Overextension: our American way of life is not sustainable

Contributed by Chris Clugston
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Editor's Note: Chris Clugston is the kind of independent researcher and commentator who has the corporate and academic background to put numbers together. Fortunately, it is for the big picture. Few environmentalists are willing to tackle overpopulation, but Clugston actually quantifies it. -JL

Through our relentless pursuit of the American Dream and our blind adherence to our American way of life, we have become overextended -- we have exceeded America's capacity to sustainably support our existing population at our current standard of living. That is, the natural resources and economic resources required to support our ever-increasing consumption levels by our ever-expanding population are simply not available; nor is the capacity of our habitat sufficient to assimilate the ever-increasing amounts of waste disgorged by our ever-expanding population.

To compound our predicament, we have become "irreversibly" overextended -- we are past the point of "painless" return. We have so consistently and drastically overshot our sustainable consumption and population levels that returning to sustainable levels will necessarily involve significant lifestyle disruptions -- living standard degradation, population level reduction, and the possible loss of sovereignty; there can be no "soft landing."

Note: We are temporarily able to maintain prosperity and growth, despite our overextended condition, because the adverse effects associated with our continuously accumulating ecological and economic indiscretions -- which enable our current prosperity and growth -- have yet to be felt. We are essentially living on borrowed time.

Quantifying American Overextension

In order to fully appreciate the extent to which America is overextended and to understand why our American way of life is not sustainable, it is necessary to quantify American overextension; that is, to compute the difference between our current consumption and population levels, and the consumption and population levels at which America could subsist sustainably and self-sufficiently going forward into the future.

One method by which these metrics can be determined is through the use of "ecological footprint" data.

Ecological Footprint

The Global Footprint Network [GFN] defines ecological footprint as "a resource management tool that measures how much land and water area a human population requires to produce the resources it consumes and to absorb its wastes under prevailing technology." Thus, a country's ecological footprint equals the earth's surface area required to produce the resources consumed by its population and to assimilate the waste generated by its population, over the course of a year.

For example, by 2003 GFN calculations, Iraq had a per capita ecological footprint of 2.5 acres, China 4.0 acres, India 1.7 acres, UK 13.8 acres, world average 5.4 acres -- and America 24.0 acres.

This means that, on average, approximately 24 acres of planet earth's surface area are required to produce the resources consumed and to assimilate the waste generated by every American each year. Interestingly, America's "biocapacity", the domestic US surface area available to produce resources for consumption and to assimilate resulting waste, is only 11.6 acres per capita—leaving an "ecological deficit" of 12.4 acres per capita.

This means that over half of America's current subsistence -- production of the resources that we consume and assimilation of the waste that we generate -- is enabled through excessive consumption; that is, by "importing biocapacity, liquidating existing stocks of ecological capital, or allowing wastes to accumulate and ecosystems to degrade" [quote from GFN website].

In fact, America has been running increasingly large annual ecological deficits since the 1960s.

US Ecological Footprint

The ecological footprint analysis conducted by Redefining Progress [RP], an organization that defines ecological footprint in somewhat broader terms, is even more alarming. RP calculated America's 2001 per capita ecological footprint to be 267 acres and our per capita biocapacity to be 50 acres, leaving a per capita ecological deficit of 217 acres.

This indicates that over 80% of America's current subsistence is enabled by excessive consumption!

Sustainable US Consumption and Population Levels

How does ecological footprint data translate into sustainable US consumption levels and population levels? America's 2006 Gross Domestic Product (GDP) was approximately $13.2 trillion—which can be considered a financial proxy for our "current consumption level". At the end of 2006, America's population stood at approximately 300 million, which can be considered our "current population level".

Using GFN Data

According to the GFN ecological footprint analysis, America's biocapacity, our domestic surface area available to produce resources for consumption and to assimilate resulting waste, currently provides for only 48% of our actual annual subsistence; 52% of our annual subsistence is enabled by importing biocapacity, drawing down resource reserves, and degrading our habitat.

Therefore, in order to live sustainably and self-sufficiently within the constraints imposed by our domestic US biocapacity, while maintaining an average living standard roughly comparable to that which we enjoy today, we would have to reduce our aggregate annual consumption level and total population level by approximately 52%.

The result would be an American population of approximately 144 million people consuming at an aggregate annual rate of approximately $6.3 trillion. Alternatively, if we chose to maintain a US population of 300 million people, given a total GDP of $6.3 trillion, our average material standard of living (consumption level), as defined by annual per capita GDP, would decline from its current $44,000 to approximately $21,000.

Using RP Data

According to the RP ecological footprint analysis, America's domestic biocapacity currently provides for only 19% of our actual annual subsistence. In order to live sustainably and self-sufficiently in the RP case, while maintaining an average living standard comparable to that which we enjoy today, we would have to reduce our aggregate annual consumption level and total population level by approximately 81%.

