The Hidden Holocaust--Our Civilizational Crisis: Part 3 - The end of the world as we know it?

by Nafeez Mosaddeq Ahmed
(Tuesday, January 1, 2008)

"All of these global crises are escalating on their own terms as a direct consequence of the very structure of the global social, political and economic system. Not only, by their own logic, do they threaten the future of humanity, they are currently intensifying and converging over the next few years. While their individual impacts are clearly devastating enough, their cumulative or simultaneous impact would be so devastating that it is perhaps beyond imagination."

In parts 1 and 2 of this series, we reviewed the origins and evolution of the modern world system through a long historical process of protracted military and economic violence, violence that continues today in the imperial atrocities being committed across diverse strategic peripheries in the Middle East, Central Asia and Northwest Africa.

This global system is hugely destructive of human life. Devoid of the capability to recognize and enact ethical values, it is driven purely by the imperatives of profit, efficiency, growth, and monopoly. Consequently, it is not only destructive of human life; it is destructive of all life, nature, and even itself.

It is now generating multiple crises across the world that over the next 20 years threaten to converge in an unprecedented and unimaginable way, unless we take drastic action now.

These crises can be categorized broadly into four key themes:

1. Climate catastrophe
2. Peak oil
3. Food scarcity
4. Economic instability

These are summarized below.

1. Climate Catastrophe

Industrial civilization derives all its energy from the burning of fossil fuels, pumping carbon dioxide into the atmosphere. The C02 emissions from the industries that drive our economies, our societies, that sustain our infrastructures, are the main engine of global warming in the last few decades. This doesn't mean that all climate change ever is due to human-induced C02. Scientists know that there are many other factors involved in climate change, such as solar activity, as well as periodic changes in the Earth's orbit. But they have overwhelmingly confirmed that these are not the primary factors currently driving global warming. The primary factor is C02 emissions induced by human activities.

The origins of climate change are no longer a matter of serious scientific debate. Early in 2007, the United Nations Intergovernmental Panel on Climate Change (IPCC) reported the findings of a three-year study projecting the rise in temperatures due to global warming by 600 scientists from 40 countries, peer-reviewed by 600 more meteorologists. The report confirmed that human-induced global warming is "unequivocally" happening, and that the probability that climate change was due to human C02 emissions is over 90 per cent.

Indeed, climate scientists last year published the results of the latest research into the relationship between the sun and climate change in the top journal, Nature. The London Times reported on the study as follows: "Scientists have examined various proxies of solar energy output over the past 1,000 years and have found no evidence that they are correlated with today's rising temperatures. Satellite observations over the past 30 years have also turned up nothing. 'The solar contribution to warming... is negligible,' the researchers wrote in the journal Nature." [1]

So what exactly is likely to happen to the climate at current rates of emissions? According to the IPCC's first report issued last year, by 2100, the average global temperature could rise by 6.4C, leading to drastic ecological alterations that would make life throughout most of the Earth impossible. This is what is supposed to happen at 6c : "Life on Earth ends with apocalyptic storms, flash floods, hydrogen sulphide gas and methane fireballs racing across the globe with the power of atomic bombs; only fungi survive." [2]

Growing evidence suggests that the IPCC projections are extremely conservative, and that the climate crisis is rapidly growing out of control. According to Dr David Wasdell, a climate expert and an accredited reviewer of the IPCC report, the final report was watered down by Western government officials before release to make its findings appear less catastrophic. Dr Wasdell told the New Scientist (8 March 2007) that early drafts of the report prepared by scientists in April 2006 contained "many references to the potential for climate to change faster than expected because of 'positive feedbacks' in the climate system. Most of these references were absent from the final version." [3]

The following IPCC report, however, distilling the research of 2,500 climate scientists, released in November 2007 only confirms that the original projection was too optimistic. To avoid heating the globe by the minimum possible, an average of 3.6 degrees Fahrenheit, the world's spiraling growth in greenhouse gas emissions must end no later than 2015, and must start to drop quickly after that peak. By 2050, carbon dioxide and other atmospheric polluting gases must be reduced by 50 to 85 percent, according to the estimates. But even this is already too late. "We may have already overshot that target," said David Karoly, one member of the core team that wrote the report. Current emissions already are nearing the limit required in 2015 to limit the warming to 2 degrees Celsius, he added in a media interview from Valencia.

