profits made by corporations in the international economy, and God knows that nations worldwide stumble all over themselves to give giant corporations much of what they want to satisfy their narrow purposes. But equities are also highly volatile due to extensive uncertainties, market manipulations, competitive developments, emerging trends, excessive debt, geostrategic conflicts and cyclical spells of "irrational exuberance" and accompanying "wall of worry" fears.

In general, when some asset classes are gaining, others are losing. The precautionary idea behind a diversified portfolio is basically to hedge one's bets, and to own some things that will go up in value while others are going down. The goal is to keep ahead of inflation while not risking steep plunges in asset values due to overweight positions in any one speculative risk that goes bust.

Speculators are aware that there are more opportunities to make big profits during times when markets are volatile than when prices are steady, especially with puts and calls and other derivatives trading. But there are also much bigger chances of suffering disastrous losses. Long-term investors prefer more stable markets for a

variety of good reasons. Let's heed this lesson and demand that the Federal Reserve gives more serious consideration to making sure markets are healthy and stable. The Fed should emphasize fiscal stability more than economic stimulus.

VI. Military Precautionary Principles

Our leaders need to recognize the overarching necessity to pursue more sound economic and military policies than our current stimulative deficit-spending system of "military Keynesianism". Military Keynesianism is the term used to describe government economic policies that stimulate the economy by spending huge amounts of borrowed money on weapons, munitions, military personnel and military operations abroad. In a pathetic irony, this strategy has become a tactic that is itself creating increasingly grave threats to our national security, especially because of excessive debt. To make our nation more secure, LESS spending on the military is called for, not increased spending. It's stupid to make our nation more vulnerable to financial cataclysms by indulging in wasteful and poorly controlled military spending.

Defense spending has practically become a sacred cow on the American political scene. It has been subjected to wholly inadequate few cost controls, oversight and accountability. It has served as a cover for wasteful spending, bureaucracy, unethical profiteering and many types of misallocations of resources. Military stimulus spending goes to all 50 states, making politicians everywhere enthusiastic supporters of high levels of "defense spending", with the chorus intoning the mantra, "Jobs, jobs, jobs."

Military Keynesianism also makes it easier for our leaders to aggressively intervene in the affairs of other countries, rendering us less safe by goading blowback opposition and creating increasing numbers of people who regard us as enemies, war-mongers, imperialists, apostates, state-sponsored terrorists or evil oppressors.

"In my opinion, any future defense secretary who advises the president to again send a big American land army into Asia, the Middle East, or Africa should 'have his head examined', as General MacArthur so delicately put it."

--- Defense Secretary Robert Gates, February 2011

The U.S. today spends much more money on its military than any other country in the world. This is bizarre, because we are getting poor value for our money. The "opportunity costs" of devoting so many resources to misguided goals are extensive, and this makes Military Keynesian policies counterproductive. Chalmers Johnson once made a poignant point: "Such expenditures are not only morally obscene, they are fiscally unsustainable." This is a dangerous state of affairs, indeed!

Chalmers Johnson also noted that, despite the fact that the Cold War had ended years earlier, "U.S. reliance on military Keynesianism has, if anything, been ratcheted up, thanks to the massive vested interests that have become entrenched around the military establishment. Over time, a commitment to both guns and butter has proven an unstable configuration. Military industries crowd out the civilian economy and lead to severe economic weaknesses. Devotion to military Keynesianism is a form of slow economic suicide."

Wars require great material sacrifices, as well as extensively stressful and disturbing physical and emotional sacrifices by those actually who do the fighting. Wars also necessitate extremely high monetary and social costs by those who must pay for the expensive conflicts. In this context, there is a cynical shortsightedness and shrewdness to the unethical strategy that facilitates the foisting of these costs and sacrifices upon those with little power, and those in the future with no voice in matters.

The citizens of Arab nations are making it radically clear that people cannot trust their political leaders to make fair-minded reforms. Leaders everywhere are simply too inextricably vested in the status quo. Likewise, lobbyists for amoral corporations cannot be trusted to do the right thing, because their goals are very narrowly focused. We need to shift the balance of power to democratic fairness and actions that are more distinctly responsible to future generations. Public decision-making must be guided by sensible overarching principles.

For a more comprehensive perspective on issues of war and peace, see the online Earth Manifesto dissertation, *Reflections on War -- and Peace! We all figuratively live <<Home, home on the range, Where the deer and antelope play; Where seldom is heard a discouraging word, And the skies are not cloudy all day>>*, as the unofficial anthem of the American West goes. While this State Song of Kansas epitomizes an indomitable American spirit and

encapsulates a positive sunny attitude, there are strangers on adjacent properties, some of them our agents, who are clear-cutting the forests, drilling for oil, belching acrid-smelling coal smoke, polluting streams, spewing toxic and climate-altering emissions into the atmosphere, and squandering the common wealth, as if there will be no tomorrow.

Yet, naturally, there will be a tomorrow. And it will be a tomorrow in which people's well-being is dependent upon decisions we are collectively making today. We ignore this fact at our own extreme peril, and at a terrible price to our children, and theirs. Let the sun shine in! In an even larger collective sense, a sense of purpose for us all together must of necessity involve responsibility for the rights and prerogatives of future generations. Let us all commit ourselves to responsibly participating in helping make a global team effort to make the world a better place. And, in this case, think of the slyly witty definition: a team effort is many people doing what I say. Ha!