The result in this case would be an American population of approximately 57 million people consuming at an aggregate annual rate of approximately $2.5 trillion. If we chose instead to maintain a US population of 300 million, given a total GDP of $2.5 trillion, our average standard of living (consumption level), as defined by annual per capita GDP, would decline from $44,000 to approximately $8,300.

The Real "Inconvenient Truth":
America is Irreversibly Overextended

By either account, America is severely -- irreversibly -- overextended. As a point of reference, the biocapacity that would be required to enable the entire world's population to consume resources and to generate waste on the same level as America's population is equivalent to six earths! [Data Source: Redefining Progress]

Yet we remain steadfast in our refusal to acknowledge our overextended condition, its unsustainable nature, and its inevitable result -- a contraction, most probably apocalyptic, characterized by catastrophic living standard degradation

and population level reduction.

We are the Problem

As more Americans come to realize that there is something terribly wrong with the American status quo, we tend to project rather than accept blame for our predicament. We attempt to blame "the government" or "big business" for the unfortunate but inevitable consequences associated with our relentless pursuit of the American Dream.

This convenient but erroneous line of reasoning creates the mistaken impression that we, the American public, are the innocent victims of dysfunctional policies and initiatives perpetrated on us by external forces beyond our control -- it's "them", not "us". Unfortunately, this misguided perspective serves only to obscure the real cause associated with our current dilemma, and to totally undermine effective solutions.

We must understand that our governments and corporations are not responsible for the fact that we have adopted an unsustainable lifestyle paradigm, our American way of life, as our means to pursue the illusory Amerikan Dream. Politicians and business executives are merely our elected representatives -- we elect politicians with our votes and business executives with our dollars.

If truth, our representatives are doing exactly what we have elected them to do; they are attempting to maintain at any cost our American way of life -- our distorted "reality" within which we can continue to live beyond our means and perpetuate our inflated lifestyles. And, they will do whatever they can on our behalf, as we do individually, to achieve this goal.

We are not the innocent victims of deranged politicians and corporate executives and their arbitrarily imposed policies and initiatives; we are the beneficiaries of their ecological and economic indiscretions on our behalf. And we have chosen these people to represent us precisely because they will continue to commit such indiscretions on our behalf.

What we have here is a symbiotic relationship between a self-absorbed, self-entitled American public and our political and economic representatives, to whom we have ascribed the privileged status of "leaders". We have willingly abdicated total responsibility for our very existence at the societal level to our leaders, in exchange for "perpetual entitlement" to our American way of life at the individual level.

The Solution is "Unacceptable"

If we are to avert catastrophic disaster, we must fundamentally alter our existing orientation and dysfunctional behavior -- from thoughtlessly exploiting our natural and economic resources, to judiciously consuming these resources in a manner that will ensure our long-term survival.

We must all reject our American way of life, living unsustainably beyond our means -- ecologically and economically, individually and societally -- for a lifestyle in which we choose to live sustainably within our means. That is, we must drastically reduce our consumption level and modify our consumption mix, through a combination of population and material living standard reduction -- to an aggregate consumption level and mix that are consistent with US biocapacity. At that point, our generation and future generations will be able to subsist indefinitely on renewable, domestically-available, natural and economic resources.

Not likely…

"The American way of life is not negotiable."
(President George H. W. Bush, Earth Summit, Rio de Janeiro, 1992)

…a statement that is unthinkingly endorsed -- implicitly, if not explicitly -- by nearly all Americans.

We all claim to be willing to "do our share" -- as long as it doesn't negatively impact our material standard of living -- our inflated American lifestyles -- our American way of life. But it must -- significantly.

The Consequences Are Inescapable

As long as we adhere blindly to our American way of life and choose to live unsustainably beyond our means, we cannot possibly take meaningful action to terminate our dysfunctional behavior—to cease the ecological and economic indiscretions that have caused us to become irreversibly overextended.

Barring an almost inconceivable series of serendipitous events -- unforeseen technological breakthroughs, major

efficiency improvements, miraculous discoveries, and just plain luck -- we will reach an ecological or economic limit that will trigger a debilitating contraction in the not-too-distant future -- possibly within 5 years, probably within 15 years, and almost certainly within 25 years.

"The ‘developed’ nations have been widely regarded as previews of the future condition of the ‘underdeveloped’ countries. It would have been more accurate to reverse the picture…" (William Catton, Jr., "Overshoot", pg. 175, 1982)

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The body of Chris Clugston's work is at wakeupamerika.com. Prior to founding Wake Up Amerika! Chris spent over 30 years working with information technology sector companies in marketing, sales, finance, M&A, and general management-the last twenty as a corporate chief executive and management consultant. He received an AB/Political Science, Magna Cum Laude and Phi Beta Kappa from Penn State University, and an MBA/Finance with High Distinction from Temple University in Philadelphia, PA.
The Oil Drum and Energy Bulletin recently posted his paper "Global Peak Energy -- Implications for Future Populations"

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footprintnetwork.org
Redefining Progress

rprogress.org