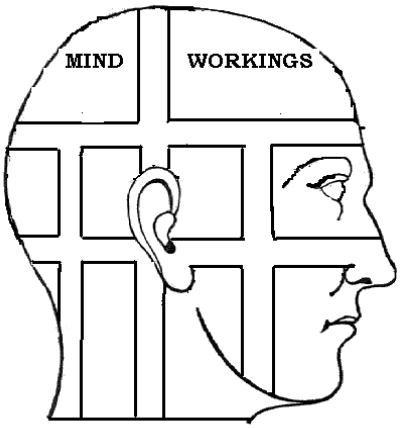

CORRUPTION, CAPITALISM, AND CARBON

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These are extraordinary times, which is an extraordinary understatement. The global economic crisis has arisen through a unique clash of financial, resource, energy, monetary, and cultural factors. Certainly all of our lives on the planet have been altered permanently for good or bad.

CORRUPTION arising out of greed and a lack of transparency and accountability is ubiquitous with no country being immune from America to Zimbabwe. It and unchecked credit are two of the root causes of the current global economic situation. Although well intentioned with respect to providing foreign aid, most national governments and other non-governmental organizations and institutions did not recognize the symptoms of this seemingly incurable human disease. Nonetheless, the G8 countries are poised to spend about 60 billion US dollars this year on aid programs excluding financial support for the IMF. The US spends about 50% of that amount annually in combined public and private foreign aid. Although no one knows precisely, it has been estimated about 20 billion US dollars are lost annually in Africa to corruption. Over the past half century nearly 1 trillion US dollars of foreign aid has gone to Africa with little to show for it.

The mantra of poverty alleviation continues to overshadowing environmental concerns with international organizations requesting about 1% of global gross domestic product (GDP) should be spent each year to combat it. However, the IFC has projected for 2009 the global GDP to increase by only 0.5% and a negative growth rate of about -1.0% for the US. Due to the dismal management of foreign aid programs historically, many private philanthropic organizations are opting to put money directly into infrastructure projects to alleviate poverty by-passing the traditional pathways. Assuming the expenditure of 500 million US dollars could support construction of one 250 mw coal fired power plant and one 10 million US gallon per day reverse osmosis desalination plant along with all of the associated infrastructure needed for transportation, housing, education, sanitation, and medical treatment, 40 of these cooperative development systems (CDS) could be built per year with the money lost to corruption. It is the combination of the infrastructural elements of electrical power, potable water, and primary sanitation that provide the foundation upon which all other factors leading to a better quality of life and alleviation of poverty are built.

A stunning irony unfolds when one realizes a new metal mine relies upon all of these fundamental infrastructural components in a developing nation. Direct coordination with the funding sources would allow meaningful improvements in the quality of life. It is these types of projects that require labor of all educational and skill levels. But mining does not possess the glowing reputation bestowed on other industries, since philanthropists and politicians alike often do not want to be associated with extraction of metals and minerals due to the negative perceptions real or not. There is also commonly less fanfare and positive press given to the dedication of a primary sewage treatment facility than to a solar powered aids research facility, the former of the two delivering a greater level of disease prevention. This type of approach in contrast to participation in policy orientated endeavors could provide the mining industry with real options for improving its overall image.

CAPITALISM once the darling of the developing world has been severely criticized due to its succumbing to the evils of corruption. In that light income redistribution and nationalism accompanied by a leaning toward central planning has become a fashionable topic once again amongst the intellectual elite. However, the failure of this approach is well documented in the collapse of the Soviet Union and what is happening in Russia today. The key is to redefine capitalism in terms of transparency and accountability conducting business not as usual but with a renewed sense of moral grounding. There is no such thing as a good or bad company only good or bad people. As noted previously, the global economy will contract dramatically this year with worldwide GDP growth hovering just near zero. It will be difficult to find the capital to fund new, let alone, ongoing development projects in the poorest regions of the planet.

Therefore, the approach should rely on more precise targeting and orthogonal thinking, combining elements of existing industries such as mining with those of private and public financing in novel and innovative ways to create the proper business climate.