But Western governments have known about this danger for years. At the June 2005 UK government conference on "Avoiding Dangerous Climate Change" at the Met Office in Exeter, scientists reported an emerging consensus that global warming must remain "below an average increase of two degrees centigrade if catastrophe is to be avoided", which means ensuring that carbon dioxide in the atmosphere stays below 400 parts per million. Beyond this level, dangerous and runaway climate change is likely to be irreversible. [4]

About two weeks after the government conference warned of this minimum threshold, the *Independent* commissioned an investigation by Keith Shine, head of the meteorology department at the University of Reading. Using the latest available figures (for 2004), Professor Shine calculated that "the CO2 equivalent concentration, largely unnoticed by the scientific and political communities, has now risen beyond this threshold." Accounting for the effects of methane and nitrous oxide, he found that the equivalent concentration of C02 is now 425ppm and fast rising, guaranteeing that the global mean temperature will rise by 2 degrees. Consequently, some of the worst predicted effects of global warming, such as the destruction of ecosystems and increased hunger and water shortages for billions of people in the South, may well be unavoidable. When asked about the implications, Tom Burke, a former government environment adviser, told the Independent: "The passing of this threshold is of the most enormous significance. It means we have actually entered a new era -- the era of dangerous climate change. We have passed the point where we can be confident of staying below the 2 degree rise set as the

threshold for danger. What this tells us is that we have already reached the point where our children can no longer count on a safe climate." [5]

According to the US National Center for Atmospheric Research (NCAR) the percentage of Earth's land area stricken by serious drought more than doubled from the 1970s to the early 2000s, from about 10-15 per cent to 30 per cent, largely due to rising temperatures. Widespread drying occurred over much of Europe and Asia, Canada, western and southern Africa, and eastern Australia. [NCAR Press Release, "Drought's Growing Reach" (Boulder, Co: National Center for Atmospheric Research, 10 January 2005] Global warming is not only melting the Arctic, it is melting the glaciers that feed Asia's largest rivers -- the Ganges, Indus, Mekong, Yangtze and Yellow. Because glaciers are a natural storage system, releasing water during hot arid periods, the shrinking ice sheets could aggravate water imbalances, causing flooding as the melting accelerates, followed by a reduction in river flows. This problem is only decades, possibly even years away, resulting in hundreds of millions of Africans and tens of millions of Latin Americans who have water, being short of it, most likely in less than 20 years. By 2050, more than 1 billion people in Asia could face water shortages, and by 2080, water shortages could threaten 1.1 billion to 3.2 billion people. Some climate models show sub-saharan Africa drying out by 2050. [6]

2. Peak Oil

There is yet another crisis emerging, which is also linked to our addiction to burning fossil fuels. That is the energy crisis. Today, the most prominent energy source is, of course, conventional oil. Here in the UK, from where I'm now writing, 90 per cent of our energy comes from conventional oil, gas and coal, but primarily oil. Without these energy supplies, civilized life in the UK would simply collapse. Transportation, agriculture, modern medicine, national defence, water distribution, and the production of even basic technologies would be impossible. This formula applies across the board, throughout western industrial civilization.

The basic rules for the discovery, estimation and production of petroleum reserves were first laid down by the world renowned geophysicist Dr. M. King Hubbert. Hubbert pointed out that as petroleum is a finite resource, its production must inevitably pass through three key stages:

1. production begins at zero.
2. production increases until it reaches a peak which cannot be surpassed. This peak tends to occur at or around the point when 50 per cent of total petroleum reserves are depleted.
3. subsequent to this peak, production declines at an increasing rate, until finally the resource is completely depleted.

