

An Assessment of the Most Difficult Challenges of Our Times

Includes a 10 point summary of the issues defined by the IPCR Initiative
as the “Most Difficult Challenges of Our Times”

(with 43 observations, commentary, analysis, and statistics as supporting evidence)

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A Brief Note About This Assessment

One of the “Core Documents” of The IPCR Initiative is “A Project Proposal for ‘Towards Higher Common Ground’: A Survey of Most Difficult Challenges and Most Valuable Resources”. That document is a compilation of supporting evidence for conducting local community and regional surveys, which would consist of the following 4 questions:

- 1) What are the most difficult challenges of our times?
- 2) Do we have the resources necessary to overcome the challenges of our times?
- 3) If your answer to Question #2 is yes, please describe the resources you believe will contribute the most to helping us—collectively—overcome these difficult challenges.
- 4) If your answer to Question #2 is no, please offer any and all sincere, constructive, relevant, and practical suggestions for what we—collectively—can do to inspire, encourage, and/or create the resources you believe *would be necessary* to overcome these difficult challenges.

This document—“An Assessment of the Most Difficult Challenges of Our Times” —was originally created as a part of that proposal, and was included there—along with the document “A Selection of Most Valuable Resources”—as examples of publications, initiatives, and observations which, when seen together

- 1) contributed to this writers’ sense that there is a need for projects/surveys like the “Towards Higher Common Ground” Survey and
- 2) will contribute to the readers sense of what some responses to such surveys might look like.

For a more comprehensive discussion on the potential of the “Towards Higher Common Ground” Survey, please refer to that document in the “Core Documents” section of the website of The IPCR Initiative.

Table of Contents

Our Particular Moment in Time on This Planet Earth <i>Could Be</i> the Best of Times	2
Introduction.....	3
A ten point assessment by The IPCR Initiative of “the most difficult challenges of our times”.....	4
Evidence in Support of The IPCR Initiative’s Ten Point Assessment of “the most difficult challenges of our times” Observations, Commentary, and Analysis (26).....	6
Evidence in Support of The IPCR Initiative’s Ten Point Assessment of “the most difficult challenges of our times” Related Statistics (17).....	19
Appendix 1: The IPCR Mission Statement.....	27
Appendix 2: 105 Related Fields of Activity.....	28
Notes and References.....	29

Our Particular Moment in Time on This Planet Earth *Could Be* the Best of Times

That we must somehow work through all of the challenges listed in the ten point summary of “the most difficult challenges of our times” (see p. 4-6) is a very sobering realization—and one of a few key realizations which has convinced this writer that we are at a critical point in the evolution of spiritual understanding.

And yet arriving at a full appreciation of the difficulty of our current circumstances is both difficult and risky, as arriving at such a point *without also having* sufficient faith and wisdom, and access to appropriate resources could be overwhelming, and lead to many people losing hope and becoming desperate. After all, consider that in one of the documents which has assisted many people to a fuller awareness of the implications of “peak oil” (the “Hirsch Report”, see p. 8-9), the suggestion is made that successful risk management of such a profound change in human affairs will require that large scale mitigation activity commence ten years before the actual “peak” occurs.

How much more time, might we imagine, will be needed for the profound changes in human affairs necessary to overcome all of the “most difficult challenges of our times”?

Who can we turn to to assure us that we—collectively—will avoid an outcome in which many people learn of these difficult challenges in a way that leads to a loss of hope and a feeling of desperation?

There is a profound and critical need for human beings—collectively—to be

- 1) much more organized and deliberate about “... bringing to the fore what is often hidden: how many good people there are, how many ways there are to do good, and how much happiness comes to those who extend help, as well as to those who receive it.”
- 2) much more multifaceted and participation-friendly in our approaches to peacebuilding, community revitalization, and ecological sustainability
- 3) much more resourceful in the use of the storehouses of accumulated wisdom and “embodied energy” which are now accessible to us.

Fortunately, there is much potential which could be translated into a positive outcome. Another way of saying this is: *at no other time in the course of history have so many people had access to so much along the lines of resources necessary to overcoming the challenges of their times.*

We have the resources necessary to overcome the challenges of our times.

The IPCR Initiative is dedicated to assisting fellow human beings, wherever they may be, who are also trying to fill in the blank in the statement below:

In the best of times, even the most profound challenges can be overcome; for in the best of times, _____ is/are nurtured, supported, and sustained by family, friends, teachers, mentors, elders, and the everyday influences of community life and cultural traditions.

Introduction

There are three implied propositions in the content of the IPCR website which can be summed up as follows:

- 1) The 43 observations and statistics in this “Assessment” section (and other related observations which can be added as further evidence) are indicators of specific “trends” in the larger story of human evolution on the planet Earth. By bringing these observations and statistics together in one place, this writer is encouraging readers to look at them very closely, and decide for themselves which direction the “trends” should go in the future if they were to go in a direction compatible with interfaith peacebuilding, community revitalization, and ecological sustainability.
- 2) The Mission Statement of The IPCR Initiative (see Appendix 1) is an effort to list a set of goals which summarize (from this writer’s point of view) what would need to happen for those 43 “indicators of specific trends” to go in a direction compatible with interfaith peacebuilding, community revitalization, and ecological sustainability.
- 3) The Eight IPCR Concepts encourage and facilitate a “constellation” of initiatives by which the best (*in the view of the participants using these processes*) associated with individual spiritual formation, interfaith peacebuilding, community revitalization, ecological sustainability, etc. can bubble up to the surface, be recognized as priorities, and therefore be brought forward as appropriate recipients of peoples time, energy, and money. Many people can realize the wisdom of deliberately focusing the way they spend their time, energy, and money so that their actions have positive repercussions on the fields of activity described by IPCR Mission Statement goals, and on other related fields of activity (see “105 Related Fields of Activity” in Appendix 2). As the ancient Chinese proverb says: “Many hands make much work light.”

The IPCR Initiative understands that the complexity associated with building bridges and increasing collaboration between diverse communities of people, the urgent need for resolutions to a significant number of critical issues in the near future—and *the seemingly chronic nature of many of the challenges of our times*—suggests a need for problem solving on a scale most of us have never known before. There has never been a time in the course of history when both the capacity to cultivate practical wisdom and the capacity to build a positive and constructive consensus were as important as they are now. *Are we up to the challenge?*

Hopefully, the urgency suggested by the content of this “Assessment” will be considered sufficient to encourage readers (if they have not done so already) to explore the assessments of many people working in many different fields of activity—and to actively develop their own assessment of the most difficult challenges of our times. (This writer’s 10 point assessment is on p.4-6) The more people make an effort to arrive at a clear understanding of the challenges before us, the more likely it is that we will be able build consensus for the collective action necessary to overcome those challenges.

A ten point assessment by The IPCR Initiative of “the most difficult challenges of our times”

Note: The IPCR Initiative is aware that there are many very difficult issues which could be defined as “the most difficult challenges of our times”. By even making a list at all, The IPCR Initiative is not suggesting it can offer a definitive assessment.

The purpose of the designations made in the following ten point summary is

- a) to help other people appreciate how becoming involved in a comprehensive assessment of the challenges of our times can be useful for re-framing public discourse
- b) to help other people appreciate that these issues “pervade our globe; ... are complex due to the interdependent nature of all modern nation-states; (and) are all interwoven, making it difficult, if not impossible, to deal with one in isolation from the others....”¹
- c) to illustrate how The IPCR Initiative can contribute to the resolution of even the most profound challenges of our times.

The ten point assessment:

- 1) Community building associated with energy descent (see Challenges #4, 5, and 6) (as a result of either wise decisions, key supply shortages, or lack of other options) may or may not be accompanied by an exponential increase in compassion for our fellow human beings. *Without such an exponential increase, an increase in the need for emergency assistance to people with basic human needs [as a result of migrations from areas where carrying capacity has been exceeded (areas such as mega-cities), for example (see Challenge #8)] may coincide with a decrease in our capacity to respond to such emergencies*
- 2) “Cultures” of violence, greed, corruption, and overindulgence which have become so common that many of us accept such as inevitable²
- 3) The source of threats—whether perceived or real—to the identities and/or cherished meanings of many communities of people is too often linked to religious, spiritual, and/or moral traditions; and such threats too often result in conflicts which cast a shadow of negative associations onto such traditions. These negative associations have caused many people to disassociate from the religious, spiritual, and/or moral traditions linked to such threats; and have accumulated to such a degree that the real treasured wisdom of many such traditions now seems as if it is hidden—or remains undiscovered. This is unfortunate—as such treasured wisdom contains teachings which inspire and encourage people to
 - a) appreciate truth, virtue, love, and peace—and live disciplined lives for the purpose of adhering to truth, cultivating virtue and love, and maintaining the pathways to enduring peace
 - b) sacrifice personal desires for the greater good of the whole

- c) find contentment and quality of life while consuming less material goods and ecological services
- d) prefer peacebuilding which supports and actualizes mutually beneficial understandings, forgiveness, and reconciliation—and which abstains from violent conflict resolution—as a way of bringing cycles of violence to an end
- e) use resources carefully, so that there is surplus available for emergency assistance
- f) support community life and cultural traditions which “... bring to the fore what is often hidden: how many good people there are, how many ways there are to do good, and how much happiness comes to those who extend help, as well as to those who receive it.”

4), 5) and 6) Planet-wide climate chaos and global warming, the end of the era of cheap oil (“peak oil”), and widespread resource depletion and extinction (the “Triple Crises”)

Consider the following references (with additional corroborating quotes) to pre-conference (September, 2007) information for a “Teach In: Confronting the Global Triple Crises—Climate Change, Peak Oil (The End of Cheap Energy), and Global Resource Depletion and Extinction” (September 14-17, 2007 at The George Washington University Lisner Auditorium in Washington D.C.) Sponsored by The International Forum on Globalization (www.ifg.org) and The Institute on Policy Studies

“The planet’s ecological systems are on the verge of catastrophic change for which few societies are prepared. So far, responses by governments to this emergency are inadequate, or counterproductive. We call it the “Triple Crisis,” the convergence of three advancing conditions:

- a) Planet-wide climate chaos and global warming (“There is a serious risk of widespread, catastrophic climate change if we do not begin dramatically reducing global carbon emissions”³)
- b) The end of the era of cheap energy (“peak oil”) (“The peaking of world oil production presents the U.S. and the world with an unprecedented risk management problem.... The world has never faced a problem like this....”⁴)
- c) The depletion of many of the world’s key resources: water, timber, fish, fertile soil, coral reefs; and the expected extinction of 50% of the world’s species.

“All are rooted in the same systemic problem—massive overuse of fossil fuels and the Earth’s resources; all driven by an economic ideology of hyper growth and consumption that’s beyond the limits of the planet to sustain.”⁵

7) The increasing world population and its implications relating to widespread resource depletion (with special focus on *the increasing number of people* who are consuming material goods and ecological resources *indiscriminately*)

8) Current trends indicate that we are creating more and more “urban agglomerations” (cities with a population of more than 1 million people), which require more and more complex and energy intensive infrastructures, where it is more and more difficult to trace the consequences of our individuals investments of time, energy, and money—and which are the least appropriate models when it comes to implementing resolutions to many of

the other challenges included in this list.⁶ (Note: “Response nodes” for emergency assistance, and centers for regional and international exchange of “weak link” materials do not require a mega-city infrastructure base)

9) Any shortages of goodwill in times of unprecedented transition could tilt already precarious systems into further disarray—and thus erode established systems in even the most stable communities and regions

10) Sorting out what are real challenges and what are sound and practical solutions is becoming more and more difficult, as there is now, in many parts of the world, a multitude of ideas of all kinds coming to the fore in personal, family, community, and cultural life—all at the same time.

Evidence in Support of The IPCR Initiative’s Ten Point Summary of “the most difficult challenges of our times”

Observations, Commentary, and Analysis (24)

1) *From Washington Post article “Earth’s Sustainability Not Guaranteed....”* (Shankar Vedantam, March 30, 2005) and from the summary of the Millennium Ecosystem Assessment, at www.greenfacts.org/en/ecosystems/index.htm#10

“...the most comprehensive analysis ever conducted on how the world’s oceans, dry lands, forests, and species interact and depend on one another—was made public March 30, 2005 by the United Nations and by several private and public organizations.”

“The effort brought together 1,300 authors from 95 countries—including governments, civil society groups, scientists from many universities and organizations, indigenous people, etc.—over a 4 year period, to examine the social, economic and environmental aspects of ecosystems.” (from Washington Post article)

(Major Findings—from the summary of the Millennium Ecosystem Assessment)

a) “Over the past 50 years, humans have changed ecosystems faster and more extensively than in any period in human history. This has been due largely to rapidly growing demands for food, freshwater, timber, fiber, and fuel....”

b) “The changes made to ecosystems have contributed to substantial gains in human well being and economic development, but these gains have been achieved at growing costs. These costs include the degradation of many ecosystem services....”

c) “This degradation of ecosystem services could get significantly worse during the next 50 years....”

d) “Reversing the degradation of ecosystems while meeting increasing demands for their services is a challenge. This challenge can be partially met in the future under scenarios involving significant changes to policies, institutions, and practices. However, these

required actions will have to be substantial when compared to the actions currently taken....” (www.greenfacts.org/en/ecosystems/index.htm#10) (Accessed June 9, 2007)

2) *From Executive Summary of “Post Carbon Cities: Planning for Energy and Climate Uncertainty* by Daniel Lerch, (<http://postcarboncities.net/guidebook>) at the website of Post Carbon Cities (an initiative of The Post Carbon Institute) (Paragraph 1, 2, and 3) (Accessed August 18, 2007)

“Most credible observers now recognize that our global climate faces radical change in the coming decades if we do not take immediate and far-reaching action. Peak oil (the coming high point and subsequent decline of world oil production) is not as widely understood, but presents a similarly complex set of challenges.

“Time is short to prepare for peak oil and global warming. At current rates of fossil fuel consumption we will most likely pass peak oil by 2010, and we seriously risk widespread, catastrophic climate change if we do not begin dramatically reducing global carbon emissions.

“Post Carbon Cities: Planning for Energy and Climate Uncertainty” provides guidance and support to local government officials and staff for meeting three critical goals: breaking community dependence on oil, stopping community contributions to global warming, and preparing the community to thrive in a time of energy and climate uncertainty. The most direct strategy for achieving these goals is to reduce consumption and produce locally: reduce the community's overall consumption, and develop the capacity of local farmers and manufacturers to provide for the community's basic needs. The more your community can get its energy and basic goods from local sources, the less vulnerable it will be to rising and unstable oil prices, and the less it will contribute to climate change.”

3) *From “Zero Carbon Britain”, a document from the Centre for Alternative Technology (UK)* From section “Executive Summary” (paragraphs 1 and 2) (p. 12) at <http://www.zerocarbonbritain.com/images/zerocarbonbritain.pdf> (Accessed August 18, 2007)

“This report is the Centre for Alternative Technology’s considered response to the current understanding of the global climate.

“Two things have changed in recent years.

- The international scientific consensus on the causes and gravity of climate change has moved from ‘perhaps’ to ‘certainly’.
- A number of significant positive feedbacks have been identified in the climate system. Their effect is such that humanity’s greenhouse gas emissions will act merely as a trigger for much greater and more rapid climatic changes.”

4) *From the website of “Transition Culture”* at www.transitionculture.org (from Rob Hopkins notes from a talk by the director of the “Zero Carbon Britain” project, Paul

Allen) (see <http://transitionculture.org/2007/08/10/cats-zero-carbon-britain-report>) (paragraph 4) (Accessed August 18, 2007)

“Paul Allen: The Government argues for 60% cuts by 2050, this will not do the job that climate scientists tell us we need to do. Our emissions are a detonator, a trigger, creating larger and larger feedback loops, for example, sea absorbs heat better than ice, and warming seas release methane hydrates, which have a far higher impact on climate. To avoid runaway feedbacks, we need zero carbon in 20 years. Alongside the climate challenge is peak oil. We’ve got through half of the world’s total reserves in 150 years. Another pressing issue is global equity. It is morally unacceptable that the rich get richer while the poor get poorer.”

5) *From the website of The Intergovernmental Panel on Climate Change*, at www.ipcc.ch (Accessed August 18, 2007)

“The Intergovernmental Panel on Climate Change (IPCC) has been established by WMO and UNEP to assess scientific, technical and socio-economic information relevant for the understanding of climate change, its potential impacts and options for adaptation and mitigation. It is currently finalizing its Fourth Assessment Report "Climate Change 2007", also referred to as AR4.” (To be released November 2007) This Summary Report is described by the IPCC website (<http://www.ipcc.ch>) as follows: “2500+ scientific expert reviewers, 800+ contributing authors, 450+ lead authors from, 130+ countries... 6 years work, 4 volumes, 1 report” “A comprehensive and rigorous picture of the global present state of knowledge of climate change.”

6) *From Wikipedia article titled Global Warming* (see section “Greenhouse Gases in the Atmosphere”, paragraph 3) (Accessed August 18, 2007)

“On Earth, the major natural greenhouse gases are [water vapor](#), which causes about 36–70% of the greenhouse effect ([not including clouds](#)); [carbon dioxide](#) (CO₂), which causes 9–26%; [methane](#) (CH₄), which causes 4–9%; and [ozone](#), which causes 3–7%.^{[16][17]} Some other naturally occurring gases contribute very small fractions of the greenhouse effect; one of these, [nitrous oxide](#) (N₂O), is increasing in concentration owing to human activity such as agriculture. The [atmospheric concentrations](#) of CO₂ and methane have increased by 31% and 149% respectively above pre-industrial levels since 1750. These levels are considerably higher than at any time during the last 650,000 years, the period for which reliable data has been extracted from [ice cores](#). From less direct geological evidence it is believed that CO₂ values this high were last attained 20 million years ago.^[18] [Fossil fuel](#) burning has produced about three-quarters of the increase in CO₂ from human activity over the past 20 years. Most of the rest is due to land-use change, in particular [deforestation](#).^[19]”

7) From the “Hirsch Report” [“*The Peaking of World Oil Production: Impacts, Mitigation and Risk Management*”—Project Leader: Robert L. Hirsch (SAIC) Commissioned by the Department of Energy, and dated February, 2005] [Accessible at the website of Roscoe Bartlett (R-MD)(USA) at www.bartlett.house.gov/EnergyUpdates/] (in “Summary and Concluding Remarks”)

“Over the past century the development of the U.S. economy and lifestyle has been fundamentally shaped by the availability of abundant, low-cost oil. Oil scarcity and several-fold oil price increases due to world oil production peaking could have dramatic impacts.” (see Point #2: “Oil Peaking Could Cost the U.S. Economy Dearly”, p. 64)

“The world has never faced a problem like this. Without massive mitigation more than a decade before the fact, the problem will be pervasive and will not be temporary.” (see Point #3: “Oil Peaking Presents a Unique Challenge”, p. 64)

(in “Executive Summary”)

“The peaking of world oil production presents the U.S. and the world with an unprecedented risk management problem. As peaking is approached, liquid fuel prices and price volatility will increase dramatically, and, without timely mitigation, the economic, social, and political costs will be unprecedented.” (see paragraph 1, p. 4)

“The challenge of oil peaking deserves immediate, serious attention, if risks are to be fully understood and mitigation begun on a timely basis.” (see point #2, p. 5)

8) From Richard Heinberg’s Museletter #184 titled “A View from Oil’s Peak” (at <http://www.richardheinberg.com/museletter/184>) (from closing paragraph) (Accessed September 6, 2007) (from Richard Heinberg’s website at <http://www.richardheinberg.com/> [Note: Richard Heinberg is widely acknowledged as one of the world’s foremost Peak Oil educators. He is a journalist, educator, editor, lecturer, and a Core Faculty member of New College of California, where collaborative efforts between faculty, students, and a variety of other “stakeholders” are creating models for “Powerdown” efforts at the regional and community level. Some of the books he has written: *The Party’s Over: Oil, War, and the Fate of Industrial Societies*; *Powerdown*; *The Oil Depletion Protocol: A Plan to Avert Wars, Terrorism, and Economic Collapse*; and *Peak Everything: Waking Up to a Century of Declines*”]

“The human community’s central task for the coming decades must be the undoing of its dependence on oil, coal, and natural gas in order to deal with the twin crises of resource depletion and climate chaos. It is surely fair to say that fossil fuel dependency constitutes a systemic problem of a kind and scale that no society has ever had to address before. If we are to deal with this challenge successfully, we must engage in systemic thinking that leads to sustained, bold action.”

9) From pre-conference information for “Teach In: Confronting the Global Triple Crises—Climate Change, Peak Oil (The End of Cheap Energy), and Global Resource Depletion and Extinction” (September 14-17, 2007 at The George Washington University Lisner Auditorium in Washington D.C.) Sponsored by The International Forum on Globalization (www.ifg.org) and The Institute on Policy Studies (with other co-sponsors) From Teach-In Flyer and Draft Program at http://www.ifg.org/events/Triple_Crisis_Speakers.pdf (see p. 2)

“The Way Forward—Toward New Economies of Sustainability, Equity, Sufficiency and Peace (‘Less and Local’)”

“The planet’s ecological systems are on the verge of catastrophic change for which few societies are prepared. So far, responses by governments to this emergency are inadequate, or counterproductive. We call it the “Triple Crisis,” the convergence of three advancing conditions:

- a) Planet-wide climate chaos and global warming;
- b) The end of the era of cheap energy (“peak oil”);
- c) The depletion of many of the world’s key resources: water, timber, fish, fertile soil, coral reefs; and the expected extinction of 50% of the world’s species.

“All are rooted in the same systemic problem—massive overuse of fossil fuels and the Earth’s resources; all driven by an economic ideology of hyper growth and consumption that’s beyond the limits of the planet to sustain.”

10) *From the website of the U.S. Department of Energy* (from the homepage, see “Energy Sources”/“Fossil Fuels”) (paragraph 1) at <http://www.energy.gov/energysources/fossilfuels.htm> (Accessed September 5, 2007)

“Fossil fuels – coal, oil and natural gas -- currently provide more than 85% of all the energy consumed in the United States, nearly two-thirds of our electricity, and virtually all of our transportation fuels. Moreover, it is likely that the nation’s reliance on fossil fuels to power an expanding economy will actually increase over at least the next two decades even with aggressive development and deployment of new renewable and nuclear technologies. “

11) *From March 14, 2006 special presentation to Congress on the subject of peak oil* by Roscoe Bartlett, Congressman, House of Representatives (R-MD) (USA) (he has made many such presentations....) (Accessible at <http://www.xecu.net/thorn/PO/PO-March14-2006.html> -- excerpts are from paragraphs 13, 14, and 16 *after the [Time: 20:15] entry*

“The United States currently has 5% of the world’s population but uses 25% of the world’s annual energy production.... This disproportionate consumption of energy

relative to global consumption causes loss of the world's goodwill.... A more equitable distribution of resources is in our best interests for a peaceful future.” (from an Army Corps of Engineer's Report quoted by Roscoe Bartlett, Congressman, House of Representatives (R-MD) (USA) in his March 14, 2006 special presentation)

[Special Note: “(Difficulties) can challenge us to maximize our potential for individual personal growth and mutual benefit.” (p. 7 “Eight Essential Steps to Conflict Resolution” Dudley Weeks)]

12) *From April 20, 2005 special presentation to Congress on the subject of peak oil* by Roscoe Bartlett, Congressman, House of Representatives (R-MD) (USA) (he has made many such presentations....) (Accessible at www.bartlett.house.gov/EnergyUpdates/)

“If, in fact, we have reached peak oil... and I spoke here on the Floor a bit more than 5 weeks ago for an hour on this subject-- and we have had a lot of people come through our offices and a lot of phone calls and e-mails from all around the world, and I will tell my colleagues that there is nobody who does not believe that we are either at peak oil or will shortly be at peak oil.” (p.4)

13) *From May 2, 2006 special presentation to Congress on the subject of peak oil* by Roscoe Bartlett, Congressman, House of Representatives (R-MD) (USA) (he has made many such presentations....) (Accessible at www.bartlett.house.gov/EnergyUpdates/)

“World proved reserves lifetime for oil is about 41 years, most of this at a declining availability. Our current throwaway nuclear cycle uses up the world reserve of low-cost uranium in about 20 years. We will see significant depletion of Earth's finite fossil resources in this century. We must act now to develop the technology and infrastructure necessary to transition to other sources.” (p.5)

14) *From “Revisiting Carrying Capacity: Area Based Indicators of Sustainability”*, by William E. Rees, 1996, (at www.dieoff.org/page110.htm) (Accessed June 9, 2007)

“Ecological Footprint—The corresponding area of productive land and aquatic ecosystems required to produce the resources used, and to assimilate the wastes produced, by a defined population at a specified material standard of living, wherever on Earth that land may be located.” (in subsection “‘Footprinting’ the Human Economy”; in Box 3 “A Family of Area-based Sustainability Indicators”)

“Cities necessarily appropriate the ecological output and life support functions of distant regions all over the world through commercial trade and the natural biogeochemical cycles of energy and material. Indeed, the annual flows of natural income required by any defined population can be called its ‘appropriated carrying capacity.’ Since for every material flow there must be a corresponding land/ecosystem source or sink, the total area

of land/water required to sustain these flows on a continuous basis is the true ‘ecological footprint’ of the referent population on the Earth.” [see section “Appropriating Carrying Capacity and Ecological Footprints” (paragraph 5)]

“... as a result of high population densities, the enormous increase in per capita energy and material consumption made possible by (and required by) technology, and universally increasing dependencies on trade, the ecological locations of human settlements no longer coincide with their geographic locations. Twentieth century cities and industrial regions are dependent for survival and growth on a vast and increasingly global hinterland of ecologically productive landscapes.” [see section “Appropriating Carrying Capacity and Ecological Footprints” (paragraph 4)]

15) *From Press Release (August 13, 2002) “Londoners Running Up Massive Debt on Earth’s Resources”* at www.citylimitslondon.com/city_limits_press_release.htm (Accessed June 10, 2007)

“The City Limits Report reveals each Londoner has an ecological footprint of 6.63 global hectares.... The current calculation for a sustainable footprint is 2.18 global hectares.”

“Paper and plastics are the biggest hitters in the material and wastes footprint. Paper’s large contribution is accounted for partly by the large quantities Londoners use, 2,908,000 tonnes (per year).... Londoners consume less plastic than paper—691,000 tonnes (per year)—but because it is derived from fossil fuel and very little is currently recycled, plastic makes up a large part of the average Londoner’s footprint.”

“Forty one per cent of the Ecological Footprint (2.80 gha) is accounted for by the food Londoners eat.... In total, London consumes 6.9 million tones of food (per year), more than three quarters of which is imported. London throws away 560,000 tonnes of food (per year) as waste.”

16) *From “Revisiting Carrying Capacity: Area Based Indicators of Sustainability”*, by William E. Rees, 1996 (at www.dieoff.org/page110.htm) (Accessed June 10, 2007)

“Ecological Deficit—The level of resource consumption and waste discharge by a defined economy or population in excess of locally/regionally sustainable natural production and assimilative capacity (also, in spatial terms, the difference between that economy/population’s ecological footprint and the geographic area it actually occupies).” [see section “Appropriating Carrying Capacity and Ecological Footprints” (Box 3: “A Family of Area-Based Sustainability Indicators”)]

“...However, our analysis of physical flows shows that these and most other so-called ‘advanced’ economies are running massive, unaccounted, ecological deficits with the rest of the planet (Table 1).... These data emphasize that all the countries listed, except for Canada, are overpopulated in ecological terms—they could not sustain themselves at current material standards if forced by changing circumstances to live on their remaining

endowments of domestic natural capital. This is hardly a good model for the rest of the world to follow.” [see section “Appropriating Carrying Capacity and Ecological Footprints” (and subsection “‘Footprinting’ the Human Economy”, paragraphs 10-11)]

“Ecological Footprint Analysis supports the argument that to be sustainable, economic growth has to be much less material and energy intensive than at present.” [in subsection “Addressing the Double-Bind of Sustainability”, see “Bullet” #6]

17) *From presentation/essay “The Significance of the Global Ecovillage Movement”*
(by Ted Trainer, University of New South Wales, Australia) (see <http://socialwork.arts.unsw.edu.au/tsw/D09TheSigOfTheGEM.html>)
(Accessed June 10, 2007)

“The transition required is so vast that most of us (including me) would say our chances of achieving it are slight.”

18) *From the “Introduction” to the Ecovillage section of the Findhorn Foundation website* titled (at http://www.findhorn.org/ecovillage/display_new.php) (Accessed June 9, 2007)

“Ecovillage Education at Findhorn is a conscious response to the urgent environmental call of our times.... The ecovillage model presents itself as an inspiring and viable solution to eradication of poverty and degradation of the environment, while combining a supportive social-cultural environment with a low-impact lifestyle....”

“The Findhorn Ecovillage is used as a teaching resource by many university and school groups as well as by professional organisations. We also design and deliver Ecovillage/Sustainability Education courses to communities, groups, universities and municipalities worldwide. For more information contact: esd@findhorn.org

“You are invited to join the ecovillage movement which has grown from 9 "seed" villages in 1995 (First Intl Conference at Findhorn) to more than 15,000 villages associated with the Global Ecovillage Network today, including several "Living and Learning Centers;" villages which have created training programs to assist other communities.”

19) *From the website of UN Habitat—United Nations Human Settlements Programme—*
at <http://www.unhabitat.org> (from “Media Centre/Press Kits” section)

a) from “State of the World’s Cities 2004-5” (foreword by Kofi Annan, UN Sec. Gen.)
(at http://www.unhabitat.org/documents/media_centre/sowc/sgforeward.pdf)

“Many cities face pervasive and persistent problems, including growing poverty, deepening inequality and polarization, widespread corruption at the local level, high rates of urban crime and violence, and deteriorating living conditions.”

b) from “Financing Urban Shelters: Global Report on Human Settlements 2005)”
(see article “Sustainable Urbanisation: A Shack by Any Standards”)
at http://www.unhabitat.org/documents/media_centre/ghs/GRHS05F3.pdf

“A shack, about 2 metres long and 2 metres wide, is home to a family composed of husband, wife and four children. It is just one of 7700 such shacks in a street behind the residential area in Delhi....”

“The circumstances described above are very similar to those experienced by the vast majority of the more than 900 million slum dwellers all over the world...”

c) from “State of the World’s Cities 2006-7” (introduction by Dr. Anna Tibaijuka, Executive Director of UN-Habitat) (at http://www.unhabitat.org/documents/media_centre/sowcr2006/SOWCR_ED.pdf)

“... unless concerted action is taken to redress urban inequalities, cities may well become the predominant sites of deprivation, social exclusion and instability worldwide.”

20) *From the New Society Publisher’s summary of “Relocalize Now! Getting Ready for Climate Change and the End of Cheap Oil”* (by Post Carbon Institute contributors, including Julian Darley) (forthcoming in 2007)(see <http://www.amazon.com/Relocalize-Now-Getting-Climate-Change/dp/0865715459> for more information) (Accessed August 31, 2007)

“This timely guide from The Post Carbon Institute analyses the full depth of the crises of industrial civilization, outlines the centrality of the global economic system in this crises, and then proposes a plan for global relocalization of our way of life.”

21) *From essay “Embody Peace”* (by Dr. Hizkias Assefa) in “The Handbook of International Peacebuilding: Into the Eye of the Storm” (John Paul Lederach, ed.) Jossey-Bass, San Francisco 2002

From Lesson 3-- “When we attempt to build peace without being embodiments of peace ourselves, we inflict violence without even knowing we are doing so. That might be why we professionals have not been very successful in our peacebuilding efforts, especially when it comes to going beyond stopping war and transforming relationships and society.”

From Lesson 4—“If indeed peacebuilding is about addressing and transforming root causes of conflicts, then there is a great deal of peacebuilding work that has to be done in those societies that are benefiting from the global system at the expense of generating injustice and crises in other societies.”

From Conclusion—“Working at the subsystem level without addressing the forces at the larger systemic level that undermine the work at the subsystem level will not lead to any durable outcome.”

22) From “*Sathya Sai Speaks*” (Vol. 1-15) (*Discourses by Sri Sathya Sai Baba from the years 1953-1982*) (Published by Sri Sathya Sai Books and Publications Trust Prasanthi Nilayam India) (and from “*Meditation Know-How*” by Swami Sivananda) (Note: “Sathya Sai Speaks” Vol. 1-35 can be accessed via the Internet at <http://www.sathyasai.org/search/default.htm>) (Accessed June 10, 2007)

“An undisciplined person is a danger to society; any moment he may run amuck. Man must recognize what limits, regulations, and do’s and don’ts are laid down by the sages of the past in order to ensure social security and individual advancement.”

(SSS 14.33 p.181)

“Man has to be continually examining every desire that emerges in his mind, so that he may suppress or destroy or by-pass or obey. He must learn, from parents, elders, teachers, friends, and the leaders of the land—(and from) the books written by wise men of his own as well as other countries—the standards by which he can test his desires.”

(SSS 12.44 p.242)

“Just as you will have to take back with care your cloth that is fallen on a thorny plant, by removing the thorns slowly one by one; so also, you will have to collect back with care and effort the dissipated rays of the mind that have been thrown over sensual objects for very many years.”

(Swami Sivananda in “Meditation Know-How” p. 132)

“At present, we have Dharma, in plenty, in books and perhaps, even in the words we speak. But, without the strength derived from dedication and faith, and from purity of character and conduct, Dharma is powerless to earn the Grace of God. That is the situation in which we are today.

(SSS 10.22 p.130)

“It is a call and a challenge, for you, to provide comfort and consolation to those in need, to seek out means and methods to increase the ways in which you can help others and contribute to their joy.”

(SSS 12.49 p.268)

“Your task... is to grow in love, expand that love, practice love, strengthen love, and finally become Love... love expressed through service to those that draw the love from you, and by drawing, help to increase it and deepen it.”

(SSS 9.30 p.158)

“The mariner uses his compass to guide him aright amidst the dark storm clouds and raging waves. When Man is overwhelmed by the dark clouds of despair and the raging confusion of irrepressible desires, he too, has a compass which will point to him the direction he has to take.... That compass is a Society that is dedicated to the propagation of Spiritual Discipline.” (SSS 8.21 p.108)

“*Dharmo rakshathi rakshithaha*—‘Dharma guards its guardians.’” (SSS 5.16 p.90)

23) *From the website of “Earth and Religions: Crisis, Opportunity, Convergence”* (subtitled: “An Interfaith/Environmental Conference/Engaging All People in the Quest for a Sustainable World”) (held June 9-12, 2005) Excerpt from website section titled “Letter from Satish” (Satish Kumar) (at www.earthandreligion.com) (Accessed June 10, 2007)

“Leaders and activists in the environmental and social justice movement often consider spiritual and religious organizations irrelevant. They see religious pursuit and practice as being too self-centered and not engaged with the real world. In the same manner, religious leaders and organizations look upon the environmental and social justice movements as a waste of time. They believe that the only real change is personal change, and if all human beings behaved well and lived religiously then the world’s problems will sort themselves out.”

24) *From Chapter 53 of “Te-Tao Ching” (by Lao Tzu)* (possibly written in 6th Century B.C.E., sufficient evidence unavailable) (translation by Robert G. Hendricks) Ballantine Books New York 1989

“Were I to have the least bit of knowledge, in walking on a Great Road,
it’s only going astray that I would fear.
The Great Way is very level;
But people greatly delight in tortuous paths.”

25) *From “Permaculture and Energy” (by David Holmgren, co-creator of the “permaculture” concept)* (article first written in 1990, published in “Permaculture Activist” Issue #31 May, 1994) (see subsection titled “Mollison”) (<http://permacultureactivist.net/Holmgren/holmgren.htm>) (Accessed June 10, 2007)

“The transition from an unsustainable fossil fuel-based economy back to a solar-based (agriculture and forestry) economy will (require making best use) of the embodied energy that we inherit from industrial culture. This embodied energy is contained within a vast array of things, infrastructure, cultural processes and ideas, mostly inappropriately configured for the ‘solar’ economy. It is the task of our age to take this great wealth, reconfigure it, and apply it to the development of sustainable systems.”

26) From “*Future Studies in the K-12 Curriculum*” by John D. Haas
Social Science Educational Consortium **1988**
(cited here for “comprehensive” list, and for perspective on progress since 1988)

“One futurist has called our present predicament a ‘crisis of crises,’ which emphasizes the complexity and interrelatedness of concurrent crises.

“Those individual crises that comprise the megacrisis are variously named and described by different authors.

“Lester Brown views the megacrisis from the perspective of an ecologist. For Brown, these are the issues:

- 1) The carrying capacity of the planet
- 2) The “Tragedy of the Commons” (i.e. the dilemma that self-interest pays off when the individual uses up as much of the social common stock as he or she is allowed before using his or her own private stock)
 - a) Overfishing of the ocean ‘commons’
 - b) Deforestation of the forest ‘commons’
 - c) Overgrazing
 - d) Overplowing
 - e) Overloading air, water, and land (i.e. pollution)
- 3) Consequences of No. 2
 - a) Loss of cropland and erosion
 - b) Polluted oceans (the ‘ultimate sink’)
 - c) Endangered species
 - d) Environmentally induced illnesses
 - e) Inadvertent climate change and natural disasters
- 4) The overpopulation threat
- 5) The depletion of energy resources
- 6) The food shortage (and attendant problems of shortage of arable land and pollution caused by fertilizers)
- 7) The economic sphere: unemployment, inflation, scarce capital, and diminishing returns
- 8) The unequal distribution of wealth within and between nations, and absolute and relative poverty
- 9) The advantages and problems of technology
- 10) The problems of accommodation and social change

“Willis Harman talks about the ‘five fundamental failures of the industrial era paradigm.’ The industrial paradigm encompasses industrialization, science, materialism, and pragmatism (utilitarianism plus hedonism). The five failures of the paradigm are:

- 1) Failure to provide individuals with opportunities to contribute to society and to be affirmed by society in return (i.e. problems of personal alienation and efficacy)

- 2) Failure to foster equitable distribution of power and justice (i.e. the problems of socioeconomic classes and of rich and poor nations)
- 3) Failure to foster responsible technology management
- 4) Failure to provide goals and visions capable of attracting loyalties and commitments (i.e. the problem of a lack of positive and compelling images of the future)
- 5) Failure to maintain the habitability of the planet

“Finally, this writer (John D. Haas) has developed two lists of global problems: the first includes problems at the surface in global societies—physical, material, economic, political problems; and the second lists problems that lie beneath the surface of society—consciousness, cultural, infrastructural problems. The first list is termed ‘Societal Problems’ and the second, ‘Cultural Problems.’

“Societal Problems:

- 1) Hunger and inadequate nutrition: starvation
- 2) Depletion of natural resources: arable land, water, air, and fossil fuels
- 3) Extinction of plant and animal species
- 4) Inequality—between nations and within a single nation—of material wealth, risk capital, and natural resources
- 5) Overpopulation by nation, region, or urban areas
- 6) Economic imperialism: rich nations exploiting poorer nations
- 7) Threats of wars: nuclear, ‘acquisition,’ and/or ‘redistribution’
- 8) Plagues, other diseases, and inadequate medical care
- 9) Environmental degradation: pollution, waste disposal, etc.
- 10) Crime and other violations of human and property rights
- 11) Shortages: of medicines, foods, energy, fertilizers, etc.
- 12) Economic malfunctions: depression, recession, unemployment, inflation
- 13) Credibility gaps: between and among politicians, scientists, business leaders, and citizens
- 14) Illiteracy, overschooling, and overspecialization
- 15) Guerrilla warfare, terrorism, and other forms of violent aggression
- 16) Social pathologies: superaffluence, conspicuous consumption, and ‘demonstration effects’

“Cultural Problems: (including)

- 5) The tacit acceptance of a cynical drift in human affairs
- 6) The tendency toward rampant hedonism, myopic presentism, and unbridled individualism
- 7) The lack of positive and hopeful symbols and dreams of global, communal, conjoint living
- 10) The lack of a collective will to act when action is necessary

“What is clear from these lists is that, although local manifestations may vary, these issues pervade our globe; they are complex due to the interdependent nature of all modern nation-states; they are all interwoven, making it difficult, if not impossible, to deal with one in isolation from the others; and they are long-term, destined to be with us for at least the next 25 years.” (from a book published in 1988)

**Evidence in Support of The IPCR Initiative’s Ten Point Summary of
“the most difficult challenges of our times”**

Related Statistics (17)

1) *World Population*

In 1804, the world population was 1 billion.

In 1927, the world population was 2 billion (123 years later).

In 1960, the world population was 3 billion (33 years later).

In 1974, the world population was 4 billion (14 years later).

In 1987, the world population was 5 billion (13 years later).

In 1999, the world population was 6 billion (12 years later).

As of January 16, 2007 (23.39 GMT EST + 5), the world population was estimated to be 6,570,255,064

(from www.infoplease.com at www.infoplease.com/ipa/A0883352.html; and U.S. Bureau of the Census POP Clock estimate at www.census.gov/cgi-bin/ipc/popclockw)
(Both accessed on June 10, 2007)

2) *Percent of World Population Living in Urban Areas*

“In 1800, only 3% of the world’s population lived in urban areas.”

“In 1900, almost 14% of the world’s population lived in urban areas.”

“In 1950, 30% of the world’s population lived in urban areas. 83 cities had 1 million or more inhabitants.”

“In 2000, about 47% of the world’s population lived in urban areas. 411 cities had 1 million or more inhabitants.”

(from website of Population Reference Bureau-- see <http://www.prb.org/Educators/TeachersGuides/HumanPopulation/Urbanization.aspx>)
(see paragraphs one and two) (Accessed June 9, 2007)

3) *Number of Vehicles, Worldwide*

“In 1900, only 4,192 passenger cars were in existence (there were no trucks, buses, etc.)”

“In 1968, there were 169,994,128 passenger cars in the world, and 46,614,342 trucks and buses—for a total worldwide, of 216,608,470 motor vehicles.”

“In 1996, there were 485,954,000 cars registered worldwide, and 185,404,000 trucks and buses—for a total, worldwide, of 671,358,000 motor vehicles.”

[from Glenn Elert’s webpage “Number of Cars”—(statistics attributed to various sources) at <http://hypertextbook.com/facts/2001/MarinaStasenko.shtml>] (Accessed June 9, 2007)

4) *Number of Traffic Fatalities, Worldwide (1998)*

“Of the 5.8 million people who died of injuries in 1998, 1,170,694 died as a direct result of injuries sustained in a motor vehicle accident.”

[cited in “Safety Statistics” section of www.safecarguide.com; (quoted from “Injury: A Leading Cause of the Global Burden of Disease” by the World Health Organization) see <http://www.safecarguide.com/exp/statistics/idx.htm> (in paragraph 6)] (Accessed June 10, 2007)

5) *Television Viewing, United States*

“The amount of TV that the average American watches per day: over 4 hours.”

“The number of TV commercials viewed by American children a year: 40,000”

“The number of TV commercials seen by the average American by age 65: 2 million.”

(from the TV Turnoff Network website, see TV Facts and Figures (<http://www.tvturnoff.org/factsheets.htm>) (Fact Sheets subsection) (Accessed June 10, 2007)

6) *Global Spending on Advertising, Worldwide, 2002*

“Global spending on advertising reached \$444 billion in 2002.”

(from “Online Features/Vital Signs Facts/Advertising Targets the Young” section of the Worldwatch Institute website, see <http://www.worldwatch.org/node/84>) (Accessed June 10, 2007)

7) *Global Consumer Class, 2004*

“By virtually any measure—household expenditures, number of consumers, extraction of raw materials—consumption of goods and services has risen steadily in industrial nations for decades, and it is growing rapidly in many developing countries.”

“By one calculation, there are now more than 1.7 billion members of ‘the consumer class’—nearly half of them in the developing world. A lifestyle and culture that became common in Europe, North America, Japan, and a few other pockets of the world in the twentieth century is going global in the twenty-first.”

(from the “Online Features/Consumption/State of Consumption: Trends and Facts” section of the Worldwatch Institute website at <http://www.worldwatch.org/node/810>) (Accessed June 10, 2007)

8) *Ecological Footprint Analysis*

“If just the present world population of 5.8 billion people (analysis published in 1994) were to live at current North American ecological standards (say 4.5 ha/person), a reasonable first approximation of the total productive land requirement would be 26 billion ha (assuming present technology). However, there are only just over 13 billion ha of land on Earth, of which only 8.8 billion are ecologically productive cropland, pasture or forest (i.e. only 1.5 ha/person available at best). In short, we would need an additional 2 planet Earths to accommodate the increased ecological load of people alive today. If the population were to stabilize at between 10 and 11 billion sometime in the next century, 5 additional Earths would be needed, all else being equal—and this just to maintain the present rate of ecological decline.”

[from “Revisiting Carrying Capacity: Area Based Indicators of Sustainability” (in subsection “Appropriated Carrying Capacity and Ecological Footprints”, see paragraph 20) by William E. Rees (1996), see www.dieoff.org/page110htm] (Accessed June 9, 2007)

9) *Deaths, Children Younger Than 5 (each year) (worldwide)*

“10 million children younger than 5 die every year, more than half from hunger-related causes. Most of these deaths are attributed, not to outright starvation, but to diseases that move in on vulnerable children whose goodies have been weakened by hunger. The four most common childhood illnesses are diarrhea, acute respiratory illness, malaria and measles. Each of these illnesses is both preventable and treatable. Yet, poverty interferes in parents’ ability to access immunizations and medicines. Chronic undernourishment on top of insufficient treatment greatly increases a child’s risk of death.”

(from “Hunger Facts: International/Facts and Figures on Health” section of the Bread for the World website, see <http://www.bread.org/learn/hunger-basics/hunger-facts-international.html>) (Accessed June 16, 2007)

10) *Number of Deaths Attributed to Hunger and Poor Sanitation (in the years 1950-2000)*

“An estimated 17% (8,549,000 people) of all deaths in the world in 1990 were due to malnutrition, unsafe water, and (poor) sanitation. If that 17% were applied to the years (1950-2000), (then we may conclude that) more than 418,000,000 (over 400 million) people have died of hunger and poor sanitation in the (50 years from 1950-2000). . . .”

[in “A Program to End World Hunger: Hunger 2000—Tenth Annual Report of the State of World Hunger” Bread for the World Institute, see <http://www.bread.org/learn/hunger-reports/hunger-report-pdfs/hunger-report-2000/introduction.pdf>) (see Introduction, p. 4) (excerpt quoted from “The Global Burden of Disease: Summary” by Christopher Murray and Alan D. Lopez, eds.)] (Accessed June 16, 2007)

11) *Deaths by Violent Conflict, 1900-2000*

“In the 20th Century, an estimated 191 million people lost their lives directly or indirectly as a result of conflict, and well over half of them were civilians.”

(from search using “Injuries and Violence Prevention” in the World Health Organization website, in the section “Facts Sheets” associated with “The World Report on Violence and Health” by the World Health Organization, Geneva 2002. see http://www.who.int/violence_injury_prevention/violence/world_report/factsheets/en/collectiveviolfacts.pdf) (Accessed June 16, 2007)

12) *Deaths by Murder or Non-Negligent Manslaughter, United States (1983-2002)*

“According to FBI (Federal Bureau of Investigation) statistics, in a document titled ‘Crime in the United States, 2002’ -- there were an average of 19,969 deaths by murder or non-negligent manslaughter per year in the United States, during the years 1983-2002”

(from “Crime Index Offenses Reported/United States, 1983-2002” section of the United States Federal Bureau of Investigation website, http://www.fbi.gov/ucr/cius_02/html/web/offreported/02-table01.html) (Accessed June 10, 2007)

13) *Small Arms Statistics, 2003*

“There are at least 639 million firearms in the world today, of which 59% are legally held by citizens.”

“At least 1,134 companies in 98 countries worldwide are involved in some aspect of the production of small arms and/or ammunition.”

(from the “Publications/Yearbook” section of the Small Arms Survey website, in the subsection “About the Small Arms Survey 2003”, at http://www.smallarmssurvey.org/files/sas/publications/year_b_pdf/2003/2003SAS_press-release_yb03_en.pdf) (Accessed June 9, 2007)

Or—from a document titled “State of the World’s Cities (2004-2005): General Overview: Urbanization & the Economic Contribution of Cities” (see p. 5) from UN-Habitat website, at http://www.unhabitat.org/documents/media_centre/sowc/ContritoCities.pdf (Accessed June 16, 2007)

“500 million small arms produced by 300 manufacturers in 74 countries are believed to be in circulation in the world, either legally or outside of regulatory state controls. Despite this, international trade in small arms is currently highly unregulated. 40% of the international flow of small arms is attributed to illicit trafficking.”

14) *Small Arms Statistics, 2007*

(from “Press Release” for “Small Arms Survey 2007: Guns and The City”; see paragraphs 1 and 2)

“Large-scale and uncontrolled urbanization is often accompanied by decreasing levels of public safety and appears to be associated with increased rates of armed violence, finds the 2007 edition of the Small Arms Survey. The drug trade, the availability of weapons, opportunities for criminal gain, and the social dislocation and anonymity of large cities all contribute to armed violence. A dearth of employment opportunities and resources in some cities is a factor in the onset of urban conflicts, from Brazil and Guatemala to South Africa and India.

“‘Cities are now home to the majority of the world’s population and present particular challenges for tackling armed violence,’ said Keith Krause, Programme Director of the Geneva-based Small Arms Survey. ‘Whereas urbanization used to be associated with industrialization and economic growth, this link has been broken. Today’s urban sprawl sees 25 million people each year join the one billion people who are living in slums—often sites of violence and coercion—while the wealthy retreat to gated communities,’ said Krause.”

(in the section “About the Small Arms Survey 2007”; in the subsection “Key Findings”)

- There are at least 875 million combined civilian, law enforcement, and military firearms in the world today.
- Civilians own approximately 650 million firearms worldwide, roughly 75 per cent of the known total. US citizens alone own some 270 million of these, with about 90 firearms for every 100 people.

- At least 60 states made what could reasonably be interpreted as irresponsible small arms shipments to 36 countries during the period 2002–04.
- The 2007 Small Arms Transparency Barometer indicates that transparency among the major exporters of small arms and light weapons remains poor in many countries. Among the most transparent are the United States, France, Italy, Norway, the United Kingdom, and Germany. The least transparent are Bulgaria, North Korea, and South Africa....

“• Large-scale and uncontrolled urbanization appears to be associated with increased rates of armed violence.

- Rapid urbanization is generally coupled with decreasing levels of public safety, posing serious challenges to the provision of security and justice.”

From “Small Arms Survey 2007: Guns and The City” [from the the Small Arms Survey website (see publications tab)] (website address <http://www.smallarmssurvey.org/files/sas/publications/yearb2007.html>) (Accessed August 31, 2007)

15) *The Global Drugs Trade and The Global Arms Trade, 2002*

“The global drugs trade and the global arms trade are integral to violence in both developing and industrialized countries. Even modest progress on either front will contribute to reducing the amount and degree of violence suffered by millions of people. To date, however—and despite their high profile in the world arena—no solutions seem to be in sight for these problems.”

From the “World Report on Violence and Health” (World Health Organization Geneva 2002) in Chapter 9 “The Way Forward: Recommendations for Action” p. 254 (at <http://whqlibdoc.who.int/hq/2002/9241545615.pdf>) (Accessed June 16, 2007)

16) *Worldwide Military Expenditures, 1996-2005*

“According to an estimate by the Stockholm International Peace Research Institute, world military expenditures for the years 1996-2005 totaled 8.327 trillion dollars (\$8,327,000,000,000) (8,327 billion dollars).

(from “Table on World and Regional Military Expenditures 1988-2005” in “Sipri Data on Military Expenditure” section of Stockholm International Peace Research Institute website (http://www.sipri.org/contents/milap/milex/mex_wnr_table.html) (Accessed June 9, 2007)

17) *Land (in hectares)(worldwide) which presents no serious limitations to agriculture*
(Note: 1 hectare = 2.471 acres)

“Not all the soil which covers the Earth’s ice-free land surface is suited for growing crops. In fact, of the total area of some 13 billion hectares, a mere 11% represents no serious limitations to agriculture. The rest is either too dry, too wet, too poor in nutrients, too shallow, or too cold.”

(from “Gaia: An Atlas of Planetary Management” by Dr. Norman Myers (Ed.)
Doubleday and Company Garden City 1984 p.24)

18) *% of Total Labor Force working as Farmers, U.S., 1790-1990*

1790—Farmers made up about 90% of labor force
1840—Farmers made up about 69% of labor force
1850—Farmers made up about 64% of labor force
1860—Farmers made up about 58% of labor force
1870—Farmers made up about 53% of labor force
1880—Farmers made up about 49% of labor force
1890—Farmers made up about 43% of labor force
1900—Farmers made up about 38% of labor force
1910—Farmers made up about 31% of labor force
1920—Farmers made up about 27% of labor force
1930—Farmers made up about 21% of labor force
1940—Farmers made up about 18% of labor force
1950—Farmers made up about 12.2% of labor force
1960—Farmers made up about 8.3% of labor force
1970—Farmers made up about 4.6% of labor force
1980—Farmers made up about 3.4% of labor force
1990—Farmers made up about 2.6% of labor force

[from “A History of American Agriculture 1776-1990 (Farmers and the Land)”
(first accessed at the website of the United States Department of Agriculture,
in August, 2001) (currently accessible at www.about.com, in the section titled
“Inventors”-- web address <http://inventors.about.com/library/inventors/blfarm4.htm>)]
(Accessed June 16, 2007)

Appendix 1

The IPCR Mission Statement

The Interfaith Peacebuilding and Community Revitalization (IPCR) Initiative is an effort to facilitate the practical application of the Eight IPCR Concepts (“Community Good News Networks,” “Community Faith Mentoring Networks,” “Spiritual Friendships,” “Questionnaires That Help Build Caring Communities,” “Community Visioning Initiatives for Peace,” “Spiritually Responsible Investing,” “Ecological Sustainability,” and “IPCR Journal/Newsletters”)—at the local and regional level—as a way of contributing to the following goals:

- 1) “... bringing to the fore what is often hidden: how many good people there are, how many ways there are to do good, and how much happiness comes to those who extend help as well as to those who receive it.”
- 2) increasing our collective capacity to encourage and inspire individual spiritual formation—with all the beneficial consequences that follow for individuals, communities, regions. etc.
- 3) building trust among people from different faith communities and cultural traditions
- 4) increasing our capacity to be responsible stewards of our time, energy, and money
- 5) increasing our capacity to access what is necessary for basic human needs and quality of life through principles and practices of ecological sustainability and permaculture, especially in light of the implications of global warming, ecological footprint analysis, and the “peaking” of our finite supplies of oil
- 6) increasing our awareness of the countless number of ‘things people can do in the everyday circumstances of their lives’ which will contribute to peacebuilding, community revitalization, and ecological sustainability efforts, in our own communities and regions—and in other parts of the world
- 7) reducing the incidence of violence—and all the costs associated with war
- 8) increasing emergency assistance to people with basic human needs
- 9) reflecting an understanding of the value of silence
- 10) creating local community and regional publications that provide a format for sharing the good news which would be identified, encouraged, supported, and sustained by contributions to the first 9 goals

Appendix 2

105 Related Fields of Activity

[which are in some way—or which are in many ways—
related to the goals of The IPCR Mission Statement]

accountability indicators, alleviating hunger, alleviating poverty, alternative gifts, appropriate technology, barter networks, biodynamic agriculture, building civic skills, building community, car-free zones, character education, citizen participation, citizen peacebuilding, co-housing, community banks, community development, community economics, community gardens, community good news networks, community journals, community land trusts, community membership agreements, community revitalization, community revolving loans, community self-awareness, community service work, community supported agriculture, community supported manufacturing, community visioning initiatives, consensus decision making, cottage industries, creative commons, cultural diversity, development assistance, disease control, eco-classifieds, ecological architecture, ecological footprint analysis, ecological tipping points, economic conversion, edible schoolyards, emergency humanitarian aid, emergency medical assistance, energy conservation, energy descent pathways, energy farms, fair trade, faith-based educational institutions, faith mentoring, farmers markets, food co-ops, green living, green politics, green purchasing, green retrofitting, holistic health care, homesteading, identifying problems and solutions, inclusive decision-making processes, individual spiritual formation, inspiring role models, interfaith dialogue, interfaith peacebuilding, intergenerational projects, local community points of entry, local currency, locally based food processing, locally grown organic food, low impact transport systems, medical assistance, meditation, mentoring, neighborhood revitalization, non-profit human service organizations, non-violent conflict resolution, oil depletion protocol, peace studies programs, peak oil, permaculture, positive news, powerdown projects, preventative health care, questionnaire construction, recycling, relocalization, renewable resources, right livelihood, right livelihood employment listings, rural renaissance, socially engaged spirituality, socially responsible investing, solutions journalism, spiritual discipline, spiritual diversity, spiritual friendships, spiritually responsible investing, sustainable health care, vegetarian nutrition, village design, village industries, violence prevention, voluntary simplicity, water conservation, win-win conflict resolution, world population awareness, yoga, zero waste, etc.

Notes and References

1. From John D. Haas “Future Studies in K-12 Curriculum” Social Science Educational Consortium 1988 (page number not retrieved)

2. Here is one example of evidence which leads to the conclusion stated in “Challenge #2”:

“The global drugs trade and the global arms trade are integral to violence in both developing and industrialized countries. Even modest progress on either front will contribute to reducing the amount and degree of violence suffered by millions of people. To date, however—and despite their high profile in the world arena—no solutions seem to be in sight for these problems.”

From the “World Report on Violence and Health” (World Health Organization Geneva 2002) in Chapter 9 “The Way Forward: Recommendations for Action” p. 254 (at <http://whqlibdoc.who.int/hq/2002/9241545615.pdf>) (Accessed June 16, 2007)

3. Daniel Lerch from *Post Carbon Cities: Planning for Energy and Climate Uncertainty (A Guidebook on Peak Oil and Global Warming for Local Governments)* (Free Abridged Version) <http://postcarboncities.net/guidebook> (see “Executive Summary” paragraph 4) Post Carbon Institute 2007 (Accessed August 24, 2007)

4. From the “Hirsch Report” [*“The Peaking of World Oil Production: Impacts, Mitigation and Risk Management”*]—Project Leader: Robert L. Hirsch (SAIC) Commissioned by the Department of Energy, and dated February, 2005] [Accessible at the website of Roscoe Bartlett (R-MD)(USA) at www.bartlett.house.gov/EnergyUpdates/ (Accessed August 24, 2007)] Note: The first sentence quoted are from the section “Executive Summary” (see paragraph 1 on p. 4) The second sentence quoted are from the section “Summary and Concluding Remarks” (see Point #3: “Oil Peaking Presents a Unique Challenge”; on p. 64).

Consider also the following quote from Richard Heinberg:

“The human community’s central task for the coming decades must be the undoing of its dependence on oil, coal, and natural gas in order to deal with the twin crises of resource depletion and climate chaos. It is surely fair to say that fossil fuel dependency constitutes a systemic problem of a kind and scale that no society has ever had to address before. If we are to deal with this challenge successfully, we must engage in systemic thinking that leads to sustained, bold action.”

From Richard Heinberg’s Museletter #184 titled “A View from Oil’s Peak” (at <http://www.richardheinberg.com/museletter/184>) (from closing paragraph) (Accessed September 6, 2007) (from Richard Heinberg’s website at <http://www.richardheinberg.com/>) [Note: Richard Heinberg is widely acknowledged as one of the world’s foremost Peak Oil educators. He is a journalist, educator, editor, lecturer, and a Core Faculty member of New College of California, where collaborative efforts between faculty, students, and a variety of other “stakeholders” are

creating models for “Powerdown” efforts at the regional and community level. Some of the books he has written: *The Party's Over: Oil, War, and the Fate of Industrial Societies*; *Powerdown: The Oil Depletion Protocol: A Plan to Avert Wars, Terrorism, and Economic Collapse*; and *Peak Everything: Waking Up to a Century of Declines*”]

[Additional Note: Less and less availability of cheap oil will directly impact much more of the infrastructure of modern industrial society than most of us can easily imagine. (For some examples, see “The Oil Crash and You” by Bruce Thomson at www.oilcrash.com/roe.htm Note: Bruce Thomson is a technical writer in New Zealand, and moderator of the RunningonEmpty2 Internet Discussion Forum, which assisted in creating the document.)]

5. From pre-conference information for “Teach In: Confronting the Global Triple Crises—Climate Change, Peak Oil (The End of Cheap Energy), and Global Resource Depletion and Extinction” (September 14-17, 2007 at The George Washington University Lisner Auditorium in Washington D.C.) Sponsored by The International Forum on Globalization (www.ifg.org) and The Institute on Policy Studies (with other co-sponsors) From Teach-In Flyer and Draft Program at http://www.ifg.org/events/Triple_Crisis_Speakers.pdf (see p. 2)

6. Consider the following analysis from “Revisiting Carrying Capacity: Area Based Indicators of Sustainability”, by William E. Rees, 1996, (at www.dieoff.org/page110.htm) (Accessed June 9, 2007) in light of the activity necessary to overcome the challenges of global warming and “peak oil”....

“Cities necessarily appropriate the ecological output and life support functions of distant regions all over the world through commercial trade and the natural biogeochemical cycles of energy and material. Indeed, the annual flows of natural income required by any defined population can be called its ‘appropriated carrying capacity.’ Since for every material flow there must be a corresponding land/ecosystem source or sink, the total area of land/water required to sustain these flows on a continuous basis is the true ‘ecological footprint’ of the referent population on the Earth.” [see section “Appropriating Carrying Capacity and Ecological Footprints” (paragraph 5)]

“... as a result of high population densities, the enormous increase in per capita energy and material consumption made possible by (and required by) technology, and universally increasing dependencies on trade, the ecological locations of human settlements no longer coincide with their geographic locations. Twentieth century cities and industrial regions are dependent for survival and growth on a vast and increasingly global hinterland of ecologically productive landscapes.” [see section “Appropriating Carrying Capacity and Ecological Footprints” (paragraph 4)]

and the following statistics--

From Press Release (August 13, 2002) “Londoners Running Up Massive Debt on Earth’s Resources” at www.citylimitslondon.com/city_limits_press_release.htm (Accessed June 10, 2007)

“Forty one per cent of the Ecological Footprint (2.80 gha) is accounted for by the food Londoners eat.... In total, London consumes 6.9 million tones of food (per year), more than three quarters of which is imported. London throws away 560,000 tonnes of food (per year) as waste.”