

Values, Myths, Beliefs, Attitudes and Behaviour Contributing to the Planet's Overshoot *Predicament*

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The WHAT of the *Predicament*

- We humans are laying waste to the planet; in so doing we are destroying the sustainability of the ecosphere and possibly the survival of *Homo sapiens*.
- We are consuming renewable resources (water, forests and fisheries) faster than they can be renewed.
- We are destroying the agricultural capability of the planet by converting farm land to non productive use.
- We are consuming non-renewable resources, particularly oil and natural gas, at a prodigious rate to the point where, due to field exhaustion, the growing demand will exceed production.
- Indirectly we are destroying species at rates far in excess of natural causes.
- And, we are creating wastes faster than they can be either absorbed or recycled by the ecosphere.

The Direct Cause of the *Predicament*

The Direct Cause of this *Predicament* is that there is more HUMAN ACTIVITY (which is increasing rapidly) than the planet can sustain. There are just too many HUMANS and too much ACTIVITY per human. ENERGY CONSUMPTION is a good proxy for the activity dimension. Thus, all other efforts to achieve sustainability and/or to improve the "lot" of humankind may make some immediate progress, but, in the long term, will be futile unless we can **slow down and reduce the world's POPULATION and the ENERGY CONSUMPTION PER CAPITA to levels that the ecosphere can tolerate.**

The Indirect Cause, the WHY of the *Predicament*

WHY have we got into the mess that we humans have created on this earth? **WHY**, with supposedly the best will in the world, dedicated to achieving a "better life",

have we managed to create almost precisely what we would wish to avoid; that is, if we had thought about it? As the *Predicament* hasn't been the result of non-human natural forces, and it hasn't come about due to deliberate thought-out human actions, a credible explanation for its creation might lie in the combination of the values, myths, beliefs, attitudes and behaviour (the *Traits*) followed by western industrialized societies and which are spreading world-wide.

Described below are some observations of those *Traits* that may have contributed to the creation of the world predicament. These observations arise from observing, in the context of the *Predicament*, what has happened to the planet since western man started to burn fossil fuels for energy generation purposes, the almost simultaneous scientific and technological knowledge explosion, along with development of the printing press.

Many of the of *Traits* have produced very beneficial effects in the **short term**, having contributed to the standard of living and the way of life that is enjoyed in western industrialized societies and is spreading worldwide. However, in the global **long term** context many of these traits have had a completely perverse effect and are destroying the ability of the planet to sustain human well-being and the high standard of living achieved in industrial societies. It is therefore necessary when reviewing these observations to constantly assess whether or not they have contributed, or are now contributing, to the deteriorating issues of the *Predicament*.

Observations

Political Correctness & Taboos

When discussing complex issues an attitude exists that it is 'politically incorrect' to use clear, simple and direct language, for to do so might be seen as being offensive, particularly to religions and/or minorities that may be involved with the issue. Thus, the discussion of the real issue is avoided by circumlocution, focussing attention on the secondary or indirect aspects, or use is made of euphemisms and metaphorical description rather than explicit expression. But, when addressing complex issues, such as those that contribute to the *Predicament*, clarity of expression is of paramount importance while exploring and analysing the issue, considering policy options and in formulating and implementing action to redress the issue. By avoiding clear discussion of those aspects that might be seen as offensive and 'politically incorrect', the resulting supposedly corrective action may do nothing but salve the conscience of those responsible for dealing with the issue.

Another somewhat similar attitude are the taboos on open and thorough discussion of matters that may be seen as impolite, vulgar, or demeaning, particularly when the issue in some way concerns sex. Again, clear, simple and direct language is essential when discussing, analysing and arriving at policies for redressing an issue that may be considered taboo. If policies are not expressed explicitly they probably will not be effective.

Rights & Responsibilities

For the past two thousand years, at least in Christendom, there has been an unremitting drive to establish and enlarge the 'rights' of the individual. The attitude has developed that such individual 'rights' cannot be denied and that it is the 'responsibility' of the collective community to ensure that the 'rights' of the individual are respected. Forgotten is that the individual does not have any inherent 'rights' other than those that come from the natural functions of being one of the animals on this planet. With that exception, the only 'rights' that the individual has are those that are given to the individual by the collective, and for which the collective has taken the 'responsibility' to protect those 'rights' that have been vested in the individual.