One of the most authoritative studies so far on peak oil and its timing was conducted by Dr. Colin Campbell and Jean Laherrere, leading oil industry experts, on behalf of the Geneva-based Petroconsultants. The Petroconsultants database, used by all international oil companies, is the most comprehensive for data on oil resources outside North America -- and is considered so significant that it is not in the public domain. Campbell and Laherrere concluded in their report, priced at $32,000 a copy and written for government and corporate insiders, that "the mid-point of ultimate conventional oil production would be reached by year 2000 and that decline would soon begin." They also projected that "production post-peak would halve about every 25 years, an exponential decline of 2.5 to 2.9% per annum." [7]

According to the Institute for Sustainability and Technology Policy at Murdoch University, this conclusion is probably the most accurate, based as it is on performance data from thousands of oil fields in 65 countries, including data on "virtually all discoveries, on production history by country, field, and company as well as key details of geology and geophysical surveys." Due to their unprecedented access to such data, Campbell and

Laherrere, unlike other oil industry commentators, are in “a unique position to sense the pulse of the petroleum industry, where it has come from and where it is going to. Their report pays rigorous attention to definitions and valid interpretation of statistics.” A review of the research by senior industry geologists in *Petroleum Review* indicated, apart from minor disagreement over the scope of remaining reserves, “general acceptance of the substance of their arguments; that the bulk of remaining discovery will be in ever smaller fields within established provinces.” [8]

Rapidly rising oil prices and growing reports of declining oil production corroborate the conclusion that the peak has already occurred, or will do, well within the dawn of the 21st century. London’s *Petroleum Review* published a study toward the end of 2004 concluding that in Indonesia, Gabon, and fifteen other oil-rich nations supplying about 30 percent of the world’s daily crude, oil production is declining by 5 percent a year -- double the rate of decline a year prior to the report. Chris Skrebowski, the *Review’s* editor and a former BP oil analyst, noted that: “Those producers still with expansion potential are having to work harder and harder just to make up for the accelerating losses of the large number that have clearly peaked and are now in continuous decline. Though largely unrecognized, [depletion] may be contributing to the rise in oil prices.” [9] Indeed, Chris Skrebowski reported in early 2005 that production in conventional oil reserves are already declining at about 4-6 per cent a year worldwide, including 18 large oil-producing countries, and 32 smaller ones. Denmark, Malaysia, Brunei, China, Mexico and India are due to peak in the next few years. [10]

According to an official report published by British Petroleum late last year, we have about 30 years before we peak. This is supposed to be an ‘optimistic’ assessment. Apart from the fact that this is hardly good news, it is a clearly politicized claim from an oil industry fighting to sustain its credibility as the Oil Age nears its demise. Colin Campbell, himself a former senior BP geologist, argues that the data shows we have less than 4 years; and in the meantime, former US government energy adviser Matt Simmons argues that we have most likely peaked years ago, but won’t know for sure until we start feeling the crunch within a few years.

3. Food Scarcity

The convergence of these two global crises, climate change and peak oil, threaten to undermine global food security over the next few years. The effects of this are already being felt.

At the British Association’s Festival of Science in Dublin in September 2005, US and UK scientists working at the Hadley Centre described how shifts in rain patterns and temperatures due to global warming could lead to a further 50 million people going hungry by conservative estimates. “If we accept that broadly 500 million people are at risk today, we expect that to increase by about 10 per cent by the middle part of this century.” [11]

Then toward the end of 2006, a study by Met Office’s Hadley Centre funded by the UK Department for Environment, Food and Rural Affairs, predicted that if global warming continues, drought that already threatens the lives of millions will spread across half the land surface of the Earth before 2100, and extreme drought making agriculture impossible will affect a third of the planet. The world-scale drought would undermine the ability to grow food, the ability to have a safe sanitation system, and the availability of water, pushing millions of people already struggling in conditions of dire deprivation over the precipice. [12]

The grim truth is that we are already pushing the limits on world food production within the existing structure of modern corporate agriculture. According to new maps released in December 2005 by scientists at the Centre for Sustainability and the Global Environment (SAGE) at the University of Wisconsin-Madison, Dr. Navin Ramankutty, “Except for Latin America and Africa, all the places in the world where we could grow crops are already being cultivated. The remaining places are either too cold or too dry to grow crops.” The maps thus show that the Earth is “rapidly running out of fertile land” and that “food production will soon be unable to keep up with global population growth.”

