

ENOUGH?

I. OVERVIEW AND EXECUTIVE SUMMARY

THE QUESTION

The question addressed in this Perspective is:

WILL THERE BE ‘ENOUGH’ RESOURCES ON THE PLANET TO SUPPORT THE DRAMATICALLY EXPANDING EXPECTATIONS OF CITIZENS WHEN THERE ARE 9 BILLION HUMANS IN 2050?

There are new, as well as recalibrated, lenses through which to examine this question.

The prisms explored in this multi-chapter Perspective are:

- A. The expectations of 500 million citizens in North Africa and the Middle East on parade in The Arab Spring,**
- B. The growing expectations of half the population of the planet fueled by discovery of new energy reserves controlled by Brazil and the recent – and potentially dramatic future – fluctuations in economic well being of citizens in India and China,**
- C. The stark reminders of the TOTAL cost of squeezing energy from far below the ocean floor in the Gulf of Mexico, from Marcellus Shale in Appalachia, under mountain tops in West Virginia, from oil sands in Alberta and from inside the nuclei of radioactive atoms in Japan,**
- D. Indisputable evidence of profound changes in the global climate.**
- E. The ‘aftermath’ (reprise?) of The Great Recession.**
- F. New projections by the UN indicate that the population will not ‘peak’ at 9 Billion in 2050 as previously anticipated. Continued population growth in Africa will push to projected peak to 10.1 Billion in 2100.**

These lenses portray The New Reality.

THE NEW REALITY

Before going on, let us be clear:

The components of The New Reality are just that, ‘new.’ The facts and perceptions are changing daily. This is the third draft of a SYNERGY Perspective that will continue to evolve. The Beta 3 version is circulated at this time because without understanding the current trajectory – even though it is subject to change – it is impossible to shape a sustainable and functional future.

Chapter Two of ENOUGH? provides a sketch of the six elements of The New Reality. The following is a brief summary:

A. **The Arab Spring.** The Arab Spring is a dramatic new and evolving reality explored at length in Chapters 3 and 4 of this Perspective. The Urban, educated, aware and CONNECTED citizens who are driving the Arab ‘Spring’ have the power to change ‘everything’ and have already shattered the status quo for 500 million humans in their Regions.

B. **Growing Citizen Expectations.** The growing expectations of citizens in Brazil, India and China (comprising nearly half the world population) have come into sharp focus over the past half decade. During this same time frame the other half of the planet’s population has experienced – and is still experiencing – The Great Recession while the economies of Brazil, India and China have expanded. Recently the future trajectory of both China and India have become much less predictable but the citizen expectations remain high.

C. **Unsustainable Consumption.** The cumulative impact of unsustainable consumption of both Renewable and NonRenewable resources to support Industrialization and Urbanization of the human population has been on the horizon since the end of the Long Depression in 1896. However, for the past 38 years there has been no excuse for informed citizens to not prepare for the Fundamental Transformations necessary to bring consumption into Balance with resources.

D. **Climate Change.** Humans and their Organizations have wasted over 60 years discussing the cause of, and the rate of, the planet’s change in climate. They have done almost nothing to prepare for, much less ameliorate the current trajectory. The disaggregation of settlement patterns and shoddy construction have made humans ever more vulnerable to natural events. Regardless of cause (or even the direction) of climate change, the actions needed to address the impact of climate changes – variation of sea level, violent weather, modifications of the fresh water cycle – are the SAME actions that would be prudent if the humans WERE the cause and the direction was rising temperatures.

As SYNERGY has noted frequently:

For 9.1 Billion humans to survive on the planet, Fundamental Transformations are necessary. These ARE THE SAME Fundamental Transformations that would be required if the climate WAS changing at a rapid rate and humans WERE the cause.

Implementing these Fundamental Transformations to shrink human's ecological footprint is imperative.

E. **The Great Recession.** The Great Recession is over! Long live The Great Recession! For many citizens in the US and other nation-states, The Great Recession has not ended or even ebbed. Will there be a double dip? Is The Great Recession – as predicted by some economist in 2008 – a reprise of The Long Depression (1873 to 1896)? At the end of The Long Depression there appeared to be an 'infinite' resource base. Resources were 'almost' infinite at the per capita rate of consumption in 1896 given the population and human expectations at the end of the 19th century.

There was a dramatic WIDENING of the Wealth Gulf in the US DURING The Great Recession and a 'jobless recovery' to date. What will be the impact of the majority of Household's inability to make ends meet due to higher and higher costs of goods (including water, food, energy and scarce materials) and Services?

F. **Population.** Like climate change, the growth of the human population has been ignored by most. Even worse, it has been cheered by some who see a growing population as an expansion of 'the market,' a driver of 'growth,' a source of talent educated in other Regions and a provider of cheap labor. Geometric population growth from 1950 (2.5 billion) to 2010 (6.7 billion) is a fundamentally unsustainable trend. Population growth cannot be dramatically AND peaceably changed by Agency, Enterprise or Institution action. Population stabilization requires a recognition by the majority of households of their individual and collective best interests.

SHAPING THE FUTURE

A clear image of the shape of the future can be seen in the context of The New Reality:

Over half the population of the planet is now demanding MORE and planning to consume MORE of already scarce, depleted and exhausted resources.

The resources in question are not luxuries, they are water, food, energy and the material necessary to maintain human civilization as it has evolved to date.

The resources upon which a 'GROWTH ECONOMY' (aka, Mass OverConsumption) depends are scarce, depleted and exhausted.

Due to escalating demand that characterizes The New Reality, there is no alternative to a continuing escalation of the real cost of scarce, depleted and exhausted resources.

In the context of The New Reality, humans who desire to maintain a complex, sophisticated and technology-rich civilization face stark questions:

How will these rapidly rising costs be paid?

This is a profoundly important question since in many Regions and some nation-states including the US, citizens and their Organizations have refused to pay the full cost of maintaining the complex and technologically-dependent civilization that has evolved to date.

Citizens and their Organizations have failed to address the full cost of current society even when:

- **Citizens and their Organizations were able to consume far more than their share of planet's natural capital, especially cheap energy,**
- **The deterioration of man made and natural infrastructure that support human society was obvious, and**
- **There was a dramatically widening Wealth Gulf between the very rich and everyone else.**

These contextual facts led to critical questions:

Will resources be fairly allocated in the future?

Will unfair and inequitable resource allocations lead to war, genocide and an end of democracy and markets as strategies to allocate resources?

Over the past 13,000 years, humans have not amassed a good record on fairly sharing resources even when there were effectively 'unlimited' resources and a there was fraction of the current and projected demand / population.

Will enough citizens embrace the absolute necessity of Fundamental Transformations of settlement patterns, governance structure and economic systems to bring consumption into Balance with resources?

Most important of all: Can humans reach a consensus on action while there are still enough resources to implement the changes necessary to achieve a sustainable trajectory for the civilization that has evolved to this time?

THE ANATOMY OF ENOUGH?

ENOUGH? is a multi-chapter Perspective that examines existing conditions and concludes:

- **In the context of a growing population and dramatically growing expectations, there will clearly NOT be ENOUGH at anything approaching the current rate of resource consumption.**
- **Achieving Balance of consumption and resources requires dramatic, Fundamental Transformations.**

Billions of humans, 500 million of them in North Africa and the Middle East, who up until now have been forced to consume far less than their fair share and far less than those at the top of the Ziggurat in their Regions, in their nation-states and on their continent are now in a position to change the fundamental parameters of consumption.

The reasons why Fundamental Transformation is imperative are spelled out in Chapter Eight – The Bottom Line.

As documented in *THE SHAPE OF THE FUTURE* and *TRILO-G*, the first and most important step on the path to a sustainable trajectory for civilization is to evolve the functional human settlement patterns for the growing majority of humans that live in Urban Households.

In developed nation-states such as the US and the EU, 95 percent of the population now rely on Urban activities for their livelihood. Those Regions and nation-states must take the lead in forging a sustainable trajectory that brings consumption into Balance with resources.

It is the position of SYNERGY that The New Reality will end the Golden Age of Gluttony for Households, Agencies, Enterprises and Institutions which have enjoyed their existence at the top of the global Ziggurat. The Golden Age of Gluttony must end for those at the top of the Ziggurat in every nation-state, every MegaRegion and every Region. The Golden Age of Gluttony is also known as The Era of Mass OverConsumption.

In light of The New Reality citizens must finally acknowledge the finite limits of the planet if they are to achieve a sustainable trajectory for human civilization.

SYNERGY's position is that in light of The New Reality:

- Citizens of the US – and the rest of the 'developed' Regions on the planet – can and MUST cut per capita consumption AND reverse population growth.

- At the same time citizens can IMPROVE the quality of their lives through the evolution of functional and sustainable human settlement patterns and strategies that Balance competition and consumption with cooperation and conservation.

Actions to achieve a sustainable trajectory for human civilization cannot be dictated from the top down.

The imperative is to evolve **Balance, Critical Mass** and **Resiliency** at the Alpha Cluster scale, at the Alpha Neighborhood scale and the Alpha Village scale. These transformations are necessary if humans are to achieve **Balance, Critical Mass** and **Resiliency** at the Alpha Community scale and beyond,

Balance, Critical Mass and **Resiliency** at the Alpha Community scale is essential to evolve sustainability at the SubRegional and New Urban Region scales AND to evolve Urban Support Regions into New Urban Regions. See topics addressed in the books listed on the *PUBLICATIONS* page and in documents linked from the *CURRENT PERSPECTIVES* page at www.emrisse.com

DRAFT CHAPTER SUMMARY

The Beta 3 version of ENOUGH? is presented in eight chapter as well as notes on the focus of future chapters, plus an APPENDIX and draft End Notes.

Chapter One (page 8.) provides A Brief Overview of Human Consumption Trends that impact the future trajectory of civilization in the context of The New Reality.

Chapter Two (page 12.) is A Sketch of The New Reality:

Chapter Three (page 19.) provides insight into The Drivers of Expanded Consumption Due to The Arab Spring.

Chapter Four (page 22) examines The Relative Importance of The Arab Spring as compared to other landmark events that have occurred since The Great Depression.

Chapter Five (page 26) considers The Quantification of 'ENOUGH' / NOT ENOUGH and the changes that are likely when there is NOT ENOUGH.

Chapter Six (page 30) provides a brief Anatomy of Fundamental Transformations in human society.

Chapter Seven (page 35) surveys the Panglossian Fantasies that posit an Endless Cornucopia of ‘Growth’ and Prosperity driven based Technology and Innovation without regard to the finite limit on the planets total resources.

Chapter Eight (page 57) puts forth the summation of ENOUGH? to date and articulates The Bottom Line.

The eight Beta 3 chapters of ENOUGH? will be expanded and modified to reflect events and response to the Beta 3 Draft.

Future chapters of ENOUGH? will address topics noted in Rough Draft Notes on Future Chapters that follows Beta 3 Chapter Seven.

NB: ENOUGH? is evolving in stages with later drafts reflecting constructive input and feedback on prior drafts. The Beta 3 version is substantially revised from the two earlier versions.

Those wishing to make comments on this draft, or review drafts of future chapters of Beta 4 prior to publication, may contact SYNERGY via the response form on the *CONTACT* page at www.emrisse.com

For definitions of words that may appear to have ‘irregular Capitalization’ in this Perspective see GLOSSARY on the *CURRENT RESOURCES* page at www.emrisse.com. Also see **TRILO-G** Chapter 26 – Gibberish: The Vocabulary of Babel and "The New Urban Region Conceptual Framework" in Chapter 49 of **TRILO-G**.

CHAPTER ONE – A BRIEF OVERVIEW OF HUMAN CONSUMPTION TRENDS

The Beta 3 version of Chapter One provides a brief overview of human consumption trends that impact the future trajectory of civilization in the context of The New Reality.

Professor Albert Bartlett of the University of Colorado in “The Most Important Video You’ll Ever See” states:

“The greatest shortcoming of the human race is failure to understand the exponential function”

Professor Bartlett’s focus is on population growth, energy consumption and resource depletion. The failure to fathom the exponential function also fogs citizen understanding of functional and dysfunctional human settlement patterns. See “JUST THE FACTS – THE FACTS CITIZENS NEED TO UNDERSTAND...” on the *CURRENT PERSPECTIVES* page at www.emrisse.com.

Population, per capita consumption and Urbanization have been growing exponentially for the past 250 years.

Population. Human population growth over the past 250 years IS the classic hockey stick graph of unsustainable growth. The last sixty years have been profoundly dramatic. The number of humans has grown from 2.5 billion in 1950 to 6.7 billion in 2010. The graphic that is provided in “Toward 10 Billion” in the 3 May 2011 *The New York Times* is mind boggling. The story focuses on the new UN forecast of 10.1 billion humans on the planet by 2100 noted in Chapter 2.

Per Capita Consumption. Population growth by itself would exhaust the resources of the planet at 1950 per capita consumption rates but in addition, the per capita consumption has been rising at the a rate that compounds the unsustainability of the population growth.

Urbanization The human population is rapidly Urbanizing. Over half to total human population on the planet is now Urban. Just 200 years ago, Urban citizens made up less than 10 percent of the population of the most advanced Regions and nation-states. Urban citizens made up about five percent of the population of the US. Now those percentages in the most advanced Regions are reversed – 95 percent Urban, 5 percent Non Urban.

On a per capita basis Urban citizens DIRECTLY AND INDIRECTLY consume far more resources than subsistence farmers who made up over 95 percent of the human population just 200 years ago.

The Last Six Decades. Over the past six decades the human population as well as per capita consumption of both Renewable and NonRenewable resources have grown dramatically. As

noted above, the world population grew from around 2.5 Billion in 1950 to 6.5 Billion in 2010. There is no question that both population and consumption are growing at unsustainable rates. **See End Note One**

Since World War II, Urban regions in ‘developing’ (aka, third world or ‘transitional’) nation-states have steadily increased population AND per capita consumption.

During this period, some ‘developed’ nation-states have reversed population growth and others have reduced the rate of growth.

In the US, the population growth has NOT slowed due to immigration. This immigration has been due to:

- The attraction of an unsustainable form of ‘prosperity’ that relies on Mass OverConsumption, and
- The actions by those who sought cheap labor, those who mined other Regions intellectual capital and by failure to enforce existing laws

The US is NOT YET one of those nation-states that is decreasing its population.

After the Wake Up Call. Since the OPEC Oil Embargo in 1973, the Regions and MegaRegions in the US, the EU, the Asian Tigers and some other nation-states have implemented MODEST transformations that have resulted in a rise in the ‘traditional parameters’ of ‘standards of living’ without DIRECTLY increasing per capita consumption of nonrenewable resources WITHIN those Urban Regions. However, unsupportable levels of consumption have continued.