CARBON has become the preeminent element to the exclusion of the others which are indispensable in our daily lives. Controlling the release of its combustion products has taken on near religious fervor, a revelation that is disappointing considering the entourage of money, manpower, and metals needed to support the use and abuse of this element on our planet. The consensus reached by stifling debate is that combustion of this element in any of its forms will cause the earth to heat up maybe a degree this century and that is bad. The solution is to regulate and trade a colorless, tasteless, and odorless gas in the developed world while allowing emerging nations to unconsciously expand their economies, populations, and pollution without consequences. China is now the number one emitter of carbon dioxide in the world. Interestingly, over the past few years a fundamental relationship has been developed that brings together the changing elements of population, GDP, energy, and green house gas (GHG) emissions for individual countries and the entire world:

Δ(POPULATION GROWTH) +Δ(PER CAPITA GDP) + Δ(GHG INTENSITY) = Δ(GHG EMISSIONS)

GHG Intensity is an efficiency term reflecting the quantity of green house gas emissions produced per unit of gross domestic product (GHG/GDP). The value is typically negative reflecting improvements in conservation, efficiency or a shift to lower emissions alternative technologies. These terms are actually a collection of constants taken from the fundamental equation which relates them additively through exponential functions. As determined by others over the past couple decades, the average annual change in GHG emissions has been estimated for the world as follows:

1.3% + 1.7% -2.0% = 1.0%

This resultant average 1% annual increase in GHG emissions worldwide is supposedly responsible for the curiously predictable annual 1.5 ppm by volume increase in atmospheric carbon dioxide levels as measured at the Mauna Loa Observatory in Hawaii. The supporters of controlling GHG emissions worldwide recommend spending about 1% of the global GDP each year in that cause, the same amount recommended for combating global poverty. Using published estimates from economic institutions worldwide, a prediction for 2009 is as follows:

1.2% + 0.5% - 2.0% = -0.3%

The estimated slight –0.3% decline in GHG emissions should translate into a slight decrease in atmospheric carbon dioxide levels of about 0.5 ppm if all the assumptions, estimates, predictions, extrapolations and theories are correct. By the middle of this century world population growth is predicted to stabilize at about 1% per year. The ability to achieve ever increasing energy efficiency through application of conservation and technology will reach a practical limit eventually yielding a GHG Intensity factor approaching 0.0%.

The Laws of Thermodynamics cannot be debated, litigated, legislated, or regulated.

In order to achieve a 0.0% change in GHG emissions stabilizing the atmospheric carbon dioxide levels under these conditions, the resultant global economy would have to accept inevitable permanent negative growth to offset the continued gradual increase in population:

1.0% - 1.0% + 0.0% = 0.0%

Obviously, the combined 2% of GDP desired to control GHG emissions and alleviate global poverty is not available under these conditions even with sharp increases in taxation and income redistribution. Priorities will be established and surely the acute effects of perpetual poverty outweigh the possible chronic ones arising from global warming. Of course permanent negative growth would take care of any emission concerns.

The annual increase in global carbon dioxide levels for 2008 was only a fraction of a ppm, which in advance of the global economic collapse has been correlated to declining earth temperatures brought on by natural processes including declining solar activity.

If global warming is occurring and is the result principally of human activity including combustion and potentially waste heat, then a measurable decrease in carbon dioxide levels should occur based on the recent decline in industrial activity and deep worldwide recession. Under this scenario, the entire planet becomes the laboratory without relying upon controversial climate models. It is not the time for governments to be micromanaging economies and severely handicapping global businesses and industries. The approach should be to allow capitalism to flourish in a transparent, honorable, and humanistic manner freeing our collective intellect to provide the innovation and entrepreneurism needed to maximize our efficiencies through cooperation and coordination. The irony is corruption arising out of the greed and ineptitude of humans may ultimately be the reason global warming as an issue disappears. In the meantime, instead of regulating and capping the quantity of emissions leaving an exhaust pipe of a vehicle for example, the approach should focus on the left side of the above equations to stimulate research and maximize fuel economy. Neither the capping and trading of invisible carbon units will not promote economic prosperity nor will draconian government intervention.

By combining and coordinating foreign aid dollars with an infrastructure intensive industry such as mining in a transparent environment subject to the rule of law, measurable progress can still be made toward poverty alleviation during this turbulent period. The reasons for the mixed success of this approach historically must be reexamined and corrected. In the meantime, the impacts of natural and anthropogenic activities on the global climate should continue to be monitored but not manipulated. There is a proper time and place for patronage as long as it does not descend into bribery and corruption. Knowing that new approaches and priorities must be set, we can reopen our minds to the prospect of using our mines for the greater good.

INFORMATION LINKS:

World Resources Institute
An Analysis of GHG Intensity Targets
http://pdf.wri.org/target_intensity.pdf

World Resources Institute
Navigating the Numbers GHG Data and International Climate Policy
http://pdf.wri.org/navigating_numbers.pdf

CRS Report to U.S. Congress
Green House Gas Emission Drivers
http://ncseonline.org/NLE/CRSreports/08Mar/RL33970.pdf

Energy Information Administration
World Energy Use and CO2 Emissions
http://www.eia.doe.gov/emeu/cabs/carbonemiss/energycarbon2004.pdf

International Energy Agency
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http://www.iea.org/textbase/nppdf/free/2000/compendium2002.pdf