World food prediction probably peaked shortly before the new millennium. Lester Brown, a former international agricultural policy advisor for the US government who went on to found the World Watch Institute and Earth Policy Institute, reports that since world grain consumption has exceeded production since 2000, such that 2003 saw a deficit of 105 million tones. On that basis, Brown predicts a global grain deficit within the next few years. In 2003 he noted that "World grain harvests have fallen for four consecutive years and world grain stocks are at the lowest level in 30 years." This is partly why world grain prices are steadily rising.

This is not centrally about population, but about modern intensive agricultural methods as practiced by the globalized corporate food industry, which are simply unsustainable. US structural geologist Dave Allen Pfeiffer points out that while it takes 500 years to replace 1 inch of topsoil, in soil made susceptible by modern agriculture, erosion is reducing productivity up to 65 per cent each year. Former prairie lands, which constitute the bread basket of the United States, have lost one half of their topsoil after farming for about 100 years. This soil is eroding 30 times faster than the natural formation rate. Soil erosion and mineral depletion removes about $20 billion worth of plant nutrients from US agricultural soils every year. Every year in the US, more than 2 million acres of cropland are lost to erosion, salinization and water logging.

Already, populations in the South are suffering from the grim reality of these crises. Near the end of last year, The Guardian reported:

"Empty shelves in Caracas. Food riots in West Bengal and Mexico. Warnings of hunger in Jamaica, Nepal, the Philippines and sub-Saharan Africa. Soaring prices for basic foods are beginning to lead to political instability, with governments being forced to step in to artificially control the cost of bread, maize, rice and dairy products. Record world prices for most staple foods have led to 18% food price inflation in China, 13% in Indonesia and Pakistan, and 10% or more in Latin America, Russia and India, according to the UN Food and Agricultural Organisation (FAO). Wheat has doubled in price, maize is nearly 50% higher than a year ago and rice is 20% more expensive, says the UN. Next week the FAO is expected to say that global food reserves are at their lowest in 25 years and that prices will remain high for years." [13]

Peak food will be exacerbated beyond all proportion in the context of peak oil. Modern intensive agriculture that produces most of our food, is industrialized, mechanized. It needs oil. Without oil, modern agriculture dies, and so then will our ability to mass-produce food.

4. Economic Meltdown

According to the United Nations Development Programme, the gap between rich and poor nations *doubled* between 1960 and 1989. The rewards of globalization are increasingly "spread unequally and inequitably -- concentrating power and wealth in a select group of people, nations and corporations, marginalizing the others." Successive UN Human Development reports give us the broad contours of the manner in which this system inflicts protracted death-by-deprivation on the majority of the world's population. Of the 4 billion people who live in developing countries, almost a third -- about 1.3 billion people -- have no access to clean drinking water. A fifth of all children in the world receive an insufficient intake of calories and proteins. Around 2 billion people -- a third of the human race -- suffer from anaemia. 2.4 billion lack access to adequate sanitation. Thirty million people die of hunger every year, half of whom, UNICEF estimates, are children. Over 840 million suffer from chronic malnutrition, almost a sixth of the population. Three billion people -- that is half the world population -- are forced to survive on less than two dollars a day. Indeed, as Ignaciot Ramonet wrote several years ago in a famous editorial for *Le Monde*, of the 6 billion people in the world, only 500 million live in comfort -- that is approximately one-twelfth of the world population. *This leaves a massive 5.5 billion people living in need -- over five-sixth of the population*.