In addition, INDIRECT consumption (the global ‘footprint’ of the residents living in ‘developed’ Regions) has grown exponentially. This has been due to reliance on importing other Region’s resources (including educated citizens) and to shifting manufacturing and processing to Regions with less expensive labor and material.

During the same time period (the mid 70s to the present), the Wealth Gulf / Consumption Gap between those at the top of the Regional and nation-state Ziggurats and those in the middle – AND ESPECIALLY THOSE IN THE BOTTOM HALF – of the Ziggurats has increased dramatically in many of the most prosperous Regions, especially in the US. **See End Note Two**

This is NOT a New Story. From the perspective of ENOUGH?, the most important trend is one dating from the 15th century. The most advanced (most ‘developed’) Regions / nation-states have been consuming far more than their ‘fair share’ of the planets resources for 500 years. This trend started with the colonial / imperialist empires access to ‘the new world,’ Africa and Asia and it

continues to this day. While inequitable, this imbalance was not a problem of global dimension until the population and per capita consumption rates began to accelerate over the past 200 years and especially the last 60 years.

There has been a vastly accelerated RATE of total resource consumption due to exponential growth of population, per capita consumption and Urbanization.

There has also been a shift from raw material imports to processed, manufactured and assembled products. This has resulted in a hollowing-out of the Import Replacement capacity of the developed Regions and a growing demand for Urban goods and services by the 'developing' Regions. This is the underbelly of 'globalization,' the downside of a 'Flat Earth.' It also resulted in the Regions with low wages accelerating the consumption of their own resources to process and manufacture goods for export to the more developed Regions.

Where do these consumption trends leave humans?

In Summary:

For 500 years, the rich Regions of the planet have been living off the entire planets Natural Capital.

For 200 years, population, per capita consumption and Urbanization have accelerated exponentially.

Over the past 60 years – the Golden Age of Gluttony or The Era of Mass OverConsumption – the rate of consumption has increased even more dramatically.

For example, the US has about five percent of the worlds population but uses between twenty and thirty percent of the planets consumed resources on an annual basis. Many of those resources are becoming scarce, depleted and exhausted.

This is, by definition an unsustainable trajectory, especially in the context of The New Reality, the subject of Chapter Two.

The US Policies and Goals. Unbounded consumption of Natural Capital to achieve economic 'growth' has been the policy and goal of the US for 236 years and of British, French and Spanish colonies for 275 years before that.

Natural resource exploitation to support citizen well-being became the explicit nation-state policy and goal of the US in 1828. Resource consumption accelerated after the Civil War and went into Overdrive in the late 1890s after The Long Depression (1873 to 1896). The Overdrive period (profiled by Thurston Veblen as 'conspicuous consumption') included WW I and the Roaring 20s with 'worlds fairs' showcasing 'progress through consumption.'

After The Great Depression and WW II (and in spite of the scolding of Vance Packard, John Kenneth Galbraith and others) citizen consumption shifted to HyperDrive – the Mass OverConsumption over the past 60 years.

Continuing these policies, programs and goals will drive economic, social and physical indicators of human health, safety and welfare into ever more negative trajectories. Within the context of global resources explored in ENOUGH? – The New Reality – these policies and goals are suicidal.

Gaming Globalization. In spite of The New Reality, as citizens and their Organizations attempt to exit The Great Recession, the most frequently stated goal of Agency (federal, state and municipal) policy as a way to improve the health, safety and welfare of citizens is to become ‘more competitive’ and more consumptive in the global marketplace.

The most benign of these strategies is to increase exports. That is not possible if the feedstocks for these exports depend on resources that are scarce, depleted, exhausted and ever more expensive. The more intelligent strategy is import replacement at all scales from the Cluster to the continent.

Revising Agency policies, programs and projects so as to position citizens of the US to get a BIGGER share of the planets finite resources by gaming ‘globalization’ is a dead end. The planets resources are finite and taking more only accelerates the rise in total cost.

It would be just as wise a national policy to position citizens for the ‘opening’ of the Louisiana Purchase to settlement by herding ‘the Indians’ into Oklahoma Territory. That was 180 years ago’s agenda when resources ‘seemed’ unlimited – and they almost were, given the total population, the per capita consumption and the pattern and density of Urbanization.

By 2011 it should be clear that the US and its MegaRegions and Regions cannot continue to expand GDP via the Mass OverConsumption. . See again *DeGrowth – Shrinking to Survive Then Prosper* linked from the *CURRENT PERSPECTIVES* page at www.emrisse.com and A NEW METRIC FOR CITIZEN WELL BEING – PART FIVE OF *TRILO-G*.

Attempting to compete more forcefully for more and more of the resource base when there will be less and less of that resource is SUICIDAL due to the relationships articulated in Chapter Eight The Bottom Line.

Working harder to live better – with happier and safer citizens – while consuming LESS is the only path to a sustainable future.

The critical question remains:

**Even with true conservative policies and true conservation, will there be
'ENOUGH' resources to meet these exploding expectations? See End Note Three.**

The answer depends on how fast citizens come to support Fundamental Transformations of 1) Urban settlement patterns, 2) governance structure and 3) economic systems. Citizens must realign the Four New Estates – Agencies, Enterprise, Institutions and Citizens / Households – in order to implement Fundamental Transformation of Agency policies, programs and controls to achieve new goals and objectives.

CHAPTER TWO – A SKETCH OF THE NEW REALITY

Beta 3 Chapter Two provides a brief introduction to the anatomy of the New Reality:

- A. **The Arab Spring in North Africa and the Middle East.** The newest and most dramatic element of The New Reality is The Arab Spring. **See End Note Four**

About 500-million citizens in North Africa and the Middle East are in some stage of revolt to end corruption, injustice and voicelessness. They also resent the gap between their quality of life / level of consumption and that of their ‘leaders.’ They expect to secure MORE of the scarce, depleted and exhausted resources which the rich Regions have been consuming at an accelerating rate for centuries.

Many of the Regions / nation-states in North Africa and the Middle East have valuable strategic resources, especially petroleum. When these resources are more fairly allocated the citizens will be able to afford to pay MORE per capita for consumption of scarce, depleted and exhausted resources. That will also mean MORE total consumption..

In a context of finite global resources, increased consumption profiled in Chapter One will raise the cost of water, food, shelter, energy and all the other necessities and luxuries of Urban life.

With a total population over 500 million citizens, North Africa and the Middle East exceed the consumption potential of the US or the EU. The per capita consumption of most resources by the entire population of these Regions and nation-states is now far lower than the US and the EU. However, Saudi Arabia, the United Arab Emirates and other ‘Gulf States’ as well as the ‘leaders’ of most of the other Regions have demonstrated that when resources are available, the cultures of North Africa and the Middle East can squander wealth with the most conspicuously consumptive. Dubai is the poster child.

In addition to the 20 odd nation-states that lie within the triangle formed by Morocco, Oman and Syria that were NOT in some state of conflict BEFORE the Arab Spring, there are four just to the East – Iraq, Iran, Afghanistan and Pakistan – where conflict has been relatively constant for 50 years. In Iraq, Afghanistan and parts of Pakistan there has been ‘war’ for a decade. This area could spring into conflicts that have the same root causes as the disruptions in the Arab Spring nation-states. If a functional governance structure evolved in any of these proto nation-states the citizen would also demand MORE. See Chapter Eight – The Bottom Line.

There is no way to foretell the outcome of The Arab Spring, in the short term or the long term. The tide shifts from day to day. One day there is encouraging news from Yemen, the next day discouraging news. One day there is news of fundamental reforms promised in Jordan, the next day a set back in Syria or Libya.

The rapid change in Tunisia and Egypt have been followed by less ‘progress’ in those nation-states and in others across the Arab World. There have been setbacks in Egypt. Some revolts have been crushed for now. Groups in Egypt have been working to foster regime change for years but who would have thought that Libya or Syria would revolt? See End Note **Five**.

The overarching reality is that once the genie is out of the bottle it is not likely to be put back.

“Things cannot go back to the way they were before. We’ve seen a fundamental shift. People have seen freedom, and there is no turning back.” See “Blooms of Arab Spring fading: Prolonged instability foreseen in roiling.” Middle East *WaPo* 13 may 11.

In 1968 the First Prague Spring was crushed. The Second Prague Spring came twenty years later. As documented in Chapter Three, the process of wider citizen participation is similar to the process of Urbanization transforming the planets human population.

No despot or oligarchy has been able to reverse the process. None will until the planets resources are exhausted. Then daemons like Pol Pot could try again to turn back Urbanization when there are no alternatives to which citizens can turn.

Even if the forces driving of The Arab Spring outlined in Chapter Three result in less than democratic governance and less than a fair allocation of the total costs and benefits of civilization, there will be a more fair governance structure and a more fair allocation of resources or there will be continuing conflict until there are not resources.

The US is in a quagmire with respect to The Arab Spring. President Barack Obama’s 19 May 2011 speech and the reaction to this speech documents the profound conundrums presented by 200 years of duplicitous ‘foreign relations’ of the US and its European allies.

The support of dictators and despots in the Caribbean, Mexico, Central American and South America since the War of 1812 to serve the interests of exploitation, by Enterprises and Agencies has left an indelible mark of the Western Hemisphere.

The same has been true for the US relations with the nation-states of the North Africa and Middle East driven by petroleum politics. Great Britain, France, Italy and Belgium are primarily responsible for drawing lines in the sand and setting up pseudo-nation-states.

The insatiable appetite for petroleum to support dysfunctional settlement patterns has left the US and its ‘developed’ allies with conflicting and counterproductive commitments across North Africa and the Middle East and limits the ability of the US to support and foster the evolution of functional governance.

Chapter Three further articulate the forces driving The Arab Spring. In the meantime, in addition to decades long turmoil in Iraq, Iran, Afghanistan and Pakistan there are rumbling from

elsewhere in Asia. The recent elections in Thailand, the crackdown in Malaysia, the continuing decent of Burma and the struggles the former components of the Soviet Union – from Belarus to Turkmenistan and Kazakhstan reverberate with variations on the themes of The Arab Spring.

Then there is the instability of Portugal, Ireland, Greece, Spain and now Italy...
AND then there is the other half of the world's population.

B. The Growing Expectations of Citizens in Brazil, India and China.

Brazil. Brazil is the sixth most populous nation-state on the planet. Brazilians have recently elected a new president who is committed to raising from 14 to 16 million citizens (reports differ as to the number in abject poverty) by expanding their consumption of the resources others have been enjoying for decades in Brazil and elsewhere.

Newly discovered oil resources off the coast of Brazil will make a down payment on this expanded consumption. It is clear that all Brazilians will expect more and consume more. Already, agricultural area in the Amazon is being expanded to supply more animal protein for citizens. This is also a trend in China where agricultural imports from the US confound US policy and objectives.

In a context of finite global resources, increased consumption will raise the cost of water, food, shelter, energy and all the other necessities and luxuries of Urban life.
See Chapter Eight – The Bottom Line.

India. Based on the current trajectory India will become the most populous nation-state on the planet in the near future. In spite of efforts to control the birthrate, India grew by an astounding 17 percent over the past decade.

In India there have recently been riots over government corruption and inequitable distribution of resources among the nearly 1 billion existing citizens. Unlike North Africa, the Middle East and Brazil, India does not have petroleum reserves but does have educated citizens and technology – including nuclear technology – to secure energy, water, food, shelter, and all the other necessities and luxuries of Urban life. Further, India is cultivating the support of other poor nation-states to form a powerful block in international Agencies and Institutions. Getting a more fair share of the planet's resources is one very one of those nation-states agenda.

In a context of finite global resources, increased consumption will raise the cost of these resources. See Chapter Eight – The Bottom Line.

China. China is currently the most populous nation-state on the planet. The new (12th) 'Five Year Plan' focuses for the first time specifically on raising the quality of life for those at the BOTTOM of the Ziggurat. That means converting trillions of dollars of foreign securities into more consumption.

But there are cracks appearing in China's economic 'miracle.' Last year in response to the decline in exports 20 million factory workers were laid off – “State-controlled union federation is making attempts to ‘win back the trust of workers’ after rash of unrest.” *WaPo* 29 April 2011. *WaPo* has recently (5 July 2011) published pictures of Urban residents begging for money to return to their villages.

Shanghai is rationing electricity due to energy shortages. Inflation is up. The population control measures are starting to take effect and the workforce growth is over and the population is starting age as it is in other industrialized societies.

There are increasing reports of unrest. “China's Riot Town: ‘No one else is listening’ from Xintang. Citizens are starting to pay attention to the fact that the state owned tobacco monopoly makes \$93 billion a year and is not complying with health laws. Half the adult population smokes and the cost of health care will rise. On who's side is the party after all?

The party propaganda machine is cranking up ‘patriotism’ focusing on the 90th anniversary of party. There is frenetic activity focused on ‘happiness,’ a reflection of the new Five Year Plan and the need to distract attention from the rumors of a ‘jasmine’ revolution that is a constant undercurrent in the mini-blogs that are now source of communication that ‘the authorities’ cannot control.

The biggest problem may be what *The Australian* suggests “The great property bubble of China may be popping.” 14 June 2011. Business Insider in mid June published astounding air photos of China's ‘Ghost Cities.” According to published reports there are 64 million empty, speculatively owned ‘luxury apartments’ in China and well as completely empty malls and office buildings. The High Speed Rail system has opened but there is little demand.

This appears to be a huge mismatch between demand and supply. China has demonstrated by the construction of infrastructure and new Urban agglomerations that it can build Potemkin Villages of almost unbelievable scale.

Acting to corner the rare earths market and state-sponsored industrial espionage suggest the leadership intends to maintain an anti-democratic one-party monopoly. This may blow up in their faces but they are riding a tiger with no exit ramp except into chaos. Whatever the future holds, the expectations that have been fostered in the citizen will not go away without conflict.

With its economic and military leverage China aspires to secure water, food, shelter, energy and all the other necessities and luxuries of Urban life. In a context of finite global resources, increased consumption will raise the cost of these resources. See Chapter Eight – The Bottom Line.

C. The Growing Cost of Resource Extraction.

Beyond the growing demand from regions with over half the total population on the planet, there is the issue of supply. The BP / Macondo deep-water-oil and gas-blowout as well as the continuing conflict over mountain top removal, oil sands extraction and hydrofracking for Marcellus Shale gas makes it very clear that the cost of squeezing more resources from difficult locations will be dangerous and costly.