In the fight for the 'rights' of the individual and the 'responsibility' of the collective for protecting those 'rights', an attitude has developed to ignore or forget that the collective also has 'rights' and that the individual has 'responsibilities' to the collective not to violate the 'rights' of the collective, both those explicitly expressed in laws and those implicitly accepted as the norm of a civilized society. Many laws of a democratic society ascribe to the collective the 'right' to limit the freedom of action of the individual and to impose upon the individual the 'responsibility' to conduct itself in the interests of the collective.

In the ultimate, the 'rights' of the individual must give way to the 'rights' of the collective. Otherwise, there will be no protection for either the individual or the collective as the 'rights' of the individual are meaningless without there being a 'responsible' collective to protect those 'rights'. As an illustration, at this moment democracies are struggling with the conflict between the 'right' of the collective to protect itself from terrorists while simultaneously maintaining the 'rights' of terrorists, and/or 'perceived' terrorists, as individuals.

Parenthetically: Studies have shown that as the size of a rat colony becomes over crowded the collective behaviour changes from independence of the individual to interdependence for the collective. That is,

when the population of a species is small, the survival of the species depends on the survival of the individual, whereas when the species population is large and crowded the survival of the species depends on the survival of the collective.

The approach that China has taken with its 'one child per family' policy to redress its perceived over-population problem highlights some aspects of the *Traits*. The autocratic government of China has decided that individuals do not have the right to reproduce as they may wish but must give way to the right of the collective to avoid possible societal collapse due to over-population. That policy, including forced abortion and sterilization, opts for **short term** pain in order to achieve **long term** gain by obviating possible disaster.

Throughout western democracies there generally has been revulsion at China's implementation of its one-child policy. But those who have that reaction also should be prepared to answer these two questions.

- What policy would they implement if they held a position of authority in an autocratic government of a country that perceived that its over-population was a threat to the country's stability and future well-being?
- What would be their policy if they were the leader of a government, or of a major political party, in a highly religious democratic country with constitutional 'rights and freedoms', and they perceived that their country was gradually being overwhelmed by its inability to provide for the well-being of its citizens due to a rapid increase in the country's population?

While the 'rights' of the individual have been extensively enlarged in western democratic societies, unfortunately under repressive regimes, whether based on political ideology or on religious doctrine, the 'rights' of the individual are essentially non-existent, or those few that exist, are not effectively protected by the regime. Fully functioning democracies therefore have a moral responsibility to

continually press for the establishment and the protection of the 'rights' of the individual.

The Immediate versus the Future

The combination of our reptilian brain and the evolution of our cortical brain has resulted in humankind being much more interested in immediate effects rather than those of the future, in the **short term** rather than the **long term**. Our natural drive is for gratification now without thinking about potential disagreeable future effects. Democracy caters to responding to the immediate interests of the electorate rather than to the future public well-being.

Examples abound of humans choosing **short term** gratification rather than **long term** well being:

- by consuming inviting types and quantities of foods, beverages, drugs, etc., known to be unhealthy without considering that these can lead to obesity, diabetes, cancer, heart problems and other illnesses.
- by being attracted to the immediate thrill in extreme sport and other dangerous activities without considering the potential for bodily harm and future incapacity.
- of "Buy now, Pay later" as a norm for personal finances, rather than "Save for a Rainy Day".
- of thoughtless copulation in response to the reptilian brain's drive to reproduce, augmented by the expected reward of an orgasmic sensation, thus giving rise to unintended offspring, the heterosexual HIV/AIDS epidemic, and the world population explosion.

Humans seem driven to alleviating suffering now, even if relief today may exacerbate the cause of such suffering the next time it may occur. This subject will be discussed further during a review of the relief from famine and the southern Africa HIV/AIDS program.

Election promises aimed at the short term lay the ground for subsequent political action to mollify the electorate immediately rather than provide the leadership for the electorate to accept some hardship now in order to achieve greater public benefit later. Then there is the drive for reelection that inhibits politicians from supporting issues that may be

necessary for the long term well-being of the electorate but which will not attract immediate support of the electorate.