According to UNICEF, 30,000 children die each day due to poverty. And they “die quietly in some of the poorest villages on earth, far removed from the scrutiny and the conscience of the world. Being meek and weak in life makes these dying multitudes even more invisible in death.” That is about 210,000 children each week, or just under 11 million children under five years of age, each year. [14]

And what of neoliberal globalization? Have the policies advocated by the international financial institutions that govern the capitalist world system alleviated or exacerbated these despicable trends? Thanks to the Center for Economic and Policy Research (CEPR) in Washington DC, we now have some serious economic data by which to derive a plausible answer to these questions. Using IMF and World Bank data, the CEPR conducted a comprehensive study of economic growth and other indicators for the period between 1980 and 2005. The results are shocking. In the period hailed widely as neoliberal globalization’s golden age, the vast majority of the world’s economies have been systematically retarded. Mark Weisbrot et. al. argues that for economic growth and almost all of the other indicators, these 25 years have exhibited an empirically incontrovertible decline in progress as compared with the previous two decades [1960 - 1980] in growth, life expectancy, infant mortality and education. [15]

But the global economic system is not merely inherently unjust and unequal. It is also inherently unstable, and tends toward the generation of periodic crises, and as events of the last few months have shown, it is increasingly vulnerable to collapse. Financial institutions, corporate investors and even mainstream economists have been aware of the dangers for several years before the recent crisis that erupted from the depths of faultlines in the housing market. In March 2006, an unprecedented IMF report *Safeguarding Financial Stability* criticized the twin strategies of deregulation and liberalization, the staple policies of the global economy, as “the potential for fragility, instability, systemic risk, and adverse economic consequences”. Deregulation has caused “national financial systems [to] become increasingly vulnerable to increased systemic risk and to a growing number of financial crises.” [16]

In mid-2006, Stephen Roach, chief economist for Morgan Stanley, warned that the world “has done little to prepare itself for what could well be the next crisis.” About a month earlier, Roach had already warned that a major financial crisis seemed imminent and that the global institutions that could forestall it, including the IMF, the World Bank and other mechanisms of the international financial architecture, were utterly inadequate. [17]

Consider also the prescient analysis of UC Berkeley economist professor Brad DeLong, for instance, who in March 2007 argued that a global economic recession was in motion, principally due to three factors:

“1) A Federal Reserve that finds itself with less inflation-fighting credibility than it thought it had; 2) upward pressure on inflation from rising energy and, perhaps, import prices; and 3) millions of middle-class homeowners who for too long have treated their houses as gigantic ATMs, using home equity loans and refinancing to generate extra spending money.”

A crisis, he notes, is by no means guaranteed. But a key trigger could be the housing market -- the unprecedented use of home loans to squeeze cash out of equity, permitting middle-class consumers to spend well beyond their means.

“Someday this spending spree has to come to an end. If it comes to an end suddenly, at a time when the Federal Reserve has raised interest rates a little too much, then we have our recession… *Make no mistake about it: The US economy is close to the edge... What can be done to head off the danger? Unfortunately, very little. The bag of macroeconomic tricks is empty*.” [18]

And worse, in July 2006, came another high-level warning. Dr. David Martin, a former professor at the University of Virginia and founding CEO of M-CAM (a financial institution that is the international leader in intellectual property-based financial risk management) gave a speech at the Arlington Institute, a futurist think-tank in

Washington set up by a former US Department of Defence official John Peterson. Dr Martin warned his listeners that a collapse of the global banking system could be imminent as of January 2008, and that it would start with the housing crisis. Martin's warning may well serve not to be borne out so specifically – but clearly, over a year before the current economic crises, he was disturbingly on target. While US financiers may well be able to re-jig the system for a few more months, or perhaps even years, it is clear that we are fast approaching the end of the tunnel. [19]

The War Forward…?

All of these global crises are escalating on their own terms as a direct consequence of the very structure of the global social, political and economic system. Not only, by their own logic, do they threaten the future of humanity, they are currently intensifying and converging over the next few years. While their individual impacts are clearly devastating enough, their cumulative or simultaneous impact would be so devastating that it is perhaps beyond imagination.

