

Report to the Canadian Association for the Club of Rome

by the

Impediments Working Group

22 December, 1991.

The Chairman of the Impediments Working Group (#1), Art Hunter, is an aerodynamicist who spent 15 years in the design and development of spacecraft and space robotics hardware. He attended the National Defence College in 1985, while employed by the National Research Council. He is now the President of a private firm doing consulting and development of a telecommunications product for security applications.

The Working Groups

At the Annual General Meeting of CACOR, on September 18, 1991, it was agreed that three working groups would be established to try to establish a means to assist mankind in resolving the dilemma that has been called the World Problematique. The three working groups would have the following broad mandates:

Working Group #1

To develop a comprehensive listing of impediments, which are clearly evident, to resolution of the Global Problematique.

Working Group #2

To develop options to overcome the impediments identified by Working Group #1

Working Group #3

To develop a recommended integrated plan to resolve the Problematique.

This ambitious strategic plan is intended to possibly form the backbone of future submissions made by the Club to other decision making authorities,

The following is the Report of Group #1.

Disclaimer:

The study group members are Canadian residents, who come from different cultural backgrounds. As such, the views presented herein represent their views of the impediments to the resolution of the problematique that are current at this point in human history in this Canadian society.

GROUP #1 MEMBERSHIP

Art Hunter (Chairman)

Ian Nalder

Ron Manchee

Alan Jones

Introduction:

Population, its size and rate of growth, is the fundamental root cause of the problematique. All the many dimensions of the problematique would be significantly reduced if there were only one billion people on the planet. A smaller world population would remove many of the problems from the list and those remaining could be readily managed.

However, this is not the case. A definition of the problematique, for this study, is vital to hold the various parts of the whole together.

*The First Global Revolution*¹ defines the problematique as "the massive and untidy mix of intertwining and interrelated difficulties and problems that form the predicament in which humanity finds itself". This definition is so vague that it almost meaningless.

*The Limits to Growth*², written in the early '70s clarifies the problematique as "...the complex of problems troubling men of all nations: poverty in the midst of plenty; degradation of the environment; loss of faith in institutions; uncontrolled urban spread; insecurity of employment; alienation of youth; rejection of traditional values; and inflation and other monetary and economic disruptions. These seemingly divergent parts of the 'world problematique, have three characteristics in common: they occur to some degree in all societies; they contain technical, social, economic and political elements; and, most important of all, they interact"

In retrospect, some of these problems (such as the alienation of youth) may, at first seem to be particular to that decade. Nevertheless, the majority of the issues cited loom even larger today and have been overlaid with new threats to the future such as degradation of the global ecosystem. *The First Global Revolution* acknowledges this ever changing mix of problems and notes "new factors, such as changes in human behaviour, the emergence of seemingly irrational movements, including terrorism, and the growth of individual and collective overt selfishness thrown up

¹ *The First Global Revolution* by Alexander King and Bertrand Schneider. Pantheon, 1991.

² *The Limits To Growth* by Dennis and Donella Meadows. Universe Books, 1972.

by our materialistic society, have definitely become elements of today's problematique". This provides some more contemporary examples, (though the importance of say irrational movements is somewhat arguable) but comes no closer to providing a workable definition.

For a more manageable definition, it must be understood that we live in a global system: culture, nature, politics, economics, science, all interact to an extent that drawing related boundaries merely obscures the workings of the system. Given that, our definition of the problematique is that while humans are making major changes to the global system, we do not have enough knowledge to understand the effects nor sufficient methods of control to maintain system stability. This has resulted in the "predicament of mankind", defined here as the fact that the global system -- our life support system -- is seriously threatened. Until we understand the global system and develop political, economic and social mechanisms to reduce the scale of changes, then humanity's future on this planet will be bleak indeed. What then are the impediments to resolving the problematique?

At the heart of the problematique is the hyperbolic increasing scale of human activity. There are, of course, two facets: increasing population and increasing per capita consumption. The first is a problem of the "south", the second belongs to the "north". The committee has a perspective on the problematique from the "north". We will focus primarily on impediments to reductions in consumption.

CATEGORIES OF IMPEDIMENT

1. Economic

- a. Pricing policies - True costs of consumables are not reflected in the wholesale price. The cost of replacement of the resources and clean up of the environment from the extraction, processing, manufacture and ultimate disposal are not adequately covered in the selling price. The replacement costs of non-renewable earth resources like metals, hydrocarbon fuels and upper atmospheric ozone are moot as once consumed they are irreplaceable in time scales of either hundreds, thousands or millions of years.

Substitution is considered the prime alternative. Alas, substitution of the ozone layer is a far more complex problem than the substitution of an earth resource (e.g. copper). The true cost will be paid by future generations.