The political propensity to respond to the short rather than the long term is a major factor in the creation and continuing exacerbation of the *Predicament*. But more importantly, this same political propensity for the short rather than the long term is a tremendous barrier to the redressment of the *Predicament*. There is a great deal of truth to the comments: "The future doesn't vote!" or, "What has the future done for me?"

Constitutional 'rights and freedoms' also present a barrier to redressing the *Predicament* as to do so may require rescinding or restricting some 'right' or 'freedom'. A case in point is the current problem in democracies of trying to maintain existing 'rights and freedoms' of individuals while simultaneously trying to control those whose conduct suggests that they are, or may be, aiding and abetting terrorists.

Parenthetically, the emphasis on the rights of the individual, combined with the propensity for short term gratification, creates the perverse situation, at least in Canada, where the right of the individual to choose to live dangerously and/or irresponsibly may lead to the collective becoming responsible to provide the subsequent medical services and education that may be required for the individual and/or the unintended offspring.

Self Deception or Denial

Evolution has selected for the ability to deceive and to detect deception, in defiance of that proverb "cheaters never prosper". But the ultimate in practising deception is when the individual deceives its self (not itself). The propensity to 'self deception' is a human behaviour that comes about naturally. It is inherent, innate, and often more appealing than accepting a reality that would be seen if the issue had been rigorously, deliberately and consciously assessed and analyzed.

Related to and possibly confused with 'self deception' is 'denial'. When, after thorough assessment and

analysis, one perceives a situation as being a fact based reality, but others don't accept or agree with that perception, the reaction is to say that the non-believers are in a state of behavioural denial. But the doubters may not be denying something that they subconsciously know is wrong. Rather, they may well be in a state of 'self deception'.

Knowledge and Technology

For the past five hundred years or so western humanity has demonstrated great success in finding new knowledge of every sort. The new knowledge acquired in the sciences has then been developed into technologies that have made enormous contributions in the way of better medicines and medical services, more and better quality food, more comfortable and safer living conditions, effective infrastructures of utilities and transportation, and to put at humanity's disposal greater power than previously could be obtained from animals, humans, simple windmills, and local waterpower. Technology has been applied primarily with only the direct and indirect interests in mind of humankind, an anthropocentric perspective.

Along with the benefits to humankind, the unintended side effects of applying these technologies anthropocentrically has been the deleterious effect they have had on each and every aspect of the *Predicament*. Humanity's indiscriminate use of technology has degraded the combined ability of the atmosphere, the hydrosphere, the lithosphere and the biosphere to maintain a sustainable ecosphere which is the required foundation for the support and survival of all species, including *Homo sapiens*.

Lack of Holistic Perception

Many aspects of the *Predicament* have been created because of a narrow, almost unidimensional, line of thinking and action without consideration of side effects. For example:

- Burning fossil fuels to obtain inexpensive energy without thinking that the wastes produced have resulted in the emission of huge quantities of carbon dioxide that have contributed to global warming.
- Freon, used to facilitate refrigeration, when released to the atmosphere has led to the

destruction of the ozone layer over polar regions.

- The eradication of or the extensive reduction in the incidence of many diseases due to improvements in medicine has contributed to the population explosion.
- The use of rivers and lakes to act as repositories for industrial and human wastes has resulted in the contamination of these waters, the loss or reduction of species of marine life, and the loss of use of these waters for human consumption and/or industrial purposes.

This list could go on and on with illustrations to cover practically every aspect of the *Predicament*. In each case, in achieving some obvious and immediate benefit to ease the travails of human life the result has also contributed to the *Predicament* and the loss of the sustainability of the ecosphere. Some of the detrimental effects could have been avoided or mitigated had there been a holistic comprehensive assessment of possible side effects.