That reality is underscored by the earthquake / tsunami nuclear accident in Japan that has fundamentally changed the future of nuclear power generation. Technologically oriented Germany is phasing out of nuclear energy. At a minimum the cost of future nuclear facilities will be far higher.

A future of limited resources came into sharp focus via the 1973 OPEC oil embargo but that event has been ignored due to Panglossian exaltation over 'growth' and Mass OverConsumption-driven 'prosperity' the focus of Chapter Five. This myopic euphoria serves the short term goals of the leaders of Agencies, Enterprises and Institutions but not the interests of citizens and their Households. The current trajectory is ignored except when dramatic events reinforce the stark reality of finite limits.

Even more important is the fact that it is not just petroleum or just energy that is going to be more expensive. Fresh water is of growing concern. For a sobering assessment see "Good. Until the last drop" by Fred Pearce in the 10 July 2011 *WaPo*. This is a review of three recent books on the future of water supply.

D. Climate Change.

It was clear to some 60 years ago that the melting of ice fields remaining from the last ice age and of the last remnants of glaciers built up during the Little Ice Age suggested that the climate was changing.

As noted in the introduction, humans and their Organizations have wasted the last six decades discussing the cause and rate of climate change and have done almost nothing to prepare for, much less ameliorate the current trajectory in global climate change.

The disaggregation of settlement patterns and shoddy construction have made humans more and more vulnerable to natural events. Regardless of cause (or even the direction) of climate change, actions needed to address the impact – changes in sea level, violent weather, changes in the water cycle. The actions that would be prudent are the same ones that would be wise if the humans WERE the cause and the direction was rising temperatures.

Shrinking human's ecological footprint is imperative.

The impact the current trajectory on species diversity and genetic resiliency of continuing the current trajectory is literally suicidal.

E. The Great Recession.

For many The Great Recession has NOT ended. A future chapter will consider questions such as: Will there be a double dip? Is The Great Recession turn out to be – as predicted by many since 2008 – similar to The Long Recession (1873 to 1896)? What will the impact of the Wealth

Gulf be in an economic and physical context WITHOUT the seemingly infinite resources that existed in the last three decades of the 19th century?

F. Global Population.

As noted in Overview, the recently revised population projections by the UN indicate there is little current hope of a reduction in the basic driver of demand. Instead of a population ‘peak’ at ONLY 9 Billion in 2050, population growth in Africa will push to projected peak to 10.1 Billion in 2100.

CHAPTER THREE – THE DRIVERS OF EXPANDED DEMAND AND CONSUMPTION REFLECTED IN THE ARAB SPRING

Beta 3 Chapter Three provides insight into the parameters of consumption driven by The Arab Spring.

The drivers explored in this Chapter, while highlighted by The Arab Spring venues, effect other Regions from the former Soviet Union components to South East Asia and even sub-Saharan Africa and Latin America.

At this point there is not way to fill in the details. The Arab Spring is ‘in process’ and will go on for years, perhaps decades. However, the following drivers are now clear.

Urban. Over half the human population of the planet is now Urban. The majority of the planet’s human inhabitants are called ‘Urban’ not just because they have Urban sources of income (Jobs) and Urban shelter (Housing). They are Urban because they must rely on Urban Services to live safe and happy lives. They can no longer fall back on the self reliance of subsistence agriculture for survival. Millions may be living in shanty slums and favelas but they WANT Urban Recreation and Urban Amenities.

A BALANCE of Jobs / Housing / Services / Recreation / Amenity in Urban settlements is essential for humans to achieve a sustainable trajectory for and Urban civilization.

The Arab Spring uprisings are Urban revolts as the details of the conflicts in Tunisia, Egypt, Libya, Syria and elsewhere document.

Urban citizens consume far more resources per capita that NonUrban citizens. Gross gains in efficiency are possible – shared walls in dwellings, intelligent architecture, less vehicle-dependent Mobility and Access. At the same time, as of 2009, almost 50 percent of humans lived “essentially as humans lived 8000 years ago” and they want to move up. See *Home* – a film by Yann Arturs Bertrand.

Literate and Educated. Not only are the revolting citizens and subjects Urban humans, many are literate and a large percentage are educated.

The spark that ignited the Arab Caldron was an unemployed college graduate who set himself on fire when the police confiscated his fruit stand – his only source of livelihood.

Critical Mass. Tunis is the Urban focus of a small nation-state – Tunisia – with 10.6 million citizens. Cairo is the Urban focus of Egypt. Egypt is the largest nation-state (80.4million citizens) among the 20 nation-states with signs of unrest when The Arab Spring was identified.

These 20 nation-states total over 500 million citizens and subjects. This is larger than the population of the EU and or North America.

This 500 million plus head count does NOT include those places already in chaos – Somalia, Afghanistan and the two Sudans – or the ones with only rumblings of discontent so far – Saudi Arabia, Qatar and The United Arab Emirates. Then there are Israel, Turkey, Armenia, Georgia, Azerbaijan, and other adjacent remnants of the Soviet Union, as well as disenchanting parts of Russia, Iran and Pakistan perched on the edge of the Caldron. As noted in Chapter Two, Iraq, Afghanistan Iran and parts of Pakistan are in, and may continue to be in, various degrees of conflict.

Taken together there are more humans involved in some form of conflict at the present that there were in either WW I or WW II. That is a product of the exponential growth of population noted in the Overview and in Chapter Two.

Aware. The North African and Middle Eastern citizens and subjects in the nation-states that are rioting are not all Urban but the size of the nation-states and the cumulative impact of exporting strategic resources and importing labor from other nation-states creates a privileged class whose lifestyle makes these citizens and subjects FAR more ‘aware’ of what they are missing and makes them far less isolated than those in some Central Asian, Southeast Asian, African and South American nation-states.

Connected. The half a billion plus citizens and subjects in North Africa and the Middle East that are in some state of revolt are informed (and / or misinformed) AND they are connected with one another so they can keep informed (or be misinformed) IMMEDIATELY.

Even if all the Urban (and NonUrban) citizens and subjects do not have a cell phone or a computer with Internet access, they know someone who they TRUST that does have those instruments of connection.

Desire. These connected citizens and subjects – the Urban ones and a lot of the NonUrban ones as well – have seen what those at the top of the economic food chain have – in their own Region, across North Africa and the Middle East and around the world.

Even if they have not yet personally experienced what others have, they have seen pictures and reports of the modern wonders that others are consuming. They do not know that the advertising they have seen makes what those at the top of the food chain have SEEM even more desirable than it actually is.

The Urban citizens in revolt KNOW what they want and they have the tools to make Fundamental Transformations.

In response to the Beta 1 draft, Jim Bacon questioned if the unrest was about ‘stuff’ (consumption and quality of life) or about rampant corruption, injustice and voicelessness. See **End Note Six**

The existence of corruption, injustice and voicelessness is an important catalyst but The Arab Spring is not just about corruption, injustice and voicelessness. It is driven also by the desire to have a more fair distribution of the resources of the planet.

When regimes change and citizens have a voice they will want real change in the distribution of resources because of the factors driving The Arab Spring listed – a Critical Mass of Urban Citizens that are literate, educated, aware, connected and desire real change.

No matter who ‘wins’ in the short term, once there is a Critical Mass of connected and aware citizens they will continue to press for change and re-change if the first change does not improve their share of resources.

There is nothing in the culture or religion of Arab society that suggests that temperance of meekness will cause the Arab Street to grow quiet and submissive once they have access to power and resources. The appetite for consumption in Saudi Arabia, Qatar, The UAE and elsewhere and well at in the ruling elite of all The Arab Spring nation-states make this clear.

The Deficit: The most important, reality is that all the factors outlined in this Chapter suggest that there is NOT ENOUGH for all of those in revolt to have what those at the top now have, or appear to have as outlined in Chapter Eight – The Bottom Line.

CHAPTER FOUR – THE RELATIVE IMPORTANCE OF THE ARAB SPRING

Beta 3 Chapter Four examines the relative importance of The Arab Spring to other landmark events since The Great Depression. **See again End Note Five**

It is fashionable to compare the impact of pivotal events. Professor J. Rufus Fears of the University of Oklahoma lists the Atom Bomb (1945), JFK Assassination (1963), Martin Luther King March (1963) and 11 September 2001 as events after which the world was never the same.

When The Arab Spring dawned it was suggested that it was the most important event since The Great Depression. The Arab Spring is important but how can this multi-Urban Region uprising be more important than World War II, the end of the Cold War, 11 September 2001 or The Great Recession with respect to resource demand and consumption?

Perhaps the key is timing. The Arab Spring comes at the time humans must face the reality of the finite resources of the planet. The Arab Spring comes at the top of the consumption curve.

World War II

Yes, World War II ended the Great Depression, World War II ended the threat of the Axis powers, World War II developed US industrial capacity and technology, But:

At the end of World War II there was still ENOUGH resources to rebuild Europe and Japan and to apply the new industrial capacity and technology to exploit even more Natural Capital.

Living off the consumption of Natural Capital accommodated the Urbanization of the majority of the human race – especially in those places with petroleum resources – the caldron that is now boiling due to the Arab Spring.

Exploitation and Consumption (Mass OverConsumption) raised ‘All Boats’ for three decades following World War II. It continued to raise a few boats – boats occupied by those at the top of the Ziggurat – for three more decades as the Wealth Gap grew to be the Wealth Gulf.

End of the Cold War

Yes, the fall of the Soviet Union opened the world to democracy and free enterprise, But:

When the Wall fell there was still ENOUGH to rebuild East Germany and some of Eastern Europe. However, the Peace Dividend was squandered on making those at the top of the economic food chain much more rich and finding new excuses to squander Natural Capital at the expense of human society.

At the inter-nation-state scale much of the remaining resource base and much Natural Capital was wasted fighting wars to temporarily insure the flow of petroleum from Regions rich in that form of Natural Capital – mostly in the Caldron that is now boiling due to the Arab Spring.

At the nation-state and Regional scales much of the remaining resource base and much Natural Capital – e.g. the vast majority of the petroleum imported into the US – was devoted to the use and expansion of a failed Mobility and Access system. See what come after the Autonomobile (Forthcoming).

11 September 2001

It is still too early to be sure but 11 September 2001 may be seen in the future as the profound wake-up call that was missed. Like the OPEC oil embargo of 1973, this event could have been used to galvanize support across the political spectrum and across the globe for Fundamental Transformations to prepare for the future.

Instead citizens were told to “go shopping.” The sympathy for the US from abroad and the unity of the citizens was squandered on attempts to score points and to even scores.

11 September 2001 may be seen as the start of Urban citizens, led by the US, to jump off the cliff into ‘overshoot’ of consumption over conservation and waste over Balance.

The Great Recession

The Great Recession was caused by speculative greed in the shelter and financial sectors, and by poor underwriting standards, lack of regulatory enforcement, Wall Street greed, moral hazzard and garden variety corruption. The results of The Great Recession to date have been devastating to Households, most Agencies, some Enterprises and Institutions, but primarily Households.

In fact during The Great Recession the Wealth Gulf between the very rich and everyone else widened.

The aftermath of The Great Recession has been the inevitable rise in the cost of energy and cost of the goods and services that consume energy and scarce resources. The price of food is approaching all time heights. To date starvation has been the result of Agency corruption and Enterprise greed preventing humans from receiving the bare essentials in the future.

The Great Recession triggered First World actions that ignited the Caldron that is now boiling due to the Arab Spring but the outcome of the current revolt will eclipse The Great Recession, The Great Depression and The Long Depression.

As summarized in Chapter Eight – The Bottom Line, expanding high of per capita consumption to those who now want it and have the power to demand it will mean there is NOT ENOUGH period.

Jim Bacon has a way with words and after reading the Beta 1 Draft of ENOUGH? he wrote:

“The world is undergoing a massive expansion in demand for material goods without a commensurate increase in the supply of agricultural products, energy and raw materials. Inevitably, prices will rise -- and those rising prices will precipitate more of the unrest that we have seen in the developing world, and could well precipitate unrest in the advanced countries, too.

“Overthrowing corrupt regimes and redistributing wealth more evenly will provide a palliative for the dispossessed classes, but only a temporary one. As global commodity prices continue to rise, expectations will be crushed. No political system, regardless of how democratic it is, regardless of how strong its rule of law, regardless of how it respects human rights, can undo the laws of economics, nor can regime change undo the drawdown of Natural Capital.”

The Road Ahead

It is already clear that the revolts change the parameters of ‘diplomacy.’ All the old bets are off. For example, the US will not be able to preach human rights and democracy while supporting dictatorships whether they are based on election fraud, ruling families or gun toting thugs.

As suggested by President Obama’s speech of 19 May noted in Chapter Two, the excuse of ‘threaten oil supplies’ will no longer be sufficient to support dictators.

Military power and military bases will NOT insure the inter-nation-state flow of petroleum. OPEC may grow or there may be price wars but having reached Peak Oil, the price of energy will rise. The wondrous reservoir of Natural Capital has been squandered.

In the context of Wikileaks, it is fair to ask if Agencies reached the end of justification for “state secrets”? What good are ‘secrets’ when everyone ‘knows’ what is going on?

Will the revolts in North Africa and the Middle East and those inspired by them elsewhere yield societies that do not rely on Agents for buying and selling, the protection of ‘citizens’ rights?

It may not matter what sort of regime takes over ‘next’ in any of the revolting nation-states. The next regime may be fundamentalist / religion-based, in may be a form of dictatorship communist capitalism, it may be a form of oligarch capitalist or perhaps rabid populist. It may not matter, none will survive long unless they produce and distribute to the citizens what the citizens believe is a fair share.

And when that happens, it will be VERY CLEAR that with the current per capita consumption there will NOT BE ENOUGH. See Chapter Eight – The Bottom Line.

AND that there will NOT BE ENOUGH if humans do not come to realize it is everyone's best interest to voluntarily reduce the population of every Community, SubRegion and New Urban Region. See next to final section “Is There Any Way For Everyone to Have Enough?”

Will the revolts lead to the end of nation-states? Kirkpatrick Sales has an interesting new Perspective that suggests that the Agencies with nation-state powers that are best in health care, longevity, literacy, educational achievement and happiness have populations of between 3 and 5 million.

See <http://www.utne.com/Politics/Argument-for-Secession-Kirkpatrick-Sale.aspx>

That is about the size of a functional New Urban Region. Sales suggests “The United Independent States” would result in a more sustainable trajectory. More on this topic and its relationship to the first five PARTS of *TRILO-G* in future chapters of this Perspective.