- b. Agricultural profits (e.g. cereal grains) for the distributors are rising while the returns to the farmers are declining. This results in the inability to properly manage the soil.
- c. All innovation and money is put into increasing the yield for this year by use of herbicides and fertilizers with little regard for the long term viability of the soil. The result is a reduction in soil quality and an ever increasing dependency on chemical means to maintain high yields as the soil leaching process continues to grow.
- d. Some of the huge investments in infrastructure by governments, business and individuals provide most people with seemingly rational arguments to resist change. Almost any threat to the status quo is a threat to an investment. Needed radical changes to social systems are very difficult as there are too many vested interests in opposition to any change no matter how vital (i.e. legal, educational, regulatory, accepted practices, instruments of commerce).
- e. The rapid depletion of renewable and nonrenewable resources is not understood by populations. With 25% of the world's population consuming 75% of the resources without any rationing scheme other than market forces, there is an understandable desire on the remaining 75% of the world's population to aggressively seek their "fair" share. This process aggravates an already unstable consumption frenzy. There seems to be an inability to identify "life support" resources and to apply special conservation management methods.
- f. The economic interdependencies of all nation states have caused the yielding of portions of "national sovereignty" to a system that has no single management body. The countries as individual nation states can't act unilaterally on many matters. The United States of America has shown on several occasions that their "will" dominates the "will" of the lesser economically

and militarily developed countries. Other "powerful" countries often band together to force others to accept schemes that are economically advantageous to the "power bases". Negotiating with 170 other nation states in forums like the United Nations, the World Bank and continental trading blocks is often a slow process with mixed success rates.

- g. The World debt crisis has been and will continue to be an excuse for lack of global unity in addressing the Problematique. Previous financial mismanagement (domestic debt and loans to third world nations) and lack of accountability is often attractive to the banks of the well developed nations. Maintaining the north-south economic imbalance is very much in the best interest of the northern states.
- h. National security has historically been used excessively to generate a huge drain on world resources and human energies. Money, that could be used for more productive means of improving the human condition, has been channeled into weapons to protect and threaten neighbors on a massive global scale. Fear and aggressive behaviour to "right" historical "wrongs" is readily justifiable at many levels of society in almost all cultures. Affordability becomes a convenient excuse to not address the other global issues on the same scale.

2. Social

- a. Unwillingness to reduce or not seek higher standards of living today for longer term quality of life of future generations. Quality and quantity have identical meanings to many social institutions and people. There are very few mechanisms to help define a 'gentle' value system.
- b. Who knows? Who cares?
 - i. Inability, by those who are aware of the problematique, to express it in terms that the general population can understand and believe.
 - ii. Inability to demonstrate the 'costs' associated with lifestyle. The belief that one is invincible (when happy, comfortable, healthy) often leads to long term and short term

- behavioral patterns that have costs beyond self destruction of that individual. Driving while intoxicated is a classic example of an attitudinal and behavioral change that is possible at an individual level to avoid the costs of highway death and maiming. Costs of burning hydrocarbons are difficult to demonstrate at an individual level. Unfortunately, often those who have the most immediate gains are not the same people who bear the burden of debt.
- iii. The "If it ain't broke don't fix it" attitude is typical of the reactive rather than proactive mentality of individuals and institutions. If it is not an immediate threat, the problem is not vital and action is postponed. "Wait till it becomes a problem we can't live with, then we will fix it".
 - iv. "Live for today" and "What's in it for me" attitudes are common expressions of a social dysfunction with a focus on the rights of the individual over the rights of society. Sadly, the individual often has insufficient understanding of the longer term issues but is fully aware of the desires for immediate resolution of uncomfortable situations. When left at this level, each individual will opt for short term comforts for themselves rather than investing (not consuming) for future generations.
 - v. Low quality control of educational course content feeds consumerism to our youth. It is also a lack of appreciation of the world as anything other than an infinite sink of wealth and beauty that we are free to exploit at almost any cost. The inertia in the system prohibits rapid responses.
 - vi. There is a lack of an ability to accept the level of seriousness of an issue until adverse economic or health impacts are felt by the individual. This augments the perception of lethargy and disregard for the future. Further, there are a host of "doom preachers" that are seeking economic support for their cause. It is far easier to ignore them all than to attempt to evaluate each on a scale which few have the background to be able to assess accurately.
 - vii. Individuals are not willing to accept blame that they are, in part, responsible for the Problematique. Acceptance of the legitimacy of senseless value systems and failing to act responsibly is a major human failing.
- c. The consumption mentality is passed from generation to generation (time) and across political boundaries (space) as well as to many cultures. This process is spread by and maintained by educational institutes, advertising (TV, radio, newspapers, signs, magazines), peer pressure, professional organizations, political parties, governments, industry, tax structures and much more.
 - d. "I want it all and I want it all now!" attitudes have been prevalent in society which have their roots in the high expectations forever increasing consumption. Generational improvements in standard of living is expected in first world countries.
 - e. Proving a causal relationship to events, often termed "Burden of Proof", permits many to follow actions that are contrary to natural justice. For example, the dumping of mercury into rivers that serve as a source of food (fish) and drinking water for downstream residents is very difficult to correct as the legal system demands that hard evidence of cause and effect be established. The "Burden of Proof" rests with the injured parties who often do not have the same economic, legal and social connections of the offending industry. Establishment of credible links, which is often not possible, between cause and effect can consume many resources and take a considerable amount of time.
 - f. Faster and bigger returns on emotional, educational and financial investments are being sought within our society. Time investments are expected to yield a return that is measurable in concrete terms. Often these terms have significant standard of living dimensions.
 - g. A growing attitude of increased production output has led to a decrease in quality (planned obsolescence). Reductions in quality leads to

shorter lifetime of the end product. Disposal, rather than repair, recycle and reuse, is most profitable for producers but it accelerates the devastation of natural resources and poisoning of the land, the waters and the atmosphere.