VII. Political Precautionary Principles

Will and Ariel Durant wrote in *The Lessons of History* that the concentration of wealth in societies occasionally reaches a critical point where either sensible legislative redistributions of wealth are enacted, like progressive tax reforms, or else increased violence and possibly even destructive revolutions take place that generally destroy wealth rather than redistributing it.

It would be safer for all Americans if we were to create a fairer and more just society, rather than one that is increasingly unfair due to growing disparities in income and wealth between the top 1% of people and all others. To make our nation safer, we must reform our system of taxation and money in politics sometime soon! The extremely partisan and wrongheaded Trump Folly tax plan that Republicans are trying to ram through into law in December 2017 is the antithesis of this sensible direction.

Only those who are repentant for egregious sins are deserving of the amazing grace of forgiveness. By deviously designing a tax bill that makes winners of a narrow minority and relative losers of a vast majority, scheming Republican politicians are trying to further "divide the blue states from the red, the Democrats from the Republicans. It is evil in the extreme", declared California Governor Jerry Brown.

Fairly focused political reform is needed because of the extraordinary economic and demographic changes that have taken place in recent decades. Consider the fact that the size of our early human clans was probably less than 30 people, on average, while today our social groups consist of entire societies of millions of people. Remarkable urbanization trends have occurred in the past century in the United States, as reflected in statistics that show only 40% of Americans lived in urban areas in the year 1900, and now more than 80% of Americans live in cities and metropolitan areas and suburbs.

With such significant changes, the need for social cohesion and lower levels of aggression and violence between groups has increased dramatically. The social danger associated with allowing radical increases in inequalities of income, wealth and political influence is becoming more pronounced as increasing inequalities of opportunity and social mobility effectively make everyone less secure. Extreme insecurity often tends to make people engage in uncivilized atavistic behaviors, and this creates increased dispositions toward crime, violence and terrorism. Such actions are maladaptive for society as a whole.

The privileged already live in gated communities in the U.S. and we have strong police and military forces. If we continue to let privileged people increase their advantages while all others become more insecure, the privileged will jealously demand more fortress-like protections, harsher laws and more authoritarian rule. Revolutionary discord is brewing, and will get worse if we are unable to collaborate together to reduce the inequality and insecurity of the vast majority of the people. A budgetary war on the poor is a very bad idea in these regards.

The simple fact of the matter is that "everyone does better when everyone does better". Public policies should be targeted to ensure that the maximum numbers of people do better, not just the few who already monopolize a large part of the wealth. I strongly believe that the most important political reforms, to start with, would be to stop giving corporations too much influence. We should not give them the legal rights of personhood, and we should act to seriously limit the amount of money spent by wealthy people and corporate entities in our elections and in lobbying our representatives.

We would be wise to recall Martin Luther King Jr.'s words: "Ultimately a genuine leader is not a searcher of consensus, but a molder of consensus." We as a nation need to choose to undergo a new and radical revolution of values. We should begin a rapid shift from a materialistic "thing-oriented" society to a "person-oriented" society. The creature comforts of conspicuous consumption have a seductive allure that is an impulse toward resource-wasting consumerism and shallow materialism. A better sense of balance is needed!

People, rather than money and property and profits, should be guaranteed a greater importance of priority. The lion's share of benefits in our societies must be more fairly shared. Racism, wasteful materialism, and aggressive militarism must be emasculated.

What could go wrong if we ignore growth constraints and continue to allow heedless exploitation and depletion of resources? What could go wrong if we continue to let our advertising-stimulated "needs" and selfish impulses wreak terrible damages upon the natural world through a ferocious and poorly controlled assault against entire ecosystems and the best long-term interests of millions of species of life, including our own?

Martin Luther King, Jr. once provocatively stated "True compassion is more than flinging a coin to a beggar. It comes to see that an edifice which produces beggars needs restructuring." Let's just do it, and do it fairly!

The "filthy rich" are betraying all other Americans by abusing the influence of their money to corrupt our national decision making, drive up the national debt, greedily grab excessive benefits for themselves, impose austerity measures and hardships on poor and vulnerable people, and discriminate against women in pay while depriving them of natural rights to make decisions regarding their reproductive choices. The hubris of these scheming wealthy folks is becoming a danger to everyone. Their eagerness to fool people into supporting a backward agenda in order to concentrate wealth ever more narrowly in the hands of the few is a threat to democratic fair-mindedness, social cohesion, ethical action, environmental sanity and sustainable existence.

Republican politicians egregiously pander to these wealthy people to get power and benefits for themselves, effectively robbing from the poor to give to the rich. They get away with these schemes by deviously pushing propaganda and emotionally manipulative deceptions that convince red state supporters that they care about them, even though they are being merciless in their greed, ambition, cruelty and anti-egalitarian agenda.

Almost 700 years ago, in the year 1339, an Italian painter named Ambragio Lorenzetti finished a series of frescos whose message resonates with us today as Donald Trump attacks the values that define America. Lorenzetti's "Allegory of Good and Bad Government" is a reminder that good government is characterized by Justice, Concord, Peace and Wisdom while bad government is animated by Division, Avarice, Fury, Vainglory and Tyranny. When good government reigns, things are much better for the citizenry, while in extreme contrast, when bad government plagues the realm and despotic leaders rule, they usurp the power of the people and the citizens suffer the consequences.

Truly,

Dr. Tiffany B. Twain

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