

# PROCEEDINGS

## ANALYSIS OF THE HUMAN PREDICAMENT

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## The Age of Oil

When we discovered plentiful supplies of oil just over a century ago we happened upon an exceedingly cheap source of energy which has transformed industrial civilization. A century and a half earlier it was wood, coke, and later coal, which provided the energy to launch the Industrial Revolution. It was oil, however, in terms of its low cost, convenience, transportability, and particularly its energy density, which achieved a major change in the energy equation, and in turn made possible, more than any other one factor, the world we live in today.

Few appreciate the magnitude of the energy density of oil. To cite one example, a barrel of oil (42 gallons), now selling for about US\$100.00 after allowing for refining costs, is reported to contain the energy equal to about 25,000 hours of human physical labour, or 12 men working as farm labourers for a year<sup>(1)</sup>. Measured against today's price of oil, human physical work is worth about 4 US cents a day. The average Canadian and American consumes about 27 barrels of oil a year (double the consumption of Europeans), which can be translated into each of us receiving the work equivalent of over 300 human slaves.

The discovery of oil, a finite resource, was soon recognized as a one time only energy windfall. Despite this fact, and with little if any thought for tomorrow, we quickly became addicted to its consumption for numerous purposes. While the complexities are manifold, and the full story has yet to be told, the wealth provided by petroleum soon made possible advances in transportation, agriculture, education, medicine, and a wide range of technologies which literally changed the world. Oil also established the conditions which made possible a quadrupling of human population in a century, a rate unprecedented in history. Dr. E. O. Wilson of Harvard University does not exaggerate when he says: *The pattern of human population growth in the 20th century was more bacterial than primate.*

It is also evident that the economic benefits received from oil by countries and people have been exceedingly unequal. The more advanced industrial nations of Europe and North America, as well as Japan, received an early

advantage and oil contributed greatly to their estimated 25 fold increase in Growth National Product during the 20th century.

The benefit of oil to the less developed world to the south has been very different. While oil changed the less developed world in numerous ways, including improvements in transportation and communications, few benefits were received by the 2.7 billion (42% of the world's population), who subsist on less than US\$2.00 a day. In many countries of Africa, South Asia and Latin America, low cost oil energy has had its greatest impact in the areas of agriculture and health. Both have contributed to explosive population growth, and increased capacity overshoot.

Unfortunately (a few may say fortunately), to paraphrase the title of a recent book on oil, the party may soon be over. There is now mounting evidence that a corner is about to be turned and oil production will not only peak but enter a period of unrelenting decline which James Kunstler has described as The Long Emergency<sup>(2)</sup>.

As a contribution to the much needed debate on peak oil and its consequences for the world community, we are pleased to include in this issue of Proceedings four articles written by CACOR members during recent weeks. In a statement titled **The Global Crisis**, Rennie Whitehead reviews the dangers of exponential growth and states that **"There can be no question that the greatest and most urgent priority at the present time is the replacement of fossil fuels as rapidly as possible."** An in-depth article on both the depletion of oil and climate change is provided by John Walsh in **The Impending Twin Crises – One Set of Solutions?** Our third article, **What to do in a failing civilization**, written by David Delaney, alerts us to his conviction that **"A catastrophic collapse of the economy and population of the world is more than likely."** Finally, the editor contributes a paper titled **Can Industrial Civilization Survive the Age of Oil?**

As indicated on page 28 of this issue, during very recent months a growing number of knowledgeable observers have indicated that the oil crunch may arrive much sooner than expected. At present, the public mood to an impending energy crisis appears to be a mix of denial, obliviousness, ignorance, and faith that if the worst does happen, science and technology will somehow come to our rescue. All this can be expected to change as oil prices continue their inevitable climb, and shortages begin to occur with increasing regularity. AADC

(1) As reported by US Republican Congressman Roscoe Bartlett to the US House of Representatives on April 20, 2005.

(2) James Howard Kunstler is the author of *The Long Emergency: Surviving the Converging Catastrophes of the Twenty-First Century*.

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