There are several attitudes and behavioral characteristics that have contributed to this tendency for unidimensional approaches to problems. They include:

- The deep narrow compartmentalization and specialization of knowledge in education, in government organization, and in industry. Moreover, these locations of deep specialized knowledge are jealously and strenuously guarded, which creates a barrier to overcoming the deficiency of capability for holistic assessment and analysis.
- In line with the previous point, the paucity of institutions and organizations throughout western societies that are able to examine issues and to develop policies on a holistic basis. Yes, there are and have been interdepartmental committees, but those are not effective substitutes for entire facilities or institutions devoted to the holistic and comprehensive dynamic assessment and analysis of issues.
- The non recognition that solutions to complex problems working through complex systems may be counter-intuitive. That is, in complex dynamic systems there could be feedback effects that act

to counter the action intuitively thought to improve the situation under consideration. In such cases, the eventual result may be quite the opposite to what had been expected by the supposedly corrective action. The possibility of the situation being counter-intuitive can only be determined by a thorough holistic analysis which may determine that an intuitive corrective action could give rise to feedback effects that would aggravate rather than ameliorate the situation. Such analysis also may show that some quite different non-intuitive action could either have no or reduced deleterious feedback effects and would be more likely to achieve the desired result.

- The non recognition that stability in complex systems require regulators that cannot be removed or destroyed without imperiling the stability of the system.

There is an argument that the current AIDs program being pursued in Africa is counter intuitive. That is, the current emphasis rests on the intuitive desire of relieving suffering by obtaining anti-viral drug treatment for all HIV/AIDS patients. The hope is that as it becomes evident that those infected will be treated, there will be wider acceptance of being tested for HIV, and that will lead to a reduction in infection. Just how and why that would likely occur isn't clear.

A more thought out or counter-intuitive program (that might be seen as hard-hearted, offensive and 'politically incorrect') would be on the line of triage, to accept that those infected are going to suffer and are already lost. But with limited resources, a better long term approach would be to concentrate on reducing the incidence of HIV infection through safe sex education and making condoms freely available. In this regard a report has noted that the use of condoms has become de rigueur in one far-east country's sex industry. Apparently it is almost impossible to buy unprotected sex. The result is that the incidence rate of HIV has fallen dramatically.

The intuitive immediate response to the repeated famines in Ethiopia, Eritrea, and Somaliland by emergency provision of food aid does not seem to be solving the long term problem of starvation in this region. What seems to be required for the long term

is a reduction in the population to the point where, by allowing for the vagaries of crop production, the region could rely on its own food storage to carry through periods of drought. This suggests that a counter-intuitive program when responding to famines would be to allocate a portion of the relief aid to food and a portion to family planning including female education and the liberal distribution of condoms and contraceptives.

The lack of recognition about stability in complex systems is particularly relevant to the growth of the world's population. In ancient times, there probably was high fertility due to the drive to copulate, and women were either pregnant or nursing a great deal of their reproductive lives. But the population increased only imperceptibly due to the regulating and negative feedback control effect of high mortality in pregnancy, in child birth and in infancy, a short life span caused by disease, accidents, loss to predators, and insignificant medical services.

Gradually humanity's predators were eliminated. Advances in medicine and medical services decreased pregnancy, birthing and infant mortality, as well as deaths due to disease and maladies. And living became less dangerous. But these improvements to human well-being also had the side effect of eliminating the regulating and control measures that previously had kept the world's population almost static.

Without that negative feedback acting as a regulator on the growth of population, and without humankind taking steps to introduce a replacement for that natural regulator, the world population has expanded at a prodigious rate to heights that would have been unimaginable 100 years ago. The rate of increase recently has shown signs of slowing, but the absolute level of the world's population is still increasing and demographers see it increasing until well into the latter part of this century, providing that there is not some sort of world wide epidemic or catastrophe.

In "Revolution and Rebellion In The Early Modern World" Jack Goldstone argues persuasively that the primary cause of the English, French and Chinese

revolutions was related to population increases due to the absence of what had been periodic epidemics. These historic events demonstrate two important points. First, the loss or absence of what had been a natural population regulator has led to over population pressures. Second, societal pressure due to over population has led to rebellion or revolution.