CHAPTER FIVE – QUANTIFICATION OF ENOUGH

Beta Chapter Five considers the quantification of ‘Enough.’

The question: “How much is ENOUGH?” That is a question Urban humans have been asking for at least 2,500 years. See APPENDIX ONE which is a copy of Chapter 5 Box 1 from *THE SHAPE OF THE FUTURE* (2000).

Optimists believe that there is ENOUGH for a fair distribution of resources and maintenance of a technology based civilization but ONLY IF there are Fundamental Transformations of settlement pattern, governance structure and economic systems AND that those Fundamental Transformations start SOON.

Given the current distribution of resources and power this is how the landscape appears:

In the US. In the US stability will only last for a short while with the present per capita consumption by those at the top of the food chain and the vast discrepancy between those in the top 10 percent and those in the bottom 90 percent. The Wealth Gulf is especially dramatic between those in the top 1 percent and the bottom 60 percent. When PROPERTY DYNAMICS (now – PART ELEVEN of *TRILO-G*) was first outlined in 2004 it was the bottom 50 percent.

During The Great Recession the Wealth Gap has become the Wealth Gulf.

The promise of a return to ‘normal’ via tax cuts for the rich, reducing the size of government and enforcing ‘traditional values’ is destined to fail. For example, tax cuts for the rich to induce them to spend and thus ‘grow the economy’ will fail because ‘the rich’ will only spend on things that ‘grow the economy’ if they think they can get EVEN RICHER. That is not a realistic prospect if there is not ENOUGH. The promise of easy solutions will prove to be an illusion in the face of rising cost of energy and the shifting global reality triggered by The Arab Spring.

The currently popular bromides will be seen to serve the interests of big campaign donors and they will be replaced by promises to serve the interests of citizens who want their fair share – one way or another. Are the demonstrations in Madison going to lead to ones like those in Athens? They will when it is clear there is NOT ENOUGH with the current distribution of costs and benefits.

In the EU and Japan. In the original nation-states of the EU, Japan and a few other places stability will last a little longer because these Urban populations have held their per capita consumption to lower levels and have learned better the need to share.

On the Rest of the Planet. There are many places where there is clearly NOT ENOUGH for a fair distribution of resources even in the near future given the present per capita consumption of those at the tip of the economic food chain – the top of the Ziggurat. China and India are clear

examples. The loss of US and EU markets will result in an end to economic expansion based on squandered resources and cheap labor. Labor will not remain 'cheap' if the promise of 'a better life' cannot be fulfilled.

If Libya, Bahrain and Syria can revolt, so can each of the regions of China. Selling all those workers cell phones and training all those engineers may not have been a good way to preserve 'the communist way.'

It is clear that there is NOT ENOUGH in some places even when they have large surpluses of some Natural Capital such as Russia. Chechens have already proven to be willing to blow themselves up to achieve some objectives – getting a share of what the oligarchs have is the next step.

However, in the North Africa, the Middle East where the revolt has started and also in Central Asia, South Asia. Oceania and the rest of Africa there is NOT ENOUGH now and there never will be ENOUGH without massive redistribution of both EXPECTATIONS AND RESOURCES. AND there must be Fundamental Transformations of settlement pattern, governance structure and economic systems.

THE QUESTIONS ARE:

Will humans achieve Fundamental Transformations in time so that the current generation of young adults and their children can survive and adopt ways to both reduce per capita consumption and reduce population and achieve a sustainable trajectory?, OR.

Will humans continue on an unsustainable trajectory resulting in famine, conflict and chaos?

THE OPTIMIST VIEW

Optimist say there IS a way to achieve a more fair distribution of resources and preserve a technology based society for six billion citizens who understand the need to reduce both per capita consumption AND the total population to achieve a Balance with the carrying capacity of the planet.

Others say the next stable form of human society will be the New Bronze Age with far fewer humans and far more simple technology.

For two decades SYNERGY has been saying that the place to start is with a fair distribution of the location-variable costs of goods and services. This will yield a more functional and sustainable human settlement pattern via an informed market. See ***THE SHAPE OF THE FUTURE.***

However, as laid out in *TRILO-G* there must be Fundamental Transformations of not only settlement patterns, but of governance structures and economic systems as well.

Future chapters of ENOUGH? will focus on the two basic parameters that Jared Diamond found characterized societies that do not COLLAPSE:

- Make Plans for the Future, and
- Reconsider Traditional Values when conditions change.

The Arab Spring suggests that conditions HAVE changed.

Agencies in the United States now operate under a Constitution that was drafted by very intelligent leaders who believed that resources were unlimited. In the context of 1775, they WERE unlimited and appeared infinite.

The rhetoric of Andrew Jackson articulated a national (and genetically driven?) obsession that consumption of Natural Capital into a national goal and an individual right. This obsession was brilliantly profiled by Alexis de Tocqueville in *Democracy in America*. Andy Jackson had no idea that what was something happening in Great Britain and Northern Europe – later dubbed ‘The Industrial Revolution’ – would Urbanize the entire human population.

Gone are the yeomen farmers and subsistence agriculture of Thomas Jefferson and the society of 1775.

To amplify Loren Eiseley’s metaphor on Homo sapiens being a cancer on the face of the planet:

The Agrarian Revolution converted the human population from an integral part of a slowly evolving organic system to become a distinct subsystem of slowly growing and stilly largely benign warts.

The Industrial Revolution converted the human population into a raging complex cancer that lived on the Natural Capital. The Natural Capital that the founding fathers treated as infinite.

Nation-state competition and Centralized Capitalism (thank you Richard Thornton) or SuperCapitalism (thank you Robert Reich) does not provide a door to a sustainable trajectory for a technology based civilization.

There is a growing body of thought that one must look beyond the beliefs of 1775 for a stable basis for human society. Now that it will become clear to all that there is NOT ENOUGH, citizens must look back to an earlier time and to earlier documents – The Magna Carta and the Charter of the Forest. As in the early 21st century, the early 13th century was also a time when it

was clear that, within the resources available to the citizens there was NOT ENOUGH to support a war with France, the Crusades and the whims of King John.

It turns out that while “The Tragedy of the Commons” published in *Science*, Garrett Hardin did not base his view of The Commons on science, fact or history.

There will be NOT ENOUGH unless humans learn to SHARE. Not just shared vehicle systems to solve the Mobility and Access Crisis and shared space to solve the Affordable and Accessible Housing Crisis but shared resources and tools across the spectrum of human activity.

See again [End Note Three](#)

CHAPTER SIX – THE ANATOMY OF FUNDAMENTAL TRANSFORMATIONS

Chapter six of the Beta 3 version of ENOUGH? explores the concept of Fundamental Transformations.

Over the past 8,000 years the Fundamental Transformations of human civilizations have been incremental and spread over thousands of years. Now humans for the first time face the imperative of making Fundamental Transformations in settlement pattern, governance structure and economic systems in months and years, not centuries and millennia.

THE AGRICULTURAL TRANSFORMATION

The first Fundamental Transformation of human civilization for which there is sound archeological and anthropological evidence is the Transformation from hunter-gather societies to agricultural societies. This transformation ‘started’ about 13,000 years ago. Even today in the Amazon Basin, New Guinea and elsewhere, there are remnant clans and tribes that have not yet Transformed from hunter-gather societies.

“13,000 Years Ago” marks the approximate end of last ‘great’ ice age. Much older hunter gather societies practiced forms of agriculture but the evidence is sparse. Squirrels and chipmunks at Fox’s Herb Farm collect surplus seeds and nuts and plant them in hopes of harvesting a crop of safflower, sunflower or walnuts in the future. Surely, early humans were as smart as squirrels and chipmunks.

As the new generation of archaeologists are demonstrating in the Amazon Basin and in Southeastern US, the settlement patterns of societies with organic and earth building materials can be obliterated in centuries much less millennia. A good place to farm or establish a Village 3,500 years ago was likely to be a good place 2,500, 1,500 or 150 years ago. Ancient artifacts are commingled with those of later societies and misidentified. The time line is blurred.

THE URBAN TRANSFORMATION

Conventional wisdom is that Urban agglomerations evolved about 8,000 years ago. Jane Jacobs suggested, and others now agree, that even before agriculture became a widely applied strategy for producing food, ‘neolithic trading villages’ appeared. From these ‘villages’ 1) work specialization, 2) regularized markets, 3) bulk food storage and 4) animal domestication evolved.

What ever the path of evolution, large, permanent Urban settlements have been well documented from around 6,000 years ago. The Transformation of agrarian societies to Urban societies preceded slowly over the following 5,800 years.

Large Urban agglomerations dating back thousands of years have been located not just in ‘Asia Minor’ but throughout Eurasia, Africa and the Americas. Professionals associated with The People of One Fire and others have documented evidence of advanced Urban agglomerations, and complex societies as well as European colonies that existed in what is now the US long before 1492.

After Urbanization spread planet-wide at a snail’s pace for 5,800 years, it exploded over the last two centuries. The period of massive Urbanization from 1800 to 2000 has been called the most profound Transformation in human history by Peter Drucker.

During the period from 1800 to 2000 the population of the most advanced Regions Transformed from 5 percent Urban and 95 percent NonUrban to 5 percent NonUrban and 95 percent Urban. However, that is just the ‘hockey stick’ end of a long evolution. See the Chapter One, Box 2 of *THE SHAPE OF THE FUTURE*.

Urbanization was kicked into overdrive due to the removal of dead wood by the Black Death, inspired by the Renaissance and facilitated by the Industrial Revolution. The Urbanization was paid for by exploitation of the resources of the ‘New World.’

SORTING FUNDAMENTAL MATRIX TRANSFORMATION AND TECHNOLOGICAL REVOLUTIONS FROM INCREMENTAL EVOLUTION

Humans took a thousand years between the decline of the Roman Empire and the ‘discovery’ of the New World to acclimate to and accommodate the changes wrought by the emergence of MultiRegional Assyrian, Persian, Greek and Roman Empires. With plentiful resources, how long would it take trial and error Institutional evolution to sort out the far more profound changes that resulted from colonialism / imperialism before 1800 and Urbanization / globalization since 1800?

The question is moot because ENOUGH resources no longer exist to support trial and error incrementalism in making Fundamental Transformations.

During the thousand years between the demise of the Roman Empire and the ‘discovery’ of the ‘New’ World,’ holly men, land owners, knights and guilds evolved the three Estates of the Realm to manage the increasingly complex human societies that existed prior to 1775. See THE ESTATES MATRIX - PART TWO of TRILO-G.

Should the evolution of the Estates of the Realm be considered a Fundamental Transformation? If so then the transformation from the three Estates of the Realm (Church, Nobility, Commoners) to the Four New Estates (Agencies, Enterprises, Institutions and Citizens / Households) also must be given that status.

Most who paid attention in high school are familiar with the milestones of social, technological and scientific progress: The Old Stone Age, The New Stone Age (Neolithic) Age, The Copper, Bronze and Iron Ages, the rise of the MultiRegional empires noted above, the emergence of monotheistic religions, The Dark Ages, The Black Death, The Inquisition, The Enlightenment, The Renaissance, The Industrial Revolution and the Technology Revolution. The more recent these 'revolutions' were, the more important they SEEM to contemporary humans. However, all were important.

The Industrial Revolution was the 'cause' of the rapid Urbanization of human civilization. The Industrial Revolution provided the tools to exploit the planet's resources, transport people and goods and transform raw materials.

New World resources made available by the emergence of technology and science paid for exponential growth characterized by 'the Hockey Stick Graphic.' As noted in Chapters One and Two, the Hockey Stick Graphic represents the exponential growth of EVERYTHING:

- Population,
- Per capita consumption,
- Resource depletion, and
- The human impact on environment including species extinction and dwindling biological diversity as well as pollution / contamination of land, air and water. See discussion of exponential growth in Chapter One.

It is an open question whether THE ESTATES MATRIX transformation, the events such as The Black Death and the technological "revolutions" should be considered Fundamental Transformations. Identifying too many events as 'Fundamental Transformations' may cloud the profound significance of the most important ones.

A definitive answer to this question is beyond the scope of this Perspective. These transitions events and revolutions are noted here to contrast these human milestones with the two Fundamental Transformations:

- The transformation from hunter-gather societies to agrarian societies, and
- The transformation from agrarian societies to Urban societies.

The Fundamental Transformations changed:

- Human settlement patterns
- Food production
- Holding capacity
- Per capita consumption

LOOKING AHEAD

To date there have been three basic configurations of human activity – hunter-gather, agrarian and Urban. All three have been based on the premise that it is in the best interest of Households and their Organizations to maximize the consumption of resources (maximize ‘growth’) as the path to maximizing health, safety and welfare.

While it is true that half the human population now lives in Urban agglomerations, it is also true that nearly half live “essentially as they did 8,000 years ago.” That is why The New Reality is so important.

During the evolution of agricultural societies and Urban societies, INDIVIDUAL societies have risen, prospered or Collapsed based on their ability to plan for the future and to evolve beyond ‘traditional values’ when conditions changed. See Jared Diamond, *Collapse: How Societies Choose to Fail or Succeed*, (2005, Rev 2011).

Failure to plan for the future intelligently and resistance to change of ‘traditional values’ in the face of fundamental changes in economic, social and physical reality has and will result in Collapse.

In 2011, humans have created ONE economic and physical MegaSociety connected by instantaneous communications and economic interdependence on a ‘flat’ earth. This global MegaSociety is made far more complex by the fact that there are different and often conflicting social (cultural) visions of prosperity and success. As documented in Chapters One through Five there is a dwindling supply of resources to meet the expanding expectations of the 6.7 BILLION humans.

Humans now face by far the most important Fundamental Transformation in the evolution of civilization.

Obtaining a sustainable trajectory for civilization cannot depend on incremental changes that result from millions (now billions) of humans doing what they think in their best interest over hundreds or thousands of years.

The exhaustion of resources and the fact that there will NOT be ENOUGH resources means that for the first time in the evolution of civilization, humans must INTENTIONALLY Transform.

Humans must change the unsustainable trajectory or face Collapse. The rich Regions must abandon what they have THOUGHT was in their best interest with respect to settlement patterns, governance structure and economic systems.

This is where GENETIC PROCLIVITY comes into play.

Every human shares 96 percent of their genome with any wild chimpanzee.

There are still Neanderthals alive and well. Many maintain Blogs and deposit comments on the Blogs of others.

Chapter Eight presents THE BOTTOM LINE.

CHAPTER SEVEN – WHAT ABOUT THE ENDLESS CORNUCOPIA OF ‘GROWTH’ AND PROSPERITY DRIVEN BY TECHNOLOGY AND INNOVATION?

Beta 3 Chapter Seven surveys the context and reality of the “What!, Me Worry?” world view. There are Panglossian Fantasies that posit an Endless Cornucopia of ‘growth and prosperity’ thanks to Technology, Innovation and Investment without regard to the finite limit on the planets total resources which is the focus of Chapters One through Six.

At least that is the current plan for Chapter Seven. However, Chapter Seven may become (as some or all of the ‘future chapters’ listed following Chapter Eight may become) a segue to, and summary of, a separate FOUNDATION Perspective. See **End Note Seven**.

Beta 3 Chapter Seven exists only because of a comment by Jim Bacon in his review of the Beta 1 Draft. (For other Jim Bacon observations on ENOUGH? Beta 1, see again End Note **Six** and the quote from Mr. Bacon in Chapter Four. Bacon’s observation’s the topic of Chapter Seven are addressed below.)

The first six chapters of ENOUGH? focused on the rising expectations of about 4 billion persons – over half the human population of the planet. This chapter reflects the expectations and perspectives of those in the upper strata of the economic / social Ziggurats in ‘developed’ Regions and the very top of the Ziggurats in Regions that are NOT the focus of the first six chapters. At most this cohort is only about 100 million of the 3.8 billion that were NOT the focus of the first six chapters.

This cohort, less than two percent of the Earth’s human population, has controlled and consumed the vast majority of the planets resources over the past century. ENOUGH? Suggests that this is about to change in dramatic fashion.

Context for Thinking About the Future. The context for considering the future has five overarching and overlapping spheres:

- This Way Out or No Exit?
- Humans Stare Into the Abyss
- Walking Backward Into the Future
- Technology Will Save Us
- Selfishness and Greed Born of Excess and Sloth

Each of these spheres is examined briefly in Chapter Seven.

THIS WAY OUT or NO EXIT?

The fact that for the foreseeable future Homo sapiens have NO EXIT from the planet Earth – and therefore must fashion a sustainable trajectory or perish is – Fundamental to any discussion of human settlement patterns or any other basic parameters of human well being.

The fact that there is No Exit is the ninth of the Nine Fundamental Theses that open ***THE SHAPE OF THE FUTURE (SotF)***. The Nine Fundamental Theses are listed in Chapter 1, Box 1. No Exit is also a major topic in Chapter 23 of *SotF* titled “The Test of Sustainability”. The physical parameters that document the reality of No Exit are spelled out in Chapter 23, Box 1.

A spate of planet ‘discoveries,’ in the 00's – after ***THE SHAPE OF THE FUTURE*** was published – led to a restatement of the reality of human inter-stellar quarantine (much less inter-galactic quarantine) and is documented in Column # 100 “Still No Exit” (2 July 2007). After even more planets were ‘discovered,’ No Exit was again addressed in Chapter 25 (“Virtual Unreality: The Illusion That There Is An Exit”) of ***TRILO-G***. Since that time hundreds more new planets have been ‘discovered’ in the Universe.

No planet other than the Earth has been shown to be habitable by Homo sapiens without extensive, expensive and often re-supplied life support systems. Tests of potential self-sustaining life support systems on Earth (e.g. Biosphere) have not turned out well due to both physical and psychological dysfunctions. So far these self-sustaining life-support systems have been only quasi-self contained, of limited capacity and very expensive.

Even if large scale and fully self-contained life support systems that can travel for millions of miles over decades were perfected and / or other planets were found to be potentially inhabitable, these planets remain far beyond the reach of the most futuristic inter-stellar (much less inter-galactic) travel fantasy.

Much more disturbing to many is the fact that in any exit mission that is ‘successful’ those lucky enough to ‘escape’ would leave behind billions and billions of humans – about 6,799, 999, 850 if they left tomorrow.

An Exit Strategy may not be unnecessary since achieving a sustainable trajectory for human civilization may still be possible. In time – sometime over the next billion years plus or minus before the Sun implodes – the currently unsurmountable problems of an Exit Strategy may be solved. But on the current path, human’s will have killed themselves off long before that.

For now there is NO EXIT. There is NO EXIT STRATEGY and little time left to fashion a sustainable trajectory to avoid the need for one.

HUMANS STARE INTO THE ABYSS

From interpretation of the earliest fossil and archeological evidence of humans, it is clear that men and women have ‘always’ sought assurance of some form of ‘after life’ / continued existence. That is especially true for those at the top of the Ziggurat who control the resources.

The great monuments of ancient, classical, imperial, and colonial civilizations reflect humans reverence to ‘the beyond.’ The Egyptian pyramids, the Maya temples, the Gothic cathedrals, the Islamic mosques, the Hindu temples, et. al. prepare those in control of the facilities for an ‘after life.’ All the major religions and almost all belief systems (including systematic myths, minor religions and fantasies) have an ‘after life’ or reincarnation tradition. In recent times, primitive societies evolved myths concerning ‘Manna from the sky’ such as the Cargo faith in New Guinea.

Humans have a deep seated desire to disconnect from the reality of finite limits – for themselves, their society and for the resources upon which their existence depends. Professor Albert Barrett’s quotation that opens Chapter One – “The greatest shortcoming of the human race is failure to understand the exponential function” – is the operative observation here. Jared Diamond articulates the consequences of insisting on pursuit of ‘traditional values’ when circumstances change in *Collapse*.

Those who cling to the hope that they can revive, and retreat to, the resource abundant past create elaborate conspiracy theories around the theme that ‘others’ are trying to steal their ‘freedom,’ ‘rights’ and ‘liberty.’ These myths are intended to generate terror, patriotism and resistance to change among those who fear ‘others’ are trying to steal their ‘freedom’ and ‘liberty.’ The network of Agenda 21 conspiracy theories is a prime example.

Self-styled ‘conservatives’ mount a fierce defense of convenient but consumptive and unsustainable technology and settlement patterns. The mythical “American Dream” is a good example. The American Dream myth is supported by ideologues in spite of declining a market for the primary product – Large Single Household Detached Dwellings in the Wrong Location – and irrefutable evidence of unsustainability of Mobility and Access via Large, Private Vehicles. See work of Victoria Transport Research Institute, THE PROBLEM WITH CARS and WHAT FOLLOWS THE AUTONOMOBILE? (Forthcoming.)

WALKING BACKWARDS INTO THE FUTURE

Compounding the human genetic proclivity to avoid the need to make Fundamental Transformations in the context of finite and diminishing resources is the fact that there are few ‘leaders’ upon which citizens can rely to provide sound future projections. Professional ‘futurists’ in general (as well as all lawyers, judges and many ‘legislators’) walk backward into the future by projecting recent trends. See the collected efforts of The World Future Society.

That is a real problem because:

Organic / natural and economic processes are characterized by Punctuated Equilibria and not by predictable continuation of recent or current trends. The Arab Spring is the most obvious recent punctuation in the equilibrium.

Long range planning by Agencies, Enterprises, Institutions and Households is crippled by the human genetic proclivity to avoid the need to change. Whether one is talking about Scenario Planning, Visioning, Sensitivity Analysis, Contingency Planning or Computer Simulation (Modeling) the same human factors intervene. (The topics of Computer Simulation and Visioning as they apply to human settlement patterns are explored in *THE SHAPE OF THE FUTURE* and in *TRILO-G*.)

Based on work by Rand Corp. for the US Dept. of Defense and by consultants to Royal Dutch Shell, the ‘science’ of Scenario Planning for Agencies and Enterprises gained credibility in the 90s and the early 00s. A whole ‘University Industry’ (as contrasted with a ‘Cottage Industry’) evolved around the subject. *The Art of the Long View: Planning for the Future in an Uncertain World* (1991) was a bellwether in this activity. The author, Peter Schwartz, joined two others (Peter Leyden and Joel Hyatt) to author *The Long Boom: A Vision for the Coming Age of Prosperity* (1999). Then something else happen. The Great Recession and now the Arab Spring and related events summarized in Chapter Two.

As Mark Twain observed:

"It's not what you don't know that kills you, it's what you know for sure that ain't true."

Perhaps it would be more accurate to say “what you still do not understand” since the finite limit of resources has been a major theme of intelligent thinking since the 1920s.

One branch of futurist fantasy – that will be returned to in the later sections – suggests that medical procedures, drugs, prosthetics and orthotics will vastly increase the potential of humans. Joel Garreau is an advocate of this potential.

There are two problems with extolling the bionic potential of individuals and then jumping to the conclusion that ‘human potential’ will be expanded by expanding the capacity of select specimens.

First there is the cost of souping up a single individual. Increasing capacity is very expensive. Contemporary society cannot now afford to keep ‘everyone’s teeth from becoming rotted and falling out. Millions are constantly on the verge of starvation. Billions do not have clean water to drink. In the face of these basic needs there are resources to make a few super strong, super smart or super long-lived?

The second and compounding problem is what to “do about” all those WITHOUT super powers? This second issue is explored in the sphere of Technology as a Savior below. Also see the discussion of ‘futurists’ in Chapter 37 of *TRILO-G*.

TECHNOLOGY WILL SAVE US

The Long Boom: A Vision for the Coming Age of Prosperity noted above is a good example of those who worship at the shrine of technology. The Great Recession happened and now with The Arab Spring, the drivers of *The Long Boom* are driving in the other direction.

The Technology Will Save Us sphere of future parameters is where the comment by Mr. Bacon noted at the start of Chapter Seven enters the equation. Mr. Bacon raises and then downplays the specter of “The Singularity.” See End Note **Eight**

However, the prior three Perspectives (No Exit, Humans at the Abyss and Futurist Walking Backwards) needed to be articulated before the roll of technology can be discussed in context.

The ‘singularity’ is said to be ‘when humans transcend biology.’ It is also termed the ‘unity of man and machine.’ Kurxweil et. al are NOT talking about the unity of:

- A farmer and his harvester or his soil moisture monitoring system
- A forester and her chainsaw or her yield optimization program
- A roofer and his pneumatic nail driver or his solar panels
- A baker and her dough hook or her nutrition analyzer
- A public utility worker and his remote meter reader or his effluent monitoring gauges
- A steeler and her slag skimmer or her alloy analyzer
- A retailer and his scanner or his inventory control software
- A trucker and her air-ride cab or her load equalizer
- A woodworker and his laser guided saw or his laser ruler
- A mechanic and her tools or her motorcycle
- A pilot and his instruments or his airplane

No, they are talking about a geek and his computer. They see the future in the context of supercomputers. They see robots and bionic men / women and their hardwired cerebral enhancement – a 21st century codpiece / silicon implant.

There may well be the potential for computers to be much smaller and have much higher capacity. But what about the resources and relationships that maintain human life? What about the billions of humans that are engaged in the activities that make life possible? Are they just chopped liver?

What about air, food, water and shelter?

The unity of man / woman and machines is about ideas and innovation. But it is REALLY about control, monitoring, simulation, virtual reality, enhancing ‘productivity’ and improving competitiveness. Right now the main focus is to manipulate citizens to become ever more consumptive Mass OverConsumers.

The inevitability of ‘technological progress’ is NOT inevitable. That is because there will not be ENOUGH to sustain the expanded consumption required to support major technological leaps forward – especially if the benefits are shared with the majority of citizens.

The “problems” humans face are NOT lack of technological know how. The PROBLEMS citizens face are rooted in the frenzied increase in consumption driven by the illusion that economic, social and physical ‘growth’ can continue without regard to finite resources.

The threshold problems are lack of potable water, access to nutritious food that is affordable and Affordable and Accessible shelter. These problems face half the planet’s population. In this context what good are smart robots?

To further extrapolate the consequences of the robot fantasy view of the future:

If robots do all the work, who pays 80 to 90 percent of the population, that have, nothing to do because robots can do it cheaper? This question is ‘the call center problem,’ ‘the cheap imports problem’ and ‘the cheap immigrant labor problem’ brought into focus by the robot mythology.

There is no research known to EMR that indicates technology makes most citizens happy. In fact the opposite is the case. See *Shop Class as Soul Craft: An Inquiry into the Value of Work* (Matthew B. Crawford, 2009) as well as A NEW METRIC FOR CITIZEN WELL BEING – PART FIVE and the discussion of happiness and safety in Chapter 36 of *TRILO-G*.

Politicians and belief-tank-pundits, besotted with Business-As-Usual rhetoric say “to end The Great Recession what is need are ‘JOBS.’”

What SYNERGY says is needed are NOT ‘jobs’ for the bright, educated, trained and motivated – those who excel in the fields of technology, science and math – but a completely different set of ‘Jobs.’

What is needed are Jobs (or some other source of resources to support their daily needs) for the majority who are, unmotivated, self-satisfied, self-indulgent and obese. They believe they are entitled to more and more because pandering politicians have told them they are entitled. What they believe they ‘deserve’ is based on what they have seen that others have on television and what adverts proclaim they ‘need.’ (N.B. this ‘majority’ does NOT include those with physical or mental limitations that put them out of competition for the jobs attractive to the bright, educated, trained and motivated cohort.)

For example, politicians work for impossible-to-deliver ‘solutions’ for ‘commuters’ scattered across the Countryside instead of outlining ways to help themselves become ‘NON-COMMUTERS’ within functional human settlement patterns.

As suggested above, both the Walking Backwards Futurists who want to create bionic super-persons and the Technology-uber-alles crowd have the same problem:

What percent of the population can you “upgrade” and what happens to the rest?

“The rest” are in fact the vast majority of the existing human population. Many in ‘developed’ Regions are able to do little beyond flip hamburgers but have a steak and caviar expectations. (See Chapter One) The new factor is all those in ‘developing’ Regions have new expectations as documented in Chapters Two, Three, Four and Five.)

So what to do with the ‘excess’?

- Drug them as in *Brave New World?*,
- Brainwash them as in *1984?*
- Provide Bread and Circuses?

Bread and Circuses were ultimately too costly even for Imperial Rome. It is now becoming too costly for ‘developed’ Regions – especially the US – because citizens and their Organizations have burned through Natural Capital that subsidized Excess and Sloth AND now there will no longer be ENOUGH. See Chapter One.

Actually drugs, brainwashing – like Bread and Circuses and like prisons – are also very expensive on a massive scale. ‘Treating’ 60 to 80 percent of the population is ‘massive scale.’ A further discussion of the alternatives is found in the following section on Selfishness and Greed.

NOT ENOUGH is the reason that the end is insight for profound technological advances that require vast resources – especially those ‘advances’ that ‘save labor’, induce more consumption or require more competition to exist. There are 6.7 billion humans in need ‘something’ to do and wanting to consume more of what they see the other 100 million are already consuming.

Written in the Sky. Where is it written that major technology driven advances that can improve the lot of the majority are not just over the horizon?

It is written in the sky.

Humans have dreamed of flight for millennia – long before Icarus. After thousands of years, they finally got off the ground at the start of the 20th century but about a century later there is a new reality.

Enterprise Media recently has been chalk-a-block with features speculating on what will follow the Space Shuttle. The question is: “Where to next?” The answer is: “Not very far.” See No Exit above.

Is this new reality “The End of Human Flight?” Of course not.

Railroads did not end steel tired wagons. The animal-powered steel tired wagons evolved to rubber tired, self-propelled wagons (aka cars and trucks). Cars did not end riding horseback. Cars evolved to become more efficient but far more costly. See THE PROBLEM WITH CARS and WHAT COMES AFTER THE AUTONOMOBILE? (Forthcoming).

Have humans come to the end of “flight as we had come to know it” for the vast majority? Yes.

Column # 121, 21 April 2008 (“The End of Flight as We Knew It”) was summarized by this subheading: “Between fuel prices, terrorism and the environment, air travel is losing altitude fast. In the not-to-distant future, plane rides will be a luxury for those at the tip of the economic Ziggurat.”

On any given week there are 20 percent fewer planes in US airspace in 2011 than in the first eight months of 2001. More of the airplane seats are filled but there are higher charges, longer waits AND the price of a ticket still does not reflect the environmental impact of putting CO₂, water vapor and other aerosols into stratosphere.

In the 50s, 60s, and 70s in the US it was assumed that ‘anyone’ could jump on an airplane and go somewhere. If one could not afford to fly ‘yet,’ the solution was to work harder; get a better job.

Flying fast is not easy or simple. One can fly a parasail equipped motorcycle for short distances in nice weather. Traveling beyond the speed of sound for long distances is another matter.

As noted in Column # 121 the end of the Concorde – and now the end of the Space Shuttle – are signs that the sun will set on developing and applying expensive technology in democracies when there is NOT ENOUGH.

That is because if the basic humans needs cannot be met and resources equitably shared / distributed then there is no way to sustain democracies with informed markets relying on technologies that only serve a few at the expense of the vast majority.

NASA's plans to visit an asteroid can be shown to have benefit for all. That is because one enduring danger to humans while the Sun is still stable is comet / asteroid impact. But Space tourism, supersonic flight to cut the travel time to Paris, Space Tourism or space 'explorations to achieve patriotic conquests' is a waste of resources.

General Ludd to the Rescue? When General Ludd first rallied the Luddites in 1811 and 1812 there was only a small percentage of the population of Great Britain that were impacted by mechanical knitting frames. Now it is 60 percent of the population – on the way to 90 percent – and that cannot be maintained in democratic societies with market economies. See Chapter 10 of THE SHAPE OF THE FUTURE concerning science and appropriate technology, especially Chapter 10, Box 4 concerning human's outsmarting themselves by evolving a civilization in which the vast majority have no meaningful role and no way to grasp what a meaningful role might be.

Rather than break up the knitting frames, citizens must find a way to achieve relevance for the majority. There are thoughtful movements such as DeGrowth advocating a new trajectory for consumption. See DeGrowth linked from the CURRENT PERSPECTIVES page at www.emrisse.com

There are a growing number of articulate spokespersons who are attempting to address the traps into which humans have backed themselves. One example is Kirkpatrick Sale's "secession solution" to dysfunctional governance structures.

See <http://www.utne.com/Politics/Argument-for-Secession-Kirkpatrick-Sale.aspx>

The number of voices trying to articulate solutions is overwhelming. A central problem is that most have an 'idea' but do not articulate the steps necessary to place their idea in a realistic economic, social and physical context.

The following is an excerpt from Chapter 36 ("Fireside Reading) of *TRILO-G*.

"Hawken, Paul. *Blessed Unrest: How the Largest Social Movement in History Is Restoring Grace, Justice, and Beauty to the World*, (2007). Hawken's book is about the New Fourth Estate but he provides no overarching structure or strategy. The temperature

is rising, the pressure is increasing but having a pressure gauge is not enough. Random acts of intelligence are not enough.”

Since the publication of Hawken’s book EMR has noted a growing number of thoughtful and useful books that have this same affliction. This issue will be addressed in *HALFWAY OUT OF THE CAVE* (Forthcoming).

Of the new voices ‘out there’ one of the most comprehensive is The New Economics Institute. Perspectives from this Institution are quoted in the following section.

What is needed is a middle ground between Business-As-Usual and Neo Luddism (or worse, Anarcho-primitivism.) The DeGrowth movement noted above and The New Economics Institute appear to be the closest to charting that important territory.

A broad consensus on a ‘third way’ could lead to evolving a sustainable trajectory that can retain MOST of the benefits of the current technology-based society by jettisoning the most consumptive elements – e.g. Large, Private Vehicles and dysfunctional human settlement patterns.

The alternative may be a prolonged period of global strife that AT BEST ends with a New Bronze Age and AT WORST with a repeat of the old Stone Age that was predicted by Albert Einstein as the likely consequence of all out thermonuclear war.

A Last Word on Technology. Before closing this section on technology, let us be very clear:

This section is NOT about a catastrophic failure of technology, as portrayed in *When Technology Fails* and other survivalist hand books. This section is about the speed and impact of further technological ‘progress’ as envisioned by those who see Technology as a savior of human society and an excuse for not arriving at consensus on strategies to achieve a sustainable trajectory for civilization that avoids mass killings.

For an eye opening view of those who HATE technology and the changes it has wrought, Google *When Technology Fails*.

It would appear that there are as many citizens who see the END of technology as a welcome relief from ‘modern times’ as there are touting technology as paving the path to the future.

The difference is that those who are touting technology have been, or plan to, be making a lot of money by promoting accelerating consumption of depleted resources. When the reality of NOT ENOUGH becomes widely understood the anti-technology cohort will swell. The question is what will be the Agenda of the technophobes? See Chapter Eight – The Bottom Line.

SELFISHNESS AND GREED BORN OF EXCESS AND SLOTH – THE FALLACY OF COMPOSITION

Finally we come to the last and most complex of the topics related to predicting the shape of the future. See **End Note Nine**

This section is a rough draft annotated outline of topics central to the exploration of Selfishness and Greed. Also see *TRILO-G* – PART SEVEN – Chapter 24, “Greed, Excess, Ignorance, Myths, Entitlements, Windfalls and Subsidies: Widening the Wealth Gap and Paving the Road to Entropy and Chaos.”

N.B.: If there are too many topics in this section that are not yet fleshed out to suit the reader, please move on to Chapter Eight – The Bottom Line.

While Chapter Eight addresses many human genetic proclivities (xenophobia, paranoia, alienation, insolation and counter-productive competition to name a few) it can be argued that selfishness is at the root of them all.

Selfishness is a many splendored thing, especially in the hands of economists, agents and others who are well compensated by Business-As-Usual Agencies, Enterprises and Institutions.

It is appalling that the most pampered cohort from three of the most fortunate generations that have ever walked the face of the Earth do not want to get off the back of the Tiger of Mass OverConsumption. This cohort has enjoyed the most consumptive existence in the history of Homo sapiens. They are spoiled and want to continue to be spoiled – at the expense of whom so ever gets in their way. As suggested in Chapter Eight – The Bottom Line, that is not possible.

The Context. The current economic system – Centralized Capitalism or SuperCapitalism – is stacked to produce unsustainable growth. Advertising driven by advanced psychological science and consumer targeted infotainment is producing generations with ‘popcorn brains’ that expand Mass OverConsumption.

The New Economics Institute and its work are inspired by Fritz Schumacher, author of *Small is Beautiful: Economics as if People Mattered*. The following material is quoted from the 15 July 2011 New Economics Institute newsletter outlining the Institute’s celebration of the 100th Anniversary of E. F. Schumacher’s birth. The quoted material is from “The Relevance of E. F. Schumacher in the 21st Century” by John Fullerton.

“Our global economic system is broken not because of the credit crisis; it is broken because it is predicated on perpetual, resource driven growth with no recognition of scale limitations.”

“What we are not hearing, at least in the mainstream media, is a critical reframing of the questions that address root causes. . . . We are not hearing a debate about the sustainability of a perpetually growing global economic system nested within our finite biosphere. We are not hearing a debate about the wisdom of allowing financial power (and systemic risk) to be increasingly concentrated in the hands of a few financial institutions of increasing complexity and scale. We are not publicly questioning the wisdom of the system we have allowed to evolve in response to capital's quest for ever increasing financial returns. Nor are we debating where to look for creative responses.”

What we ARE hearing from Enterprise Media and from the Institutions supported by Business-As-Usual are just bromides such as:

- The problem is BIG government – rather than BAD governance and dysfunction governance structure
- The problem is failure to honor the Constitution – by those who have NO idea what the Constitution actually says or what the framers intended with respect to future changes to reflect changed conditions
- The problem is we need more incentives for the rich to ‘invest’ – rather than creating ways for citizens to invest in, and prosper in their Neighborhoods, Villages and Communities

What is needed to counterbalance this flow of self-serving propaganda from Enterprise Media is a REAL voice for citizens and their Households – true Citizen Media. See CITIZEN MEDIA, THE NEST STEP.

The Fallacy of Composition. Those who are identified in a later subsection as “The ‘Freedom,’ ‘Rights’ and ‘Liberty’ Cohort often ask:

“What is wrong with investing in hedge funds or in Brazil or China, rather than in my Neighborhood, Village and Community if I get the highest return there?”

And

“What is wrong with doing exactly what I want on land?”

The problem with EVERYONE doing what they think is best for themselves in the short run is this:

The cumulative result of all the ‘best for ME’ actions is often detrimental to the communities upon which humans depend for economic, social and physical sustenance and existence.

This reality has a name:

The Fallacy of Composition: *What is good for one is not good for all.*

The Fallacy of Composition presents a profound conundrum in a democratic society with a market economy: How does society promote the economic initiatives of some without destroying the communities at all scales upon which all human life depends? The answer is by creating Balance. The Fallacy of Composition is discussed in *THE SHAPE OF THE FUTURE*.

No human society has survived with everyone doing what ever they wanted, when they wanted without regard to the impact on the community. See **End Note Ten**

For 8,000 years Urban societies have had peer pressure, customs, edicts, laws, constitutions, rules and regulations as well as a governance structure to enforce the basic parameters of civilization.

In a complex Urban society, the cumulative impact may be difficult to determine. However for example:

- If ‘everyone’ invested in hedge funds and in Brazil and China, there would be no investment in facilities for heath, safety or welfare of citizen except in Brazil or China.
- If everyone did what every they wanted to do on their farm, 1) without a fair allocation of costs, 2) without regard to the impact on adjacent owners, and 3) without regard to the cumulative impact on all the communities of interest that are impacted by the activities on that land, there would be dysfunction in the Countryside and in the Urbanside.

To paraphrase John F. Kennedy:

Ask not what you can get from others – or how you can avoid paying for the costs of living in a complex set of communities – ask what you can contribute to sustainable Regions composed of Balanced and Resilient Communities.

Investment vs Speculation. One of the most important steps to establish a sound basis for human economic activity is to sort out the difference between ‘investment’ and ‘speculation’ (aka, gambling). The Long Depression was caused by speculation during the apex of the tumultuous transition from an agrarian society to an Urban society. The Great Depression and The Great Recession were triggered by speculation. The forces outlined in Chapters One thru Six signal a Fundamental Transformation similar to that experienced during The Long Depression AND there is continuing rampant speculation.

The parameters of the difference between investment and speculation involve both timing and LOCATION as documented in *THE SHAPE OF THE FUTURE*.

The Real Moral Consequences of Economic Growth. There should be no confusion about the long term consequences of continued exponential growth of population and consumption. There is continuing confusion about the benefits of ‘economic growth.’

On one side is Benjamin M. Friedman with *The Moral Consequences of Economic Growth*, (2005). This exhaustive study attempts to justify why the activities that expanded the Wealth Gulf REALLY DID benefit everyone (note PAST tense). In *Deep Economy*, McKibben lays to rest any doubt that in a finite world with dwindling resources the ‘moral’ consequences are the opposite of what Friedman claims. The Arab Spring and the other forces laid out in Chapters One and Two put an acclamation point on McKibben’s arguments.

Paying One’s Fair Share. The idea that tax cuts for the rich will solve anything is tragically flawed. That has been clear since the onset of The Great Recession. Actually, the Wealth Gulf documents that tax cuts for the rich has been a tragically flawed ploy to generate political contributions from the outset. The three presidents who championed this tax cuts for the rich over the past 31 years have raised the federal debt – and the debt limit – far more that those who supported a more Balanced approach to revenue generation. During this time of profligate Agency spending, the Wealth Gap became the Wealth Gulf.

The strategy of tax cuts for the rich is based on the premise that these cuts will induce those at the top of the Ziggurat to spend and thus ‘grow the economy.’ That is foolish because ‘the rich’ will only spend on things that ‘grow the economy’ if they think they can get EVEN RICHER at the same time (that is, widen the Wealth Gulf).

Tax cuts for the rich is an absurd concept when there is NOT ENOUGH and the Wealth Gulf is widening. See Chapter Eight – The Bottom Line.

New research on the perspective of those who have net worth of over \$10 million makes the futility of tax cuts for the rich abundantly clear. It is also clear that those who earn \$250,000 or more have the same outlook as those who have already become wealthy.

During the second week of July 2011, a CNN pole indicated 78 percent of over 200, 000 respondents favoring the Bush tax cuts for those earning over \$250,000 be allowed to expire as part of the move to balance the budget. Note this is NOT a tax increase (even Grover Norquist admits that), it is the expiration of yet another tax break.

The Difference Between Agency Deficit and Raising the Funds to Meet Citizens Needs. Neil Irwin articulated very well the difference between the federal deficit and spending money to meet citizen needs in *WaPo* (Page 4 of the 17 July 2011 Business – Truth Number One of the “5 Truths about Deficit and Debt.”)

The reason that infrastructure is falling apart, that there are few new jobs and that the value of citizens investment in their dwellings continues to sink has NOTHING to do with the current size of the deficit in absolute terms or as a percentage of GDP.

The reason that the US ranks between 25 and 45 among ‘developed nation-states’ in most categories measuring quality life – quality of health care, longevity, educational achievement, leisure time, happiness, per capita consumption, etc. – has NOTHING to do with the current size of the deficit in absolute terms or as a percentage of GDP.

The problems citizens face derives from Agencies spending money on the wrong things AND not collecting enough revenue to pay for the TOTAL needs of technology-based contemporary society.

The Failure to Evolve Functional Governance Structures. Spending on the wrong things as well as not collecting enough to pay the full cost of contemporary society AND having to raise the debt limit are due to the same root problem:

Failure to evolve governance structure so that the structure of Agencies reflects economic, social and physical reality.

Citizens must create a more responsive governance structure and put the level of decision at the level of impact. See **End Note Eleven**

Citizens must evolve Agencies that are directly responsible to citizens at the levels that reflect economic, social and physical reality in 2011, not the levels and scales that were “good enough” in 1790 when the economy was agrarian, there 4 million human residents – most of them NOT citizens – and it took two to three weeks to get a person or a letter from Charleston Richmond to Boston.

Narcissism. *Utne Reader* devoted the multi-article cover feature of the May - June 2011 issue to the topic of ‘narcissism’ – “Enough About You: Meet the Me, Me, Me Generation.” It might seem like a strange topic until one considers the “me, me, me” ramifications of the current views of ‘freedom’ in the context of an Urban society which is discussed below.

Corporate Responsibility. It is easy to slide from intelligent Enterprise strategies to bold entrepreneurship to speculation to greed.

There are major downsides to blurring the lines between Enterprises and Institutions by creating dual purpose corporations that by charter can devote some of their resources to ‘the public good.’ See Robert Reich on the issue of ‘corporate responsibility’ in *Supercapitalism* also see definitions of Agency, Enterprise and Institution in GLOSSARY.

Objectiveism. The recent psychological (but not moral or philosophical) basis for considering economic selfishness as a virtue can be traced to the work of Ayn Rand. Many got a rush from reading *The Fountain Head* and *Atlas Shrugged* in high school. Now it is time to grow up and realize that *For the New Intellectual* should have been titled *The Selfish Persons Handbook*.

Free Market Environmentalism. There are many variations on the theme of selfishness. One of the more interesting ones that impacts human settlement patterns outside The Clear Edge around the Cores of New Urban Regions is Free Market Environmentalism (FME). FME is promoted by the Property and Environment Research Center (PERC) in Bozeman, Montana and a supporting cadre of university and belief-tank economists around the country.

First, “Free Market Environmentalism” is a catchy oxymoron. If a good or service is ‘free’ there is no ‘market.’ If there is a ‘market’ the good or service is not ‘free.’

There ARE ‘benefits’ of Market Environmentalism (ME). If one drops the “free” (the ‘F’) to avoid the oxymoron and then the acronym says it all – ME. ME fills books, reports and right-wing talk shows. However, ME only works ONLY for land and relationships involving goods and services for which a specific party is willing AND able to pay – hunting rights, fishing rights, water for irrigation, etc.

Concerning ‘public goods’ for which no specific beneficiary can be identified and charged – for example Region-wide healthy air quality, the basin-wide slow release of rainfall into streams that is necessary for the maintenance of dry-season stream flows, unpolluted aquifers and ground water, lower ambient temperatures, etc. For these and other important objectives ME does not work well.

At last PERC is addressing this fundamental reality. See “The Promise and Problems of Free Market Environmentalism,” Prof. Charles D. Kolstad. *PERC Reports* Summer 2011. This issue is also addressed in THE USE AND MANAGEMENT OF LAND – PART FOUR of *TRILO-G* in the context of extensive land holdings which provide no immediate benefit that individuals or small groups are willing and able to pay for.

The Freedom, Rights and Liberty (FR&L) Cohort. The ‘freedom’ and ‘liberty’ desired by some are often predicated on depriving others of equal freedom and liberty. Otherwise why would anyone object to the exercise of freedom and rights by those who feel their interests are being infringed upon?

The ‘rights’ about which most in the cohort get agitated about fall into three categories:

- Rights that never actually existed
- Rights that have fundamentally changed due to the transition of an agrarian society to an Urban society

- Rights that are Based on Myths Related to Land Speculation

Many times one finds that the ‘rights’ never existed and are based on Myths. A quick way to put many of these Myths in context is to review what residents of Urban areas were permitted to do 200, 500 or 1,000 years ago. The laws (and punishments for breaking the laws) for Urban enclaves in Elizabethan England is a good place to start.

In a few cases the ‘rights’ that may have existed – tossing garbage out the window of tenements – at one time but at some point became incompatible with functional Urban civilization that depends on sharing and shared responsibility.

Perhaps the most confounding ‘non-right’ that impacts evolving dysfunctional human settlement patterns is based on the Myth that any place (and recently any place one can drive a car) is a suitable place for an Urban land use.

The speculative rights in land, specifically the right to convert NonUrban land to Urban land uses without paying the full location-variable costs is not a ‘right.’

Who is Paying the Bills for the FR&L Cohort? A critical question is who is financing the ‘freedom,’ ‘rights’ and ‘liberty’ movement? There is a spectrum of prototypes:

At one end the small donors and volunteers. Those are the folks who think that some ‘THEY’ is attempting to steal MY ‘freedom,’ ‘rights’ and ‘liberty.’

At the other the other end of the spectrum are those who use the ruse of ‘freedom,’ ‘rights’ and ‘liberty’ to gain control. These are fascist in liberty drag.

Fascist never say “we plan to enslave you and turn you into robots of state control.” They say: “We are going to insure your ‘freedom,’ ‘rights’ and ‘liberty’ and give you and others who agree with us the power to thwart those OTHERS who are trying to take your ‘freedom,’ ‘rights’ and ‘liberty.’”

The FR&L rhetoric is appealing but who is paying the bills for the furor over ‘freedom,’ ‘rights’ and ‘liberty’? It is not the naive placard carriers, it is those who have a lot of money and a lot to gain from Business-As-Usual.

Often cited are Richard Mellon Scaife, the Koch brothers – Charles and David and others. They and others speak through foundations and the belief tanks they fund. These Institutions hire True Believers, scribes and talking heads to produce and disseminate the FR&L message.

There are others who are triple threats. They are successful ‘entrepreneurs,’ articulate spokespersons AND True Believers.

The Filter Bubble: What the Internet Is Hiding from You by Eli Pariser provides insight into

their thinking. See **End Note Twelve** To provide a window on the motivation of the founders and directors of Mega Filter Enterprises, Pariser provides quotes from a “Cato Unbound” column by Peter Thiel a director of Facebook titled “The Education of a Libertarian.”

Among other things, Thiel states that he believes “freedom and democracy are no longer compatible.” He laments that there are too many beneficiaries of resources – especially welfare recipients and women – and believes there is “little hope that voting will make things better.”

If every one does not get chance to vote and does so, then what? A dictatorship by Technology Kings? Thiel’s writings give one the eerie feel that he hopes to cash in on The Singularity discussed in the prior section.

The path to a sustainable trajectory for civilization is via democracy and informed markets. It will not result from actions of uber-humans who beckon down a dimly lite road with signs that say “FR&L This Way.”

The Constitution as a stalking horse.

In the 7 Feb 2011 issue of *The Nation*, Garrett Epps provides a chilling report on ‘educational’ programs concerning the US Constitution titled “We the People: The far right has stolen the Constitution. It is ours to take back.”

In 1780 there were about 4 millions residents in the original 13 US states. They has an effective literacy rate of about 10 percent. Most were not citizens. Non-citizens included women, indentured servants, slaves and ‘native Americans.’ In the first draft of the Declaration of Independence, Thomas Jefferson call the residents ‘subjects.’ The US is now heading for 400 million residents with a functional literacy rate of 80 percent and almost all of them expect to enjoy the fruits of citizenship. In this context, two interesting questions are:

- 1, Did the Founding Fathers have ANY IDEA that in 1776 they were initiating THE Fundamental Transition between societies controlled by the Three Estates of the Realm that had evolved over the prior 472 years on the one hand and on the other hand the Four New Estates that are still evolving today? See THE ESTATES MATRIX
2. In 2011 is there ANYTHING tangible remaining from the time of the revolt of an agrarian society that was placed in the Constitution that should not be subject to a careful review to insure it is relevant to evolving a sustainable Urban society governed by democracy and relying on informed markets to allocate resources?

Many of the attributes that were considered to be exemplars of FR&L in 1776 are now obstacles to evolving a sustainable trajectory for 6.7 billion humans on the finite planet. The need for review of theses and principles is due to the fact that past resources have been squandered through speculation, wasting natural capital, greed and the concentration of power in Big Organizations – Agencies, Enterprises and Institutions.

These forces have led a Mass OverConsumption, a widening Wealth Gulf and deteriorating health, safety and welfare exacerbated by eroding educational and economic opportunities.

Libertarians. In a recent comment at www.baconsrebellion.blogspot.com an anonymous blogger 'Observer' noted that it is a disservice to call those who have call themselves 'libertarians' without defining their place in the FR&L Cohort

Observer suggested that 'libertarians' are 'radicals' and are better classified as Anarchists.

Observer suggested that everyone who labeled themselves as 'libertarian' is either a Conniving Anarchist or a Selfish Anarchist. That may not be how individual 'libertarians' they view themselves but it is a derivative of the genetic proclivities that have evolved with humans to date.

Selfish Anarchists are not to be confused with Conniving Anarchists. Conniving Anarchists use words like "freedom," "rights" "liberty," "traditional values," "no taxes," "minimum government" and "god's will" as smoke screens to gain control over others. They may seek control at the scale of the Household (families) or at any larger scale from Cluster to continent.

Conniving Anarchists are in fact anti-democratic fascists in liberty drag. Some may look forward to The Singularity, others to good old fascist dictatorships. See quotes of Peter Thiel above.

Selfish Anarchists are less dangerous but contribute to the barriers to evolution of a functional and stable civil society by propounding simplistic bromides. Selfish Anarchists espouse 'radical' but superficially attractive sounding ideas. They often use the words "freedom," "rights," "liberty," "traditional values," "lower taxes," "smaller government" and "the market" in the articulation of their ideals.

For Selfish Anarchist there is always, at the core, an underlying two level premise:

One level can be summarized by:

"If I do not spend ANY of my resources on others in my Dooryard, my Cluster, my Neighborhood, my Village or my Community there will be MORE FOR ME."

And a second level by:

"If I get there first and establish a dominate position then others have to pay me."

A less aggressive way to put this view is:

“I worked hard to get here, ‘they’ need to work just as hard as I did.

These words are often spoken by those who are living off a trust fund, got a legacy scholarship or a job from dad’s company.”

The Selfish Anarchist relies on being a parasite, contributing only to those activities that directly and immediately benefit ME. ‘ME’ in this context is derived from both narcissism and Market Environmentalism.

The ME strategy is, of course, unsustainable. If a majority adhere to Selfish Anarchism the society Collapses.

Selfish Anarchists suffer from the same problem as both the Walking Backwards into the Future futurists who create bionic super-persons and the Technology uber alles crowd.

The question is:

What percent of the population does Selfish Anarchism help and what happens to the rest?

To repeat the question raised earlier, in this context, what does one do with the vast majority who not are able to compete in contemporary society but have consumption expectations based on jingoistic, pandering politicians promises and victims of pressure advertising?

- Drug them (*Brave New World*)?
- Brain wash them (*1984*)?
- Provide Bread and Circuses?

As discussed in the Technology Will Save Us section above, all these options are very expensive when one must drug, brainwash or provide bread and circuses for from 60 to 90 percent of the population.

NOT ENOUGH is the reason the end is in sight for profound technological advances. Selfish Anarchists come-a-cropper via the same path. Humans cannot maintain a democracy with an informed market to allocate resources if a large minority, much less – as it the case at the present – a majority are losing ground.

Selfish Anarchists wail about big government and want to “starve the beast” but offer no specific strategies. They are hoping that they can benefit from picking through the pieces that survive the Collapse.

Education. As suggested in *THE SHAPE OF THE FUTURE*, the silver bullet is citizen understanding. That understanding requires the emergence of Citizen Media and an education process to lead citizens from 1) Awareness, to 2) Interest, to 3) Understanding to 4) Action.

The existing public education system provides as classic case study of how far citizens and their Organizations are from where they need to be. The two dominate political Clans have not allowed the governance structures to evolve to reflect economic, social and physical reality of contemporary civilization over the past 190 years. For this reason, the education system that is needed to create the broad understanding that citizens need to navigate an ever more complex society has gotten progressively more dysfunctional.

As a result, more and more citizens are ‘falling off the back of the wagon.’ That makes them a clear target for ridicule by Selfish Anarchists.

“Why should I pay for those who do not have the attitude and skills to support themselves?”

“If they cannot pull their own weight, why should I help them with my hard earned ME resources?”

A better allocation educational Agency responsibilities based on scale is quite simple. In *THE SHAPE OF THE FUTURE* it is suggested that EVERY school should be run by an Agency be scaled to the service area of the students. Competition among schools in a Village and in a Community – from spelling bees to soccer matches – along with democratically determined standards at all scales – will insure beneficial life-long learning experiences. **See End Note Thirteen**

Eating the Seed Corn. The work of SYNERGY repeatedly documents that humans are NOT paying the full costs of their actions. We are all living off Natural Capital, eating the seed corn – use ever the metaphor one likes best to describe an UNSUSTAINABLE TRAJECTORY.

“Individual economic liberty” is yielding community servitude. All humans live in multiple communities that grow poorer by the day while a few at the top of the Ziggurat grow richer by the day. This is called the Wealth Gulf.

One Final Note on Selfishness. There are very few Mahatma Gandhis. And in most contexts, Mahatma would just be ridiculed anyway.

There must be a significant cohort (a Critical Mass of ‘the willing’) who have gotten to Step 3) Understanding and are ready for Step 4) Action before almost anyone will give up their BMW, their Rolex or their iPad. Actually, no one has to give up anything. For the next decade they just have to be able to not rely on the BMW to meet there Mobility and Access needs.

That is why starting at the Dooryard, Cluster and Neighborhood scale is so important.

There are two sources that set the stage for considering Selfishness as a primary driver of those at the top of the Ziggurat.

In *WaPo* for 31 July 2011 there is a concise 10 point list of things to REALLY worry about concerning the evolving financial crisis. This column puts the roll of ‘financial markets’ in proper perspective. The column is on Page G6 in the Business section. It is Barry Ritholtz’s “On Investing” column titled “10 Lessons on the crisis beyond the debt ceiling.”

While the book has not yet arrived there is also in the 31 July 2001 *WaPo* there is a review titled “America gambled on greed – and lost” of Jeff Madrick’s new book *The Age of Greed: The Triumph of Finance and the Decline of America, 1970 to the present*. If the review is on target, this book is a primer on Ritholtz’s conclusions.

CHAPTER EIGHT – THE BOTTOM LINE

Beta 3 Chapter Eight puts forth the summation of ENOUGH? to date.

“The Bottom Line” was first articulated in Chapter 34 of *TRILO-G* (January 2010). Since that time “The Bottom Line” has evolved. Earlier versions are laid out in several Perspectives – for example in Chapter One of the 24 March version of *CITIZEN MEDIA, THE NEXT STEP*. This version (Beta 11) is expanded to reflect the reality of ENOUGH?.

THE THESES

On a small planet with Global economic, social and physical interconnections among Urban citizens, GROSS INEQUITY at the SubCommunity-, Community-, SubRegional-, Regional-, MegaRegional- and continental-scales OR between ethnic and religious groups is NOT sustainable.

All citizens must have the opportunity to prosper based on effort, ability and acceptance of responsibility for their actions – individual and collective. Success cannot be based on gambling, happenstance and inheritance or on inequitable distribution of resources and opportunity.

AVOIDING COLLAPSE

Collapse is used in this Perspective as defined by Jared Diamond in *Collapse: How Societies Choose to Succeed or Fail* (2004). Avoiding Collapse of human civilization as it has evolved to date – and the survival for Homo sapiens comes down to understanding that:

In a ‘flat world’ where the majority of the citizens live in Urban Households with:

- wide-spread literacy,
- Global and instant communications / information dissemination, and
- Wide distribution of weapons of mass destruction / massive stockpiles of weapons of conventional destruction / ubiquitous access to weapons of inter-personal destruction:

There is no alternative but to make Fundamental Transformations of governance structure (Agencies) that will enable and facilitate Fundamental Transformations of human settlement patterns and economic systems.

The unrest / riots / revolutions that started in Urban agglomerations in Tunisia and spread to Urban agglomerations in Egypt and now reach far beyond, makes the need for Fundamental Transformations crystal clear. The conflicts known at The Arab Spring were caused by economic, social and physical dysfunction in societies with Urban citizens, many of whom are educated, more who are literacy, and most of whom have access to instantaneous global communications as outlined in Chapters Three and Four.

Fundamental Transformations in governance structure can facilitate evolution of Fundamental Transformation of humans settlement patterns and of economic systems. These three Transformations are imperative if citizens are to achieve a sustainable trajectory for their civilization.

GENETIC PROCLIVITIES

The question remains:

Will the genetic proclivities toward acquisition, consumption, competition, paranoia, alienation, insolation and xenophobia that got Homo sapiens to this point in their evolution prevent the emergence of an Urban society with a sustainable trajectory?

Will human beliefs and superstitions that have become hardwired into society thwart evolution of a sustainable advanced-technology based civilization, or even a stable New Bronze Age or will they result in the end of human society as has evolved over the past 13,000 years? See *Blink* by Malcolm Gladwell.

Will those at the top of the economic food chain realize they must close the Wealth Gulf to survive?

Will humans learn to share at all scales?

If they do, there will be ENOUGH, if not...

(More perspectives on genetic proclivities will be included in a future chapter of ENOUGH?)

CONCLUSION

The conclusion of this Perspective is NOT different from that spelled out in *THE SHAPE OF THE FUTURE* (2000).

The current Perspective is NOT at variance with what was articulated in *TRILO-G* (2010).

The events to Mid-2011 make it more clear and easier to understand.

The Question is: Where to from here? This question will be addressed in future chapters but for starters:

- Establish Citizen Media
- Work to end the causes of terrorism
- Start to fairly distribute the full location-variable costs of all goods and Services by doing away with flat fees and most general taxes
- Stop the subsidy of Business-As-Usual
- Eliminate opaque governance processes and Agency secrets

The developed (rich) Regions must lead by example with respect to consumption and population.

The developed (rich) Regions cannot use their existing advantage to game Global economic, social and physical relationships.

To support these first steps citizens must understand the need for Fundamental Transformation of human settlement patterns, governance structure and economic systems.

ROUGH DRAFT NOTES ON FUTURE CHAPTERS

THE MIRAGE OF 'RECOVERY'

What comes after The Great Recession? Will there be a double dip? Is The Great Recession just the first stage of a 'lost decade,' a reprise of The Long Depression (1873 to 1896) or something much worse?

The Wealth Gap widened DURING The Great Recession. Most of the Recovery to date (July 2011) has benefitted those at the top of the Ziggurat.

The majority of the Recovery has come from stimulus by the US, the EU and by China. In the US, consumption has been driven by advertising of 'bargains' to entice those who have money to spend it on things they do not need and by squeezing the consumer with bigger toilet paper tubes and smaller boxes of products for the same price.

Will The Great Recession and the loss of value of dwelling values and the threat of the loss of 'entitlements' real (health care) and imagined (freedom) lead to populist demagogues? Is the solution 'less government' or better governance through Fundamental Transformation ?

IMMEDIATE ACTIONS

How to get off the Tiger of Mass OverConsumption with out causing economic Collapse.

Taking Stock and Taking Action

Savings vs Debt

Reference to forthcoming Perspective WHAT COMES AFTER THE CAR?

IN THE LONGER TERM

There must be a profound Transformation from a Global 'growth' economy to new Community and Regional economies that Balance consumption with resources and Balance competition with cooperation and sharing. See NEW METRIC FOR CITIZEN WELL BEING – PART FIVE of *TRILO-G*.

More on The New Economics Institute and the DeGrowth movement.

Reference to forthcoming Perspective, HALF WAY OUT OF THE CAVE.

Advertising: After the Age of Excess and Mass OverConsumption there will be no need for Advertising to drive consumption. Citizens will base consumption on what is NEEDED not what is wanted. See “Living with the iWant impulse.” *Cheap, The High Cost of Discount Culture* (Ellen Ruppel Shell, 2009). In fact see all the volumes in “The Alpha Community Reading List” linked from the CURRENT PERSPECTIVES page at www.emrisse.com

GENETIC PROCLIVITIES

See end of Chapter Eight

See “Bad Daddy”

Child bearing, smoking, food labeling

84,000 chemical compounds used in consumer products with unknown impact on individuals or the environment.

Reference to forthcoming Perspective THE LAWN PEOPLE

EDUCATION AND SELF INTEREST

Reference to forthcoming Perspective PRIMER

Exploration of Citizen Media

APPENDIX ONE

APPENDIX ONE is Chapter 5 Box 1 from *THE SHAPE OF THE FUTURE*.

HOW MUCH IS ENOUGH?

Impacting prosperity, stability, and sustainability are three profound forces: Population (Chapter 8), Technology (Chapter 10) and Consumption. Of these, consumption is the most difficult to rationally address.

Allen Thein Durning considers consumption in the book titled *How Much is Enough? The Consumer Society and the Future of the Earth*.

Durning divides the world's 6+/- billion population into fifths. The top one-fifth, 1.2 billion people, he calls 'consumers.' The 1.2 billion comprising the lower one-fifth he calls 'poor.'

The 3.6 billion 'middle-income class' does not play a particularly important part in the issue of consumption because most of the consumption in the world is carried out by the 1.2 billion richest residents, who are primarily citizens of the First World. They represent over 30 times the income—and therefore consumption power—as the poorest one-fifth.

The poorest one-fifth make a significant contribution to environmental degradation because of their role in deforestation (slash-and-burn agriculture) and desertification (overgrazing). It is, however, the 1.2 billion consumers at the top that are of primary concern with respect to consumption. They consume the lion's share of both renewable and nonrenewable resources. They do not, however, exercise the lion's responsibility for balancing the supply of those lower in the economic food chain—except by starving them. In addition, they set a quality of life 'goal' to which the other 4.8 billion aspire.

There are few disagreements with the numbers that Durning puts forward. Most citizens, in the abstract, would agree that the upper one-fifth need to consume less. Their consumption patterns need to be more like the middle 3.6 billion residents, who have far less impact on nonrenewable resources.

The question is, how do you convince the 1.2 billion richest to consume less? Of the 270 million of those 1.2 billion citizens who live in the United States, it is the richest 20 percent who consume the most. They set the standards to which the majority in the United States, the rest of the First World, and via the global economy, the rest of the world, strive.

First, there is the issue of human nature. Durning quotes Aristotle: "The avarice of mankind is insatiable." Second, there is the economics of consumption. Consumption is now the primary engine behind the prosperity of the First World.¹²

Chapter 5 Box 3

END NOTES

1. See work of Professor Albert Bartlett of the University of Colorado noted above.
2. For data and perspective on the unsustainability of the Wealth Gulf See *Supercapitalism* by Robert Reich. For recent data on the US Wealth Gulf see Whorisky, Peter “Income gap widens and executives prosper: Poll finds Americans uneasy as income inequity increases.” *WaPo* 19 June 2011.
3. The World Watch Institute has published the annual *The State of the World* volumes for decades. Few have paid attention to the declining vital signs of the planet. Herman Daily and other advocates of ‘a steady state economy’ and many others have been saying since the 60s in one way and another that there will NOT be ENOUGH if humans try to maintain the current trajectory. Recently they have been joined by The New Economics Institute, the DeGrowth movement profiled in DeGrowth SHRINKING TO SURVIVE AND THEN PROSPER on the *CURRENT PERSPECTIVES* page at www.emrisse.com
4. To prepare for understanding THE BASICS and future chapters in the ENOUGH? Perspective, one can start with *Guns, Gems and Steel* by Diamond, *Dark Age Ahead* by Jane Jacobs. One can also review *FOUNDATIONS*, the first five PARTS of *TRILO-G*.

ROOTS OF THE HELTER SKELTER CRISIS: Abandonment, Scatteration and the Myths That Drive Them

THE ESTATES MATRIX: 700 Years of Profound Transformations and Estate Conversions

THE PROBLEM WITH CARS: The Space Hogging Jalopy

THE USE AND MANAGEMENT OF LAND: Happiness, Safety and Prosperity in the Countryside and in the Urbanside - Moving Beyond the Helter Skelter Crisis

A NEW METRIC FOR CITIZEN WELL BEING: The End of Politics-As-Usual

5. When the uprisings spread from Tunis to Cairo EMR told his very best friend, partner and wife that the events now unfolding across North Africa and the Middle East would prove to be the most important in 70 plus years. Every day that assessment seems more well founded as noted in Chapters Three and Four.

Why, she asked, are the uprisings the Urban regions of Tunis, Cairo, Alexandria that spread to Algiers, Tripoli, Benghazi, Sabratha, Beyida, Misurata, Manama, Kuwait City, Sanaa, Aden, Djibouti, Amman, Bagdad and Tehran so important?

For many reasons noted in this Perspective but mainly they are important because the result of these revolts will cause humans across the globe to face the fact that upon the current trajectory, there is NOT ENOUGH.

6. Are “the urban revolutions you describe ... driven by a desire for higher standards of living, presumably that people see on their TV screens of reruns of CSI-Miami or whatever they watch over there. Is it not possible that the revolts are driven by anger at rampant corruption, injustice and voicelessness in society, in other words by non-material factors?

An argument can be made that many Middle Easterners believe that the old institutions (governance systems) do not work and want to build new ones. I suppose it is implicit that people hope to get a higher standard of living out of the deal, not a lower one. But I don't hear people rallying around the cry, "We want more stuff!"

7. Other examples of FOUNDATION Perspectives are:

- 1) The five FOUNDATION Perspectives that comprise the first PART of *TRILO-G*,

- 2) the recent Perspectives linked from the *CURRENT PERSPECTIVES* page at www.emrisse.com such as CITIZEN MEDIA, THE NEXT STEP, or

- 3) the Perspectives that are now evolving such as HALF WAY OUT OF THE CAVE, WHAT COMES AFTER THE AUTONOMOBILE and ANTIPARTISANSHIP outlined in the 2011 SYNERGY PROJECT SUMMARY also accessible from the *CURRENT PERSPECTIVES* page linked above.

8. “I can think of only one strain of thought to contradict your thesis, and that's the Ray Kurzweil "The Singularity Is Near" idea that the geometric rate of progress in semiconductors, artificial intelligence, the human genome, robotics, etc. will, in the next 30 to 40 years, make possible an unprecedented wave of wealth creation. Humans (or their machines) will get so smart that we'll find ways to solve our problems in ways that we cannot imagine now. I do think Kurzweil describes an important variable in the equation, although I think he dramatically overstates the case. A more modest line of argumentation is that technological progress will create possibilities for solving problems that we do not see today. Will that be sufficient to overcome the forces of inertia such as the continued draw-down of Natural Capital and the massive misallocation of financial capital resulting from bubbles and flawed public policy? Can it save us from the twin looming disasters of *Boomerageddon* and environmental collapse? I'm not terribly optimistic, although I would say that I'm less pessimistic than you.”
9. Articulation of the last sphere of future confusion grows out of several conversations with two anonymous bloggers ‘Observer’ and ‘AZA’ who sometimes comment at www.beconsrebellion.blogspot.com. They are both profoundly disturbed by the

'libertarian' hocus pokus that is spilling out of think tanks well funded by the Business-As Usual crowd. This section summarizes these discussions without attributing specific ideas to any of the discussants.

10. Hunter gather clans, bands and tribes had (and have) practices and customs as well as a governance structure to enforce them. Those who acted to the detriment of the community were left outside the compound for the lions.

Agrarian societies had (and have) rules and customs as well as a governance to enforce them. In a fair society, those who act (acted) to the detriment of the society are (were) punished in proportion to the transgression. In other societies, there was no telling what the result would be.

11. Where there is more than one level of impact then there must be shared responsibility not highest rules. Highest rules results in campaign money getting funneled to the highest level and obliterating transparency and accountability as well as citizen ownership of governance.

12. The focus of *The Filter Bubble* is the filtering of information and the presentations of ads to drive consumption. Google, Facebook and similar Enterprises are the focus of inquiry. In describing who is behind the Mega Filters the book briefly profiles the directors of Facebook who influence the founder Mark Zuckerberg?

13. Under the system outlined in *THE SHAPE OF THE FUTURE*:

If a Cluster pre school turns out disruptive and distracted first graders; If a Neighborhood elementary school turns out know-nothing sixth graders; If a Village middle and high school turns out graduates that cannot support themselves or cannot gain entrance to Community Colleges; then,

The Community, SubRegion and Region are there to provide a context which provides incentives for these Agencies achieve competitive results. Competition and cooperation among Agencies as well as competition and cooperation among Enterprises and Institutions is a key to a civil society.

Under this educational structure any feasible idea could be tried but the full costs would be allocated to those who benefit – the entire society, not just those who can afford an alternative system.