- h. Generation of technical, financial and industrial knowledge has received high priority in all OECD countries due to its ability to increase standards of living. This often leads to the rediscovery of existing knowledge and know-how many times over as the "library" of mankind's knowledge is difficult to access. We are not very good at managing and disseminating the existing knowledge database. Specialization in improving industrial output is encouraged while other knowledge data bases are of lower priority. Dollar costs for this consumption oriented knowledge generation leave little flexibility to properly address the problematique.

3. Media

- a. The mass media often tend to focus on the bizarre, the incredible and short term emotional issues as single events unconnected to the human condition. Integration of historical and recent events that have profound implications, is not possible without analysis of events by those better equipped with facts and trusted opinions. Clearly there are some excellent leaders in the media that aspire to this end but there predominates a focus on low quality news that sells newspapers but leaves many people uninformed of the many serious issues included in the Problematique
- b. Very low attention span is being taught by the mass media. "World News" is often condensed to the most simplistic statements that leave the reader with very little appreciation of the causes and future implications of the events reported.
- c. Television is an instrument of entertainment notwithstanding its tremendous potential to be informative. Often informative reporting blends with the entertainment objective to the extent that neither is achieved. Recent hostilities in Iraq and the role of the media demonstrated this phenomenon.
- d. Sensationalist Environmental groups are getting the headlines on single issues (killing seal pups), which are laudable in their own right but are often

distant from the daily activities of populations. The distinction between human interest and survival of the human race is never a criterion in the selection of material for broadcast. Credibility of organizations that focus on the macro impacts is eroded in the eyes of many as visual images are not easily provided. It is very difficult to grasp the concept of "the thinning of the ozone layer" without clear images that are left in the viewer's mind.

- e. News" is, by our social norms, negative information and consumers of the media output become hardened to violence, bizarre events, the unusual, terrorism, political crises, war, vivid pictures of starvation/death, etc. It is very difficult to ever see anything positive with the world. "I am helpless in this world of vast problems".

4. Cultural

- a. The ability to conceive thoughts in distance and time is difficult for many individuals. The future and the other side of the world are concepts that are sufficiently vague that connections to today and an individual's behaviour and attitudes are not possible.
- b. The honest belief that earth's resources and all life forms are there to be exploited by mankind are founded in Judaeo-Christian teachings. These teachings influence behaviour in a very significant way.
- c. The American dream of "more is better" is real. It is possible to progress from rags to riches in one generation. Winning the lottery and freedom for life to consume without financial fear is a child-like dream of a perfect world that many carry to their graves. During a life time, in a consumer oriented culture, every effort is made to achieve this idea life-style.
- d. There exists a near religious fervor in the belief that all problems can be solved with new technology. This was the instrument that has caused many of the problems we now face. Is it not rather naive to think that this same instrument will be our salvation? Single tool technological solutions and fixes often do not accomplish that intended and have a history of doing further

damage to the ecosphere. Unbounded technological development without regard to the preservation of the ecosystem seems to be encouraged by cultural norms.

5. Political

- a. Government (City, Regional, Provincial, Federal) and industry have a short term focus of pleasing the electorate or the shareholders without incentives for long range ecosphere preservation. The duty of Governments in shielding the population from long term threats to survival has been abrogated for many decades.
- b. The planet is not seen as one intricate functioning system that has to be managed as a whole. Instead, problems are addressed in a piecemeal fashion which often adds instability to an already unstable system. Micro legislation has never been successful at solving issues but, as an instrument, it has kept governments in power.
- c. The inability to see the future very clearly leads to the dilution of issues that have a 20 year lead time. Ozone destruction can take place 20 years from time of CFC release. Less significant but immediate problems get far more attention than those with tremendous impact if the damage threat is not imminent.
- d. Inter-dependencies of nations at a global level make it difficult to act unilaterally on any point of importance. Gaining consensus is even more difficult.
- e. The willingness to provide exceptions to environmental protections to maintain jobs is a widely accepted practice in many countries, including Canada. Development and economic growth (jobs and GNP expansion) are the final criteria that politicians use to assist the decision making process.
- f. Inability of politicians to embrace a conserver society. Shortages, or projected shortages, seem to be addressed by an increase in supply rather than through wisely managing consumption. Generation of more electricity has characteristically been the choice rather than improvement in the efficiency of utility.

7. RECOMMENDATION

It is recommended that the members of Working Group # 1 (the "impediments" working group) be invited to the first meeting of Working Group # 2 (the "options" working group) to clarify any of the concepts presented in this report. Details of future participation of the Working Group 1 members can be detailed at that time.