Based on these examples it can be argued that the Rwanda massacre was driven primarily by population pressure that incited ethnic conflict. The same could be said of the fight over Kosovo, if the large family size that was evident amongst the Kosovo refugees that came to Canada was representative of Kosovo. Population pressures with associated societal instability are also evident in the Palestinian Authority (where the new Prime Minister is reported as being the father of 12), in Haiti as well as in China and parts of India, to name the most obvious locations where these two conditions exist.

The more humankind has striven to eliminate its enemies, without providing some human made population regulator, the more and the faster the world population has expanded. It seems that humankind doesn't have the sense to control its own reproductive capacity. Some argue, based on the theory of the so called 'demographic transformation', that the human population will stabilize with the growth in education, economic development and the reduction in poverty. Fertility rates have dropped close to or below replacement rates in some affluent well educated countries, but on a world wide basis such hope may be optimistic as a world wide demographic transformation, and if it occurs at all, will be long in coming.

Nature may reassert itself by providing population regulators in the way of new human diseases like AIDS, ebola and/or a new type of flu pandemic as well as old diseases that have become immune to medication, or the resource based limitations on the human carrying capacity of the planet. The result could be horrible world pandemics and/or famines. The human aversion to **short term** suffering is spurring the research of new vaccines and medicines to combat possible new diseases, but is doing

practically nothing in the public domain to curtail human reproduction in order to avoid the **long term** exacerbation of the *Predicament* due to over population.

If humanity is at least slightly rational and not inhibited by its invalid myths and beliefs, there should be serious concern about the overwhelming deleterious effect of world population on the *Predicament*. If that was the case, the production and free provision of contraceptives and birth control measures would be seen as just as important to human well-being as the development and free distribution of vaccines and new drugs. While these latter might have the potential to combat possible new or regenerated old diseases, they simultaneously might eliminate the effective population regulating effect of these diseases.

Myths & Beliefs

All cultures probably have their myths, their stories that are not based upon fact but upon long forgotten opinions or interpretations of supposed causes to old events. As long as myths are recognized as being just stories they are harmless and may well add colour and character to a culture. But when myths become hardened beliefs and are treated as reality, then such myths can and do become highly dangerous. There are two dangers that have a compounding effect.

If a belief, based on a myth garners popular support, the total society may act as though the belief is based on fact and therefore is valid. Disbelievers may express their dissent and conduct their personal life accordingly, but must acquiesce to the myth based belief in their activities related to the collective. Then, because myths and the beliefs thereof are not based on fact, human actions in response to such beliefs may well lead to conditions quite contrary to what would have resulted had those human actions been based on thorough objective assessments of the related facts.

Unfortunately there are a number of religious, philosophic, technological and economic myths that have become hard beliefs that have contributed to the planet's *Predicament*.

Religious Myths, Beliefs & Doctrines

The myth that there is an omnipotent, omni-present, ubiquitous god is the most powerful belief amongst the followers of the popular religions. Also powerful is that "the word of god", either that attributed to, or recognized as having been written by the principle prophet of the religion's god, is to be accepted by the true believers as being the gospel that must be followed. Compounding the situation are two further myths: that the living leaders or clerical hierarchies of some religions (or sects thereof) are the living representatives of their god, and that their doctrine also is to be accepted by true believers as the word of their god.

I have been 'politically incorrect' by not following the conventional capitalization of "god", thus giving the word the same treatment that would be accorded pagan gods and those of ancient Greece.

Another powerful religious myth that has become a strong belief is that, aside from purely natural causes, the state of the world is determined, not by human actions but by the will of god. This belief exculpates humankind for the *Predicament* and also excuses humankind from being responsible for redressing the situation.

These five religious beliefs, not based on facts but on myths, have had a profound determining effect on governing, laws, other *Traits*, customs and the culture of those societies that have significant followers of the popular religions. Thus, these five beliefs have both huge direct and indirect exacerbating effect on the *Predicament*.

Although this section may be 'politically incorrect' and offensive to some, these words must be stated and included in a paper that is attempting to address the *Traits* that have contributed to the *Predicament*. Without directly addressing the religious myths and beliefs this paper would be incomplete, it would lack credibility, and would raise the question as to the author's moral integrity.

Other Religious and/or Cultural Beliefs

Following are some beliefs that may not be based on myths but have arisen naturally from the survival instincts of humankind. They have been reinforced by religions, and help explain our anthropocentric behaviour.

- *Homo sapiens is the "superior species" that shall have dominion over all other species.*

This belief may be the primary cause of our anthropomorphism that has separated our species from all other species as well as from the ecosphere.

- *Man must populate the earth.*

Obviously man has been most successful in following this belief! That is if one believes that **success** is the current huge world population and the forecast of further population increase to possibly 10 billion or more.

- *Human life is sanctified and the human right to procreate are absolutes that are not to be compromised or relieved in any way.*

Not only has this belief contributed to the world's population problem, but it has provided the basis for pressures to deprive women of the right to their bodies.

- *Immediate human suffering must be alleviated even if it means that there will be greater suffering in the future.*

Famine food relief and the current HIV/AIDS program in southern Africa (discussed previously) are examples where this belief may have relieved immediate suffering, but while doing so could be the cause of more suffering in the future.

The stated beliefs, coupled with earlier discussion of the immediate gratification of copulation, are the primary determinants of the huge, still growing world population. These beliefs thus are, along with energy dissipation per capita, the cause of the scale of human activity that is beyond the tolerable level for sustainability of the ecosphere.

These beliefs have promoted individual 'rights' without acknowledging the individual's

'responsibility' to the collective.

These beliefs also are inconsistent, and/or incoherent, by simultaneously supporting the violation of the 'right' of women for their bodies.

Moreover, these beliefs promote anthropocentric behaviour by encouraging the misallocation of resources to the immediate human well-being rather than to the long term sustainability of the ecosphere, i.e., to activities that exacerbate rather than alleviate the **Predicament**.

Economic & Technological Myths & Beliefs

The following list (by no means exhaustive) of beliefs that have arisen in western industrialized societies may have been caused by a combination of the natural instincts of man's reptilian brain and the noted belief that "*Homo sapiens* is the "superior species" that shall have dominion over all other species". This combination thus has resulted in our anthropomorphic development of economic theory as well as our indiscriminate use of technology without considering the long term consequences of using technology.

- *The common property of the planet in all its varied forms is indeed common property to be plundered and utilized by each individual for its own gratification with no sense for the common stewardship of that common property for the long term common good of the world community.*

The worst examples of this belief are: the destruction of the world's fisheries and forests due to over harvesting, the conversion of common agricultural property to other uses, and the pollution of the common property of the air and the waters of the planet, all occasioned by the natural instinct for personal aggrandizement compounded by the pressure of high world population.

- *The natural resources of the earth (including its flora and fauna) are of no value unless they are able to provide some direct, visible improvement in the well-being and the economic wealth to humanity immediately or in the discounted future.* The atrocious rate of loss of biodiversity can be attributed to this anthropocentric belief. Central

to "cost-benefit" analysis is that the negative "costs" of not only the loss of biodiversity, but damage to the sustainability of the ecosphere, is ignored. Thus, we have the *Predicament*.

- *The ability of technology to overcome all of the physical problems that humanity may encounter.* Undoubtedly through technology humanity has created and continues to improve the standard of living throughout the world even though the use of technology has contributed to the *Predicament*. However, it is probably wishful thinking to expect that technology will be capable of solving all of humankind's physical and/or material problems in the **short term** without in the **long term** exacerbating the *Predicament* more than benefiting humankind.

- *The resources of the earth are infinite, can be consumed at any rate that humanity so desires and still there will be more, or an acceptable substitute.*

Although obviously fallacious in our finite world, this belief still is a determining factor in our anthropocentric use of the earth's resources and the drive for economic growth. Nowhere is this more obvious than with respect to oil and natural gas consumption where only in the past few years has there been an admission by **some** of the relevant specialists that indeed the world may be at or close to its peak level of conventional oil production. As for there being a substitute for fossil fuels, there are other sources of energy, but no easy other sources of long-chain hydrocarbons that have been so important in the production of plastics and other human made materials.

- *The biosphere is capable of absorbing, without detrimental effects, all of the wastes and indestructible chemicals and products that humanity may create.*

The gaseous and liquid members of the ecosphere, ie. the atmosphere and the hydrosphere, have been and still are the principal recipients of, and thus are polluted by the fluid wastes created by humanity, be they bodily wastes or those produced in manufacturing, transportation, and providing

utilities and services supposedly for human benefit. In addition humanity has been and is producing chemicals that do not occur in nature, are not biodegradable and which are detrimental to the health of flora and fauna including humans.

Examples are:

- The destruction of the ozone layer due to indiscriminate release of freon from refrigerating equipment
- Air pollution due to nitrous and sulphur oxides and other gases that are poisonous and/or detrimental to life and/or are corrosive. These gases are created by the consumption of fossil fuels and from a variety of manufacturing and transportation activities as well as in the provision of utilities and services.
- The generation of "greenhouse gases", primarily carbon dioxide, that are contributing to global climate change resulting in increased temperatures, more droughts, increased numbers and intensity of hurricanes, increases in sea levels with attendant flooding and loss of low lying land, loss of polar ice caps, changes in ocean currents, just to name a few of the nasty effects that can be attributed to human consumption of fossil fuels.
- The pollution of fresh and salt water with human and industrial waste has resulted in the loss of marine life and the associated source of human food, the destruction of habitat for water birds and animals, and, the loss of fresh water for human consumption, irrigation and industrial use.
- The solid wastes produced by man as a byproduct in the achievement of an improved standard of living that are either 'disposed of' in landfills, or are simply dumped in deep lakes or the seas and oceans. With respect to landfills, there is the myth/belief, that there is an infinity of landfill sites or if not, there will be other means for disposing of or recycling solid wastes. This myth/belief is similar to that regarding the infinity of resources which also is based on the myth based faith in the ability of technology to solve all physical problems of humankind.

- *The human species stands apart from and is not simply one of several million species living in a complex planetary ecosystem.*

Modern humans act as though they are not just one of thirty odd million species that inhabit this planet. As noted above, this anthropocentric mode of behaviour derives from the religious belief that *Homo sapiens* is a superior species while the other species are to be exploited for human benefit.

- *Economic growth can go on forever.*

At some point in time on this finite planet, the growth in material production and consumption, and therefore economic growth, must reach a mature condition of stability and continuity with zero economic growth within a sustainable ecosphere. Knowledge, music, art, thinking, and such abstract or meta-physics can keep growing, providing that the participants thereof do not rely on these activities for a livelihood that then is directed to consumption and services of material goods and the production of wastes that would have a negative effect on the *Predicament*. However, the belief in and pursuit of economic growth is so strong and ubiquitous that it drowns out any hearings or consideration of its malignant effect on the *Predicament*. Nor is there any appreciable recognition that if the ultimate priority is to achieve a sustainable ecosphere, then that, and not the economy and economic growth, must become the determining factor in the activities of individuals, groups, societies and government, such that the economy is a subset of the environment.

While some of the *Traits* may have contributed more than others to the *Predicament*, it is the synergistic and the compounding interaction amongst all of the *Traits* that has been the real cause of the *Predicament*. Again, the question is not whether each of these observations has contributed to the high standard of living and the "good life", but whether each has played a contributing role in the deterioration of global living conditions and has generated the world *Predicament*.

Conclusion

The extant *Traits* can only exacerbate the

Predicament. Unless humanity takes control of these *Traits* there seems to be **little if any possibility** of achieving sustainability of the ecosphere and of continuing with human life as we have come to know it.

If the world *Predicament* is to be redressed, humankind will have to use its **big brain** (see other readings) and base decisions and actions upon deliberate, conscious, holistic thinking using hard facts and thorough analysis rather than on invalid beliefs. Also, humankind must ensure that its **big brain** is controlling rather being driven by the primordial or visceral instincts of its reptilian brain. The other *Traits* exhibit a dual, but diametrically opposite role in contributing to the improvement in the human condition, while at the same time also contributing to the *Predicament*. This duality or ambivalence suggests that for these other *Traits* the problem is not that they are wrong, but that they have been applied indiscriminately, without any exercise of judgement and choice as to whether their negative effect on the *Predicament* is greater than their benefit to human well-being.

The above prescription for redressing the *Predicament* would require an enormous self effacing effort by individuals and societal leaders worldwide. It would require humanity to throw off its anthropocentrism and deliberately refashion human living so as to achieve a sustainable ecosphere. That could happen only after there is a world wide consensus accepting that:

- The definition of the *Predicament* is valid;
- The scale of HUMAN ACTIVITY has seriously **Overshot** the tolerable level for a sustainable ecosphere;
- The described *Traits* have been an indirect determinant of the *Predicament*;
- Invalid myth based beliefs must be set aside;
- Natural instincts must be brought under the conscious control of the cortical brain; and,
- All of the above **long term** oriented factors must be accomplished where a **short term** orientation has prevailed and with some democracies being strongly religious and/or having constitutional 'rights and freedoms'.

Only an extreme optimist could believe that this scenario has any chance of occurring before the state of the Predicament deteriorates to the point of world wide chaos that probably would precede wide spread societal collapse.

Reflections

Jared Diamond's recent book "*Collapse*" describes how the societies of Easter Island, the Norse on the west coast of Greenland and the Mayan of Mexico all collapsed due to the indirect cause of their traits, some identical to those discussed in this paper. Diamond also describes instances where societies had recognized that they were in trouble and had taken corrective action.

A microcosm of world wide collapse is what we see today in Haiti. The Haitian population, living with traits quite similar to those discussed in this paper, has grown far beyond the supporting capability of the land even if it had not been destroyed by over cultivation, deforestation and erosion. There are no other natural resources and no other apparent realistic means for Haiti to become self supporting. For years Haiti has been in a state of political and societal chaos while the bulk of Haitians have experienced subsistence living and the country has been receiving substantial foreign aid. The recent Presidential election is hoped to provide some stability where there has only been chaos. But what is the possibility that stability can be established so that Haiti could survive without interminable foreign aid? Is there any realistic means to significantly and quickly reduce the Haitian population to that which can be supported by the country's resources? Without foreign aid the Haitian society probably would collapse, just as did Easter Island, the Norse on Greenland and the Mayans.

Modern *Homo sapiens* with a syntactical brain (may be classified as *Homo sapiens sapiens*), in geological and evolutionary terms is a very new species whose big brain has evolved through a succession of single seemingly benign mutations. But from the perspective of a sustainable ecosphere, a reasonable assessment is that the combined succession of its brain mutations is malign. And, malign mutations do not survive for long in evolution. *Homo sapiens sapiens* thus has the

choice of either becoming a disappearing species, or of changing its behaviour, its way of life, in order to achieve a sustainable ecosphere. By choosing the latter course, and it is a matter of choice, humankind will have set the stage for a further evolution of the human brain where the cortical brain controls human actions rather than such actions being determined by invalid beliefs, visceral, and primordial instincts. Humankind's use of its **big brain** is the only way out of our *Overshoot Predicament*.

There has been no joy in writing this paper. It has been a bit like writing a Greek tragedy of which the writer is not a member of a disinterested audience, but is a participant. It is depressing to realize that **Homo sapiens**, the only species with a syntactical brain able to think comprehensively, has used that ability for its own immediate gratification without regard to the future of its own species, to say nothing about its disregard for all other species.

Further Readings

Other papers by the author related to our planet's *Overshoot Predicament* have been published in *Proceedings* and are available from the author <buznix@magma.ca> or on the CACOR website <HTTP://www.cacor.ca>.

"Tough Decisions" Series 1 Number 2 *Proceedings* March 1992

"Sustainable Development: A Mirage and a Dangerous Trap" Series 1 Number 5 *Proceedings* March 1993

"Can Mankind Achieve a Sustainable Ecosphere?" Series 1 Number 7 *Proceedings* Dec. 1993

"Survival: Humanity vs. the Ecosphere" Series 1 Number 8 *Proceedings* Sept. 1993

"A Visitor's View of Earth" Series 1 Number 23 *Proceedings* Sept. 1997

"Our big brains can overcome our selfish genes" Series 3 Number 4 *Proceedings* June 2002