This wide-ranging, but very brief, analysis of social and global systemic crises converging over the ensuing decades ultimately leads us to one major conclusion: the failure of the prevailing social, political and economic system. That we need an alternative is no longer disputable. It is a given, manifest reality.

What we need now is a civilizational paradigm shift. Not just a new economics, or new politics, or new social vision. We need a *whole new vision of life itself* to replace the dead, broken materialistic vision associated with the concurrent global imperial system. The good news is that the civilizational paradigm shift is not only happening now as I write – its seeds have already been planted. More on that in part 4, coming soon.

Notes:

[1]. Anjana Ahuja, 'It's hot, but don't blame the Sun,' The Times, September 25, 2006

[2]. Richard Girling, "To the ends of the Earth", Sunday Times Magazine (15 March 2007)

[3]. Fred Pearce, "Climate report 'was watered down'", New Scientist (8 March 2007) http://environment.newscientist.com/article/mg19325943.900. Also see George Monbiot, "The Real Climate Censorship", Guardian (10 April 2007) http://www.monbiot.com/archives/2007/04/10/the-real-climate-censorship/

[4]. Postnote, "Rapid Climate Change", (London: Parliamentary Office of Science and Technology, July 2005, No. 245) www.parliament.uk/parliamentary_offices/post/pubs2005.cfm

[5]. Geoffrey Lean, "Apocalypse Now: How Mankind is Sleepwalking to the End of the Earth" Independent (6 February 2005) http://news.independent.co.uk/world/environment/story.jsp?story=608209; Michael McCarthy, "Global warming: passing the 'tipping point'", Independent (11 February 2006) http://news.independent.co.uk/environment/article344690.ece.

[6]. Thomas Fuller, "For Asia, a vicious cycle of flood and drought", International Herald Tribune (1 November 2006) http://www.iht.com/articles/2006/11/01/news/water.php; Associated Press, "Warming report to warn of coming drought", (10 March 2007). Richard Black, "Climate water threat to millions", BBC News (20 October 2006) http://news.bbc.co.uk/2/hi/science/nature/6068348.stm.

[7]. Colin J. Campbell and J. H. Laherrere The World Oil Supply: 1930-2050 (Geneva: Petroconsultants, 1995) p. 19, 27.

[8]. B. J. Fleay, Climaxing Oil: How Will Transport Adapt? (Perth: Institute for Sustainability and Technology Policy, Murdoch University, 1999)

[9]. Paul Roberts, 'Over a Barrel', Mother Jones (November/December 2004)

[10]. John Vidal, 'The end of oil is closer than you think', The Guardian (21 April 2005)

[11]. Jonathan Amos, "Climate food crisis 'to deepen'", BBC News (5 September 2005)

[12]. Michael McCarthy, “The century of drought”, Independent (4 October 2006)
[13]. John Vidal, “Global food crisis looms as climate change and fuel shortages bite”, Guardian, 3 November 2007
[14]. State of the World’s Children, 2005, UNICEF (this cites the number as 10.6 million in 2003)
[15]. Mark Weisbrot, Dean Baker and David Rosnick, “The Scorecard on Development: 25 Years of Diminished Progress” (Washington DC: Center for Economic and Policy Research, September 2005) http://www.cepr.net/documents/publications/development_2005_09.pdf
[16]. Kern Alexander, Rahul Dhumale and John Eatwell, Global Governance of Financial Systems: The International Regulation of Systemic Risk (Oxford: Oxford University Press, 2005)
[17]. Stephen Roach, Global Economic Forum (New York: Morgan Stanley, 16 June 2006); Roach (New York: Global Economic Forum, 24 April 2006)
[18]. Brad DeLong, “The odds of economic meltdown”, UC Berkeley News Center (7 August 2006)
[19]. David Martin, “Assymetrical Collateral Damage: Basel II, the Mortgage House of Cards, and the Coming Economic Crisis”, Address to Artlington Institute (12 July 2006)] http://archive.arlingtoninstitute.org/library/ArlingtonInstituteAddressTranscript_eng.pdf

Source: