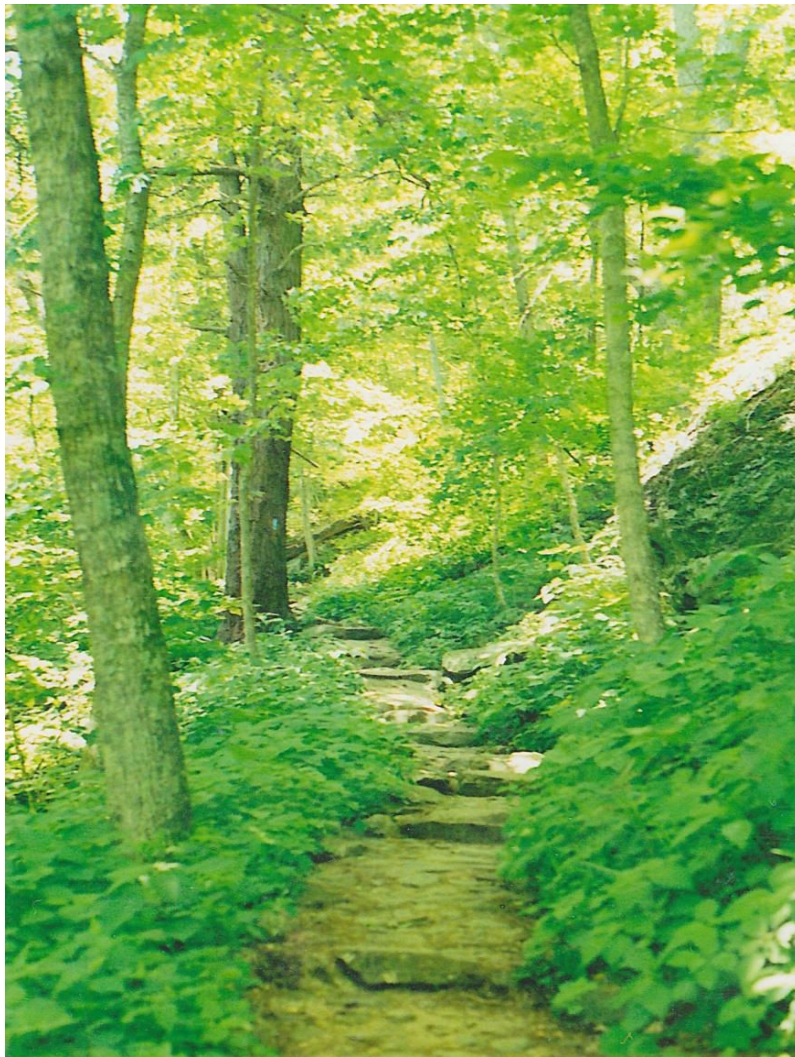


Do We Have Moral Compasses We Can Rely On?

by Stefan Pasti, Founder and Resource Coordinator

The Community Peacebuilding and Cultural Sustainability (CPCS) Initiative (www.cpci.org)

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(photo above by Stefan Pasti)

[part of White Oak Canyon Trail in Shenandoah National Park, Virginia (USA)]

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Introduction

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1) Analysis supported by much credible evidence--that there are many danger signs flashing now (involving significant threats to ecological stability and social cohesion)--can be easily lost amidst a swirl of misinformation, other more trivial information, and the “siren song” of multiple entertainment venues.

a) “Identity and meaning are part of every human life in all world cultures. Meaning is generated from our sense of identity and from the information we receive. Our cultures give us messages about desirable identities (who we are, who we seek to be, and how we relate to others) and sources of meaning (what matters and why).”

“In her book *In Search of Human Nature*, Mary Clark... tells us that these worldviews are tacitly communicated by ‘origin myths, narrative stories, linguistic metaphors, and cautionary tales’, and that they ‘set the ground rules for shared cultural meaning’.”

[From article “Cultural and Worldview Frames” by Michelle LeBaron at the website Beyond Intractability (at https://www.beyondintractability.org/essay/cultural_frames) (paragraphs 3 and 4)]

b) “Popular programming reflects a level of acceptance and shared values among large numbers of people. People tend to watch programs that meet their approval. If they are truly offended by violent programs, they would not watch them. In that sense, media programming can be regarded as a text that reflects the attitudes, values, behaviors, preoccupations, and myths that define a culture.”

“At the same time, media programming reinforces cultural attitudes, values, behaviors, preoccupations, and myths. Media messages are communicated through the countless hours of media programming that repeat, directly or indirectly, the cultural script.”

“Finally, the media do not merely reflect or reinforce culture, but in fact shape attitudes, values, behavior, preoccupations, and myths.”

[From “International Communications: A Media Literacy Approach” by Art Silverblatt and Nikolai Zlobin M.E. Sharpe July, 2004)(p. 66 and 68) (content accessible at Google Books at <https://books.google.com/books?id=Ife9Kg5B2BwC&printsec=frontcover&dq=International+Communications:+A+Media+Literacy+Approach&hl=en&sa=X&ei=u-rwVLvIA4mQyQSq8oK4DA&ved=0CCcQ6AEwAA#v=onepage&q=media%20programming&f=false>)

c) We now live in the most complex cultural landscapes ever created on Planet Earth

Widespread access to the search engines on the Internet; Wikipedia; YouTube; Social Media (Facebook, Twitter, etc.); professional networks, etc. on Ning Platforms; iPhones and iPads; television networks; cable networks; newspapers; and radios mean that however carefully schools attend to their social responsibilities, there are countless ways in which “unworthy features” of our complex world can counteract, rather than reinforce, important educational goals.

d) Sorting out what are real challenges and what are sound and practical solutions is becoming more and more difficult--as there are now, in most communities 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. Thus, even analysis supported by much credible evidence--that there are many danger signs flashing now (involving significant threats to ecological stability and social cohesion)--can be easily lost amidst a swirl of misinformation, other more trivial information, and the “siren song” of multiple entertainment venues.

2) Unfortunately....

a) Unfortunately, there are many people in our communities who--regardless of the difficulties and urgencies associated with resolving multiple crises--choose to focus their attention on trying to make money by preying on people’s fears, manipulating people’s trust, and/or encouraging people to abandon hope in higher aspirations, and indulge in unhealthy, or immoral behavior. Such behavior is clearly counterproductive to the building of caring communities; it can be very dangerous for community morale; and it can become a crippling obstacle in times of crises.

b) As readers will see (in Sections A and B of this paper), there has been such people [reference to a) above] in our communities in the distant past, and there are many such many people in our communities now.

Here are six comments and observations from Sections A and B which may help clarify the kinds of people I am talking about.

i) “Brother! You say you have not come to get our land or our money, but to enlighten our minds.”
(p. 8)

ii) “The pursuit of selfish goals in the material realm was viewed as conducive to public good so long as egoistic materialism takes places within a framework of moral absolutism in the private realm.” (p. 11)

iii) “... the unpaid and underpaid care work done primarily by women and girls around the world.” (p. 57)

iv) Existing policies and market incentives... allow businesses to run up significant, largely unaccounted for, and unchecked *social and environmental externalities.*” (p. 14)

v) “Floods Are Getting Worse, and 2,500 Chemical Sites Lie in the Water’s Path” (USA) (p. 33)

vi) One of the most persistent ironies in life is that with so many opportunities to provide real assistance to fellow human beings, there are still many, many people in this world who cannot find a “way to earn a living” providing such assistance. (p. 15)

c) It has taken a lot of being confused about the cardinal directions on our moral compasses to get where we are (global warming can be understood as the cumulative result of many other unresolved issues, which have in themselves become critical challenges)--and many of the unresolved issues contributing to global warming have been around since the dawn of civilization (Ex: cultures of violence, greed, corruption, and overindulgence).

This writer believes we will need to make unprecedented progress towards resolving these timeless challenges of human nature--*even though these challenges have become so common that many of us accept such as inevitable.* Thus, we are in uncharted territory, for there is no culture or association of societies that ever existed on planet Earth which has had to resolve the kind of challenges the next few generations of people will have to resolve.

And thus this writer believes we have arrived at a critical crossroads... and a question every culture which ever had a harmonious relationship with Nature--and their fellow human beings--had to answer wisely to carry on:

There will need to be sacrifices made by everyone, everywhere.

What will be sacrificed, and why?

3) We are what our work makes of us

a) This 143 page paper “Do We Have Moral Compasses We Can Rely One?” is an effort to contribute to public discourse on the subjects of:

--the challenges of our times

--the urgency associated with reaching positive tipping points regarding those challenges

--and how we can best use field specific solutions, collaborative problem solving processes, and working definitions of “right livelihood” and “moral compasses”

--so that we can maximize citizen participation, accelerate solution-oriented activity, and, as quickly as possible, reach positive tipping points on many of such challenges at the same time.

b) Section C, titled “The smaller the circumference, the more accurately can we gauge the results of our actions....”--

and subtitled “... a belief that the primary reward of work should be well-being rather than money....”--

--outlines approaches to human settlements this writer would describe as having the highest probability for Zero Carbon, Sustainable BioDiversity, Gender Equitable, Socio-Cultural Equitable (carbon footprint, eco-footprint, water footprint, etc.), equal justice, requisite emergency aid, and peaceful outcomes.

These approaches to human settlements (in Section C) are highlighted and emphasized not because we have everything we need to carry out these approaches, but because we don't have everything we need no matter what approaches we try to get out of many-danger-signs-flashing circumstances--and the approaches in Section C have the most potential to both bring us to our “right minds”, and establish a sound foundation for Zero Carbon Resilience, Sustainable BioDiversity and more. Why? Because always--even if we know how to make many complicated products which delight us--we have to consider what kind of ways of earning a living we are creating, and what our work makes *of us, and the world we live in.*

c) “... there are truths which none can be free to ignore, if one is to have that wisdom through which life can become useful. These are the truths concerning the structures of the good life and concerning the factual conditions by which it may be achieved....”

[From “General Education in a Free Society” (The Harvard Committee, 1945)] (accessible in “American Higher Education Transformed 1940-2005: Documenting the National Discourse” Ed. Wilson Smith and Thomas Bender (accessible at google books through key word search, or see p. 20)]

“Work absorbs most of our waking hours, and many of the problems connected with work and our dealings with our fellow man are what determine the nature of our life. Therefore, it behooves us to sit up and take note of what our work makes of us....”

“The function of work should be to practice our ideal of life.”

[Last two quotes above from “Why the Village Movement?” by J.C. Kumarappa The All India Village Industries Wardha, C.P, 1946 (at <https://archive.org/details/in.ernet.dli.2015.118819>) (p. 48 and p. 138, *using page numbers in the book*)]

4) The investments of time, energy, and money (the “votes”) each of us make in our everyday circumstances become the larger economy.

a) What we need more of now are collaborative problem solving processes which help citizens understand that the investments of time, energy, and money (the “votes”) each of us make in our everyday circumstances become the larger economy. And that wisely directed, such “votes” can result in countless ways of earning a living which contribute to the peacebuilding, community revitalization, and ecological sustainability efforts necessary to drastically reduce Greenhouse Gas Emissions, and minimize other related challenges. Citizens from every variety of circumstances can learn how to wisely cast such “votes” --through workshops and meetings at Neighborhood Learning Centers (during a Community Visioning Initiative, for example) and through other local learning experiences.

b) Community Visioning Initiatives can be described as a series of community meetings designed to facilitate the process of brainstorming ideas, organizing the ideas into goals, prioritizing the goals, and identifying doable steps.

The Community Peacebuilding and Cultural Sustainability (CPCS) Initiative advocates for a combination of preliminary surveys to 150 key leaders in local communities, time-intensive Community Visioning Initiatives supported by many Neighborhood Learning Centers (offering workshops suggested by the preliminary surveys); job fairs; local currencies; and community service from local newspapers as a starting point for maximizing citizen participation, and accelerating solution-oriented activity.

As a part of such a “constellations of initiatives” approach, having many Neighborhood Learning Centers can provide places in local neighborhoods for discussion, information sharing, mutual support and encouragement, fellowship and friendship--so that the exchanging of information and resources will also include the building of a “close-knit” community of people (who now have many new opportunities to help and support each other towards common goals).

This “constellation of initiatives” approach to collaborative problem solving and citizen peacebuilding emphasizes “asking for ideas”; personal and civic responsibility; maximizing citizen participation in identifying challenges, and in solution-oriented activity; giving people an opportunity to become actively involved in a solution-charged environment; and minimizing the risk of transformation unemployment.

This “constellation of initiatives” approach to collaborative problem solving and citizen peacebuilding can assist with creating affordable education systems with numerous associated local learning networks; assist with outreach, partnership formation, project development, and service capacity for both existing (and forming) organizations and businesses; and will inevitably create increasing numbers of solution-oriented and sustainable jobs.

c) The job fairs which come at the end of the Community Visioning Initiative process provide opportunities for all key stakeholders in the community (businesses, organizations, institutions, government, etc.) to demonstrate their upgraded awareness--and their interest in the welfare of the community--by offering and facilitating new employment opportunities... and thus helping with a just transition from patterns of investment which in only limited ways represent solutions to prioritized challenges to patterns of investment which in many ways represent solutions to prioritized challenges.

One aspect of this just transition can be that people who do deliberately focus their investments of time, energy, and money towards solutions identified by the Community Visioning Initiative being carried out in their community may receive, as encouragement, local currency. And such local currency can, in its turn, be redeemed in ways which can be particularly helpful to people transitioning from less solution-oriented employment to more solution-oriented employment.

d) Online Stakeholder Engagement

While there are advantages to in-person Community Visioning/stakeholder engagement (especially in local communities), there are many online stakeholder engagement platforms with very helpful tools and resources.

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Below are some of the online engagement features available thru Engagement Hub (at <https://engagementhub.com.au/software-features>).

(Note: the writer of this letter has no affiliation with Engagement Hub--these features are highlighted here to help readers of this letter visualize the potential of online Stakeholder Engagement.)

“Overview--Introduce your stakeholders to your consultation with a summary of your project, including an image or a video. Determine if your project is public, viewable by all, or private, by invitation only.

Timeline--Publicly display your engagement process and other key project dates. This allows your stakeholders to have the complete picture of the process and where they can get involved.

Latest News/Blog--Keep your stakeholders and community informed with project updates, media releases, opportunities and consultation outcomes. Include links and add attachment or images to maximize your impact.

Events--Notify and encourage your community to attend workshops, forums and events. This is a complete event registration system including stakeholder electronic diary integration!

Community Chat--Open up conversations with your stakeholders and community with our online forum.

Surveys--Our flexible survey tool enables unlimited surveys and feedback forms with a range of question types including a WYSIWYG. Stakeholders can save draft surveys prior to submission.

Document Library--Include support information, relevant plans, documents, spreadsheets and presentations in a simple categorised filing system. The Library makes it so easy for your stakeholders to navigate a lot of information.

Project Links--The Project Links enables you to provide a list of relevant external websites.”

e) Retrofitting small cities, towns, and villages

Here are some of the indications which have convinced this writer offered in his advocacy for modern agriculture based villages in 1991--and why he believes now that using approaches like those outlined in Section C to retrofit small cities, towns, and villages offer the highest probability for Zero Carbon Resilience, Sustainable BioDiversity, gender equitable, socio-cultural equitable (carbon footprints, eco-footprints and water footprints), equal justice, requisite emergency aid, and peaceful outcomes

Retrofitting small cities, towns, and villages can:

i) contribute to community and regional decision-making

--by giving anyone the opportunity to experience first hand what products and innovations are basic and essential to individual, community, and regional well-being

--by providing an estimate of Sustainable BioDiversity carrying capacity, and therefore an indication concerning limits to population growth

ii) contribute comparable individual and environmental health at less cost

- by providing healthy locally grown food
- by providing jobs that involve regular healthy exercise
- by creating more contributing roles for the elders of the village
- by creating more extended family support
- by creating more easily arranged child care
- by offering apprenticeship and production facilities for emotionally and physically (challenged) people
- by reducing emotional stress relating to continuous complex crisis management
- by offering games, chores, village dances, fairs, celebrations, and holidays all of which provide a continuous variety of positive social activities—without a need for drugs (or alcohol)
- by decreasing the need for expensive entertainment and excessive material accumulation
- by decreasing criminal activity and violence, and therefore the violent means of protection required to guard against such experiences
- by decreasing the welfare and human services required from the local, state, and national governmental institutions
- by increasing consumption of local products made without creating toxic waste
- by increasing recycling and reducing consumption, and therefore reducing the state garbage disposal budget
- by decreasing the number of cars on the road, and therefore the number of car-related accidents, and the amount of car-related pollution
- by increasing the awareness of local healthy water resources and how to maintain them
- by offering job apprenticeships as university curriculum, visits for community and regional planning insight, and visits to a health resort, social center, and peace settlement—and thereby securing revenues for complex medical products and surgical services (and for other products and services that cannot be produced locally)
- by offering all residents a work environment that is safe and beautiful

[i) and ii) above are from “Where a Village is Tended, a Toxic Waste Dump Cannot Grow” (a 16 page outreach document which this writer (SP) compiled and wrote in April-May, 1991) (Note: since I saved this document by scanning it, the document is approximately 22.6 MB in size... so, it is best accessible through the link on the webpage “Collected Writings of Stefan Pasti” at <https://www.cpcsi.org/collected-writings.html> see entry #9, and the quotes are from the page after a reproduction of the “Freedom of Speech” print by Norman Rockwell)]

f) It is in such a context--in the most complex cultural landscapes ever created, and at a time of unprecedented challenges--that there is a profound need for not just schools, but all citizens, to recognize their social responsibilities to identify, preserve, and reinforce only those cultural building blocks which contribute to achieving positive tipping points on critical challenges, reinforce the foundations for the good life, and “make for a better future society” (quoting John Dewey, see p. 12).

And it is in such a context, that it is now essential for us to access the storehouses of wisdom and compassion which have accumulated over the many centuries of human experience, and which have been confirmed again and again as essential to individual well-being and social harmony by the saints, sages, spiritual leaders, and sincere practitioners of all religious, spiritual, and moral traditions.

Wisely directed, the investments of time, energy, and money (the “votes”) each of us make in our everyday circumstances can result in countless ways of earning a living *which contribute to--rather than impair--* Zero Carbon Resilience, Sustainable BioDiversity, gender equitable, socio-cultural equitable (carbon footprints, eco-footprints and water footprints), equal justice, requisite emergency aid, and peaceful outcomes--AND accelerate movement towards the most positive tipping points at the same time. Citizens from every variety of circumstances can learn how to wisely cast such “votes”, through workshops and meetings at Neighborhood Learning Centers (during a Community Visioning Initiative, for example) and through other local learning experiences.

4) The kind of truthful public discussion we really need to be having

Section D includes some example questions (such as would be included in a survey of key local leaders) which can help us move from the kind of truthful public discussion we are having, and the kind of truthful public discussion we really need to be having.

Especially important would be the example question offered titled “Evaluating Community Resilience” (p. 101-102).

5) The Appendices

Three special sources which can help us to think about right livelihood and moral compasses are included in The Appendices.

6) About the “arrangement of excerpts” format

a) Using an arrangement of excerpts format brings forward many key insights and leading indicators in a short amount of organized space--which can (as it does in many media experiences) increase the opportunities and effectiveness of “gestalts” or “connecting the dots” experiences. The Table of Contents (p. iii-xiv) is detailed to provide a special opportunity for “connecting the dots” experiences.

b) While this paper is mostly quoted material from reports, websites, articles, etc., the way this writer feels about creating a document like this is:

--we live in the most complex cultural landscapes ever created on Planet Earth, and there is a need for specially curated papers, and especially appropriately source-referenced papers, to help connect some of the dots

--this paper is offered for free as an educational resource, and therefore some consideration can be given to the concept of “Fair Use”, (here are two links: an [overview of “fair use” by the U.S. Copyright Office](#), and the [Wikipedia webpage for “fair use”](#))

--(hopefully) one of the valuable educational outcomes of this paper is introducing readers to a wide range of constructive and inspiring work (or “labors of love”)--at a time when we very much need to be learning about a wide range of constructive and inspiring activity.

Stefan Pasti
Fulton, MO
April, 2021

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14) “(In the U.S.) Commercially spent nuclear fuel is stored at reactor sites where the electricity was generated. High-level radioactive waste and spent fuel from national defense activities is stored at several DOE managed sites. While this temporary storage is safe in the near-term, we need a sustainable, long-term solution.”	51
[Source--U.S. Department of Energy poster, see h) below]	
a) “As of April 2020, there are 440 operable power reactors in the world.... Additionally, there are 55 reactors under construction and 109 reactors planned....”	51
b) “The NRC [Nuclear Regulatory Commission (USA)] believes spent fuel pools and dry casks both provide adequate protection for public health and safety and the environment.”	51
c) “The nation (U.S.) has over 80,000 metric tons of spent nuclear fuel from commercial nuclear power plants.”	53
d) Decommissioning options for nuclear plants.....	54

e) "As of 2016, 150 nuclear reactors (worldwide) were shut-off, in several early and intermediate stages (cold shut-down, defueling, SAFSTOR, internal demolition), but only 17 have been taken to fully 'greenfield status'." 55

f) As of 2017, a total of 10 commercial nuclear reactors in the United States have been successfully decommissioned, and another 20 U.S. nuclear reactors are currently in different stages of the decommissioning process." 55

g) "Plutonium must be made permanently inaccessible because it has a radioactive half-life of 24,000 years." "... there are 54 metric tons of surplus plutonium." "The federal government now has no solution in sight to dispose of the plutonium permanently." 56

h) Nuclear Waste in the United States (poster) (U.S. Department of Energy)..... 56

i) "America's Radioactive Secret: Oil-and-gas wells produce nearly trillion gallons of toxic waste/year. Investigation shows how it could be... contaminating communities across America" 57

 i) "This radioactivity is often pulled to the surface when oil and gas is extracted--carried largely in the brine." 57

 ii) "Brine-spreading is legal in 13 states, including the Dakotas, Colorado, much of the Upper Midwest, northern Appalachia, and New York...." 58

 iii) "There are now more than 350 of these legacy lawsuits moving forward in the state (Louisiana)." 59

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 b) "If everyone were to sit on their wealth piled up in \$100 bills, most of humanity would be sitting on the floor. A middle-class person in a rich country would be sitting at the height of a chair. The world's two richest men would be sitting in outer space." 60

 c) "The challenge, as U.S. federal authorities realize, is that many of these raw materials are produced in limited amounts domestically." 61
 ("35 Minerals Absolutely Critical to U.S. Security")

 d) "As of 2015, 29 percent of people globally suffer from lack of access to safely managed drinking water. More than double that number are at risk for water contamination from improper wastewater management." 62

 e) "There is a water main break every two minutes, and an estimated 6 billion gallons of treated water lost each day in the U.S.--enough to fill over 9,000 swimming pools.".. 63

 f) "The richest 5% (c. 315 million people) were responsible for over a third (37%) of the total growth in emissions." 64

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17) “Some might assume that bond markets are shielded from the effects of climate change, ecosystem degradation, and water scarcity. With more than \$40 trillion of sovereign debt in global markets at any given time, that is a very high-risk game.” 70

18) “The effects of climate policies have been too small to offset the impact of key drivers of emissions such as economic growth and population growth.” 70

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 a) From “Why the Village Movement?” by J.C. Kumarappa..... 71

 b) “... Ecovillage Design Education (EDE) curriculum, which draws from the experience and expertise of a network of some of the most successful ecovillages and community projects across the Earth....” 71

 i) “... a new kind of global education, specifically designed to meet the challenges and opportunities of the 21st century...” 71

 ii) “The EDE curriculum is a free resource for anyone wishing to learn about sustainability principles, and especially for those who might like to teach the EDE in their local area.” 73

 c) “... a preference for country life... a concern for family nurture and community cohesion....” .. 74

 d) Permaculture..... 75

 i) “It should be possible to design land use systems which approach the solar energy harvesting capacities of natural systems while providing humanity with its needs. This was the original premise of the permaculture concept.” 75

 ii) “Carefully observing natural patterns characteristic of a particular site, the permaculture designer gradually discerns optimal methods for integrating water catchment, human shelter, and energy systems with tree crops, edible and useful perennial plants, domestic and wild animals and aquaculture.” 75

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iii) “Water collection, management, and reuse systems like Keyline, greywater, rain catchment, constructed wetlands, aquaponics (the integration of hydroponics with recirculating aquaculture), and solar aquatic ponds (also known as Living Machines) play an important role in permaculture designs.”	76
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i) “There is no shortage of evidence that humanity is entering a very serious place.”..	89
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iii) “... we take an in-depth look at 18 case studies of scenarios. These are drawn from 130 scenarios that model net zero, deep decarbonisation, and using up to 100% renewable energy.”	89
iv) “It is an ethical imperative that all scenarios also embrace climate equity... The way we share this out must embrace developing country needs to lift citizens out of poverty and to increase quality of life.”	90
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excessive affluence. The movement’s holistic approach is based on Buddhist principles (including goodness, sympathy, and tranquility) and on the Gandhian values of truthfulness, nonviolence, and self-sacrifice.”]

- j) “From the very beginning, at Tuskegee, I was determined to have the students do not only the agricultural and domestic work, but to have them erect their own buildings.” (Booker T. Washington)..... 94
 - i) “... in the teaching of civilization, self-help, and self-reliance, the erection of buildings by the students themselves would more than compensate for any lack of comfort or fine finish.” 94
 - ii) “Many white people who had had no contact with the school, and perhaps no sympathy with it, came to us to buy bricks because they found out that ours were good bricks. They discovered that we were supplying a real want in the community.”.. 95
 - iii) “As an additional result, hundreds of men are now scattered throughout the South who received their knowledge of mechanics while being taught how to erect these buildings.” 96
 - iv) “The people with whom he lives and works are going to think twice before they part with such a man.” 96
 - v) “... the Rosenwald Fund. Using state-of-the-art architectural plans designed by professors at Tuskegee Institute, the fund spent more than four million dollars to build 4,977 schools, 217 teacher homes, and 163 shop buildings in 883 counties in 15 states, from Maryland to Texas. The Rosenwald Fund was based on a system of matching grants, requiring white school boards to commit to maintenance and black communities to aid in construction.” 96
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 - i) “The Appropriate Technology (AT) Library contains the full text and images from over 1050 of the best books dealing with all areas of self-reliance, do-it-yourself technology--over 150,000 pages. Portable and easy to use on 1 USB drive. The AT Library is currently in use in over 74 countries worldwide.” 97
 - ii) “The AT Library gives you the knowledge to solve real-world problems such as: harvesting clean drinking water, making tools, growing your own crops, building and maintaining an irrigation system, preserving crops, reforesting a denuded watershed, starting a small fish hatchery, building a small-scale hydropower scheme, building and maintaining pumps, treating human and animal waste, utilizing solar energy, improving rural cookstove efficiency, constructing energy efficient structures, caring for the sick, non-formal education, preparing for a natural disaster, etc.” 97
 - iii) “The AT Library is the complete text and graphics of each book, digitally scanned into Adobe PDF format.... Each book is summarized and indexed in the Appropriate Technology Sourcebook, included with each library. This format is easy to use and navigate and can be read on virtually any computer operating system. It can also be used with the most basic hardware including low MHZ laptops, tablets or smartphones.”.... 98
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A. Selected Observations on the Historical Context

1) "The sphere of rock on which we live..."

a) "... the dust of ancient stars."

"The sphere of rock on which we live coalesced from the dust of ancient stars. Orbiting round the huge hydrogen furnace of the sun, bathed by radiant energy and solar wind, the globe is white hot and molten beneath the crust: continents ride in a slow dance across its face, ocean floors spread.... The atmospheric mix of gases is entirely different not only from that of nearby planets but from what would be predicted by Earth's own chemistry. This 'improbable' state of affairs appears to have arisen alongside the evolution of life, and persisted (with minor fluctuations) despite all possible accidental perturbations of cosmic travel, for perhaps two billion years."

[From "Gaia: Atlas of Planetary Management" Dr. Norman Myers Doubleday 1986 p. 12]

b) "Our ancestors first walk upright with ten seconds to go."

"Compress this unimaginable timescale into a single 24-hour day, and the Big Bang is over in less than a ten-billionth of a second. Stable atoms form in about four seconds; but not for several hours, until early dawn, do stars and galaxies form. Our own solar system must wait for early evening, around 6 p.m. Life on Earth begins around 8 p.m., the first vertebrates crawl on to land at about 10:30 at night. Dinosaurs roam from 11:35 p.m. until four minutes to midnight. Our ancestors first walk upright with ten seconds to go. The Industrial Revolution, and all our modern age, occupy less than the last thousandth of a second. Yet in this fraction of time, the face of this planet has changed almost as much as in all the aeons before."

[From "Gaia: Atlas of Planetary Management" Dr. Norman Myers Doubleday 1986 p. 46]

2) Early Days

a) "...pay in sheep for the horseman's 'protection'"

"When the ice age starts to recede, the horsemen start north--hunting with clubs and spears. At the same time, moving much more slowly, we have the beginning of great tribes of humans following their flocks of goats and sheep as the latter lead them to the best pastures.... "Well, Mr. Shepherd... you know it's very dangerous to have such beautiful sheep out here in the wilderness." The shepherd responds, "We've been out in the wilderness for generations and we've had no trouble at all." Night after night thereafter sheep begin to disappear.... Finally, there is so much trouble that the shepherd agrees to accept and pay in sheep for the horseman's 'protection' and to operate exclusively within the horseman's self claimed land.... No one dared question the horseman's claim that he owned the land on which the horseman said the shepherd was trespassing. The horseman had his club with which to prove he was the power structure of that locale; he stood high above the shepherd and could ride in at speed to strike the shepherd's head with his club. This was how, multimellenia ago, 29th Century rackateer's 'protection' and territorial 'ownership' began."

[From "Critical Path" by R. Buckminster Fuller and Kiyoshi Kuromiya St. Martin's Publishing Group, 1981 (p. 67) (accessible through a key word search at https://www.google.com/books/edition/Critical_Path/2rPqFvn3nocC?hl=en&gbpv=0)]

b) "... the beginning of the walled city."

"'Deeds' to land evolved from deeds of arms.... This is how humans came to own land.... Thereafter, emperors psychologically fortified the cosmic aspect of their awesome power by having priests of the prevailing religions sanctify their land claiming.... The land barons discovered the most geographically logical trading points for caravanning... One day they're exchanging goods when along comes a troop of armed brigands on horseback. The head horseman says, "It's pretty dangerous exchanging valuable things out here in the wilderness. The caravaners leaders says, "No, we never have any trouble out here. We have been doing this for many generations." Then their goods begin to be stolen nightly; and finally the merchants agree to accept and pay for 'protection'. That was the beginning of the walled city. The lead baron then gave each of this supporters control of different parts of that city so that each could collect his share of 'taxes' This is how we came to what is called, archeologically, the city-state, which was to be a very powerful affair. There were two kinds: the agrarian-productivity-exploiting type and the trade-route-confluence-exploiting type."

[From "Critical Path" by R. Buckminster Fuller and Kiyoshi Kuromiya St. Martin's Publishing Group, 1981 (p. 68) (accessible through a key word search at https://www.google.com/books/edition/Critical_Path/2rPqFvn3nocC?hl=en&gbpv=0)]

c) "... in order to get their gold off the sea and out of the reach of pirates...."

"Up until 1500 BC all money was cattle, lambs, goats, pigs--live money--that was real life support wealth, wealth you could actually eat.... This gradual alteration of world trading devices from cattle to gold brought about the world-around development of pirates.... In order to get their gold off the sea and out of the reach of pirates, the British made deals with the sovereigns of all the countries around the world with whom they traded, by which it was agreed from then on to keep annual accounts of their intertrading, and at the end of the year to move the gold from the debtor's bank in London to the creditor's bank in London to balance the accounts.... This brought about what is now called the 'balance of trade' accounting."

[From "Critical Path" by R. Buckminster Fuller and Kiyoshi Kuromiya St. Martin's Publishing Group, 1981 (p. 73, and p. 75-76) (accessible through a key word search at https://www.google.com/books/edition/Critical_Path/2rPqFvn3nocC?hl=en&gbpv=0)]

d) "Beyond a certain limit, economic growth becomes detrimental to human well-being" ("The satisfaction of one's physical needs must come at a certain point to a dead stop before it degenerates into physical decadence.")

"In India, people have lived for thousands of years in a relative harmony with their surroundings: living in their homesteads, weaving homespun clothes, eating homegrown food, using homemade goods; caring for their animals, forests, and lands; celebrating the fertility of the soil with feasts; performing the stories of great epics, and building temples. Every region of India has developed its own distinctive culture, to which travelling storytellers, wandering 'saddhus', and constantly flowing streams of pilgrims have traditionally made their contribution."

"According to the principle of swadeshi, whatever is made or produced in the village must be used first and foremost by the members of the village. Trading among villages and between villages and towns should be minimal, like icing on the cake. Goods and services that cannot be generated within the community can be bought from elsewhere."

"Swadeshi avoids economic dependence on external market forces that could make the village community vulnerable. It also avoids unnecessary, unhealthy, wasteful, and therefore environmentally destructive transportation. The village must build a strong economic base to satisfy most of its needs, and all members of the village community should give priority to local goods and services."

“Every village community of free India should have its own carpenters, shoemakers, potters, builders, mechanics, farmers, engineers, weavers, teachers, bankers, merchants, traders, musicians, artists, and priests. In other words, each village should be a microcosm of India - a web of loosely inter-connected communities. Gandhi considered these villages so important that he thought they should be given the status of ‘village republics’.”

“The village community should embody the spirit of the home--an extension of the family rather than a collection of competing individuals. Gandhi's dream was not of personal self-sufficiency, not even family self-sufficiency, but the self-sufficiency of the village community....”

“...In communities practising swadeshi, economics would have a place but would not dominate society. Beyond a certain limit, economic growth becomes detrimental to human well-being. The modern worldview is that the more material goods you have, the better your life will be. But Gandhi said, ‘A certain degree of physical comfort is necessary but above a certain level it becomes a hindrance instead of a help; therefore the ideal of creating an unlimited number of wants and satisfying them, seems to be a delusion and a trap. The satisfaction of one's physical needs must come at a certain point to a dead stop before it degenerates into physical decadence.’”

[From article “Gandhi’s Swadeshi--The Economics of Permanence” by Satish Kumar (originally a chapter in "The Case Against the Global Economy - and for a turn toward the local" edited by Jerry Mander and Edward Goldsmith) (accessible in booklet “The 15th Annual Gandhi Peace Festival” (“Towards a Culture of Nonviolence, Peace, and Justice; 2007 Theme: Building Sustainable Communities”) (at <https://www.humanities.mcmaster.ca/gandhi/festival/booklets/gandhi-booklet-2007.pdf>) (see p. 12, paragraphs 2-5 and p. 13 (paragraph 3))]

e) “It was also a common belief that natural disasters such as famine and flood were divine retributions bearing signs of Heaven's displeasure with the ruler....”

“The Mandate of Heaven (Chinese: 天命; pinyin: Tiānmìng; Wade–Giles: T'ien-ming, literally ‘Heaven's will’) is a Chinese political and religious teaching that was used in ancient and imperial China to justify the rule of the King or Emperor of China. According to this belief, Heaven (天, Tian) embodies the natural order and the will of the just ruler of China, the ‘Son of Heaven’ of the ‘Celestial Empire’. If a ruler was overthrown, this was interpreted as an indication that the ruler was unworthy, and had lost the mandate. It was also a common belief that natural disasters such as famine and flood were divine retributions bearing signs of Heaven's displeasure with the ruler, so there would often be revolts following major disasters as the people saw these calamities as signs that the Mandate of Heaven had been withdrawn.”

[From the Wikipedia webpage for “Mandate of Heaven” (at https://en.wikipedia.org/wiki/Mandate_of_Heaven) (paragraph 1)]

3) “We will wait a little while, and see what effect your preaching has on them....”

a) “... no way you could produce one of these great ships unless you were very very powerful.”

“The building of a ship required that you must have acknowledged power to command all the people in the nation... all the skilled people had to be employed in the building and outfitting of your ship. In addition you had to command all the farmers who produced the food to feed not only themselves but also to feed all those skilled people while they built the ship--and to feed all your army and all your court. So there was no way you could possibly produce one of these great ships unless you were very very powerful.”

[From “Critical Path” by R. Buckminster Fuller and Kiyoshi Kuromiya St. Martin's Publishing Group, 1981 (p. 73) (accessible through a key word search at https://www.google.com/books/edition/Critical_Path/2rPqFvn3nocC?hl=en&gbpv=0)]

b) “... vied for supreme mastery of the world’s high seas lines of supply....”

“(Queen) Elizabeth I’s East India Company’s scheme was to have her national navy (and armies) first win mastery of the world’s sea-lanes. This advantage would thereafter be exploited by her privately owned enterprise. This scheme became one of the first of such national power bids for establishing and maintaining world-trade supremacy through dominance of the world’s high seas, ocean currents, trade winds, critical straits, and only seasonably favorable passages world around line of vital and desirable supplies. All the other world-power-stature individuals who vied for supreme mastery of the world’s high seas lines of supply also operated invisibly through monarchs and nations over who they had sufficient influence. Through such behind the throne influence the influenced nations resources could be politically maneuvered into paying for the building and operation of the navies and armies that would seek to establish and protect their respective privately owned enterprises.”

[From “Critical Path” by R. Buckminster Fuller and Kiyoshi Kuromiya St. Martin's Publishing Group, 1981 (in Introduction, p. xxi) (accessible through a key word search at https://www.amazon.com/Critical-Path-Kiyoshi-Kuromiya/dp/0312174918/ref=sr_1_1?crid=2SYKSGSUV02RL&dchild=1&keywords=critical+path+buckminster+fuller&qid=1617396613&srefix=critical+path+%2Caps%2C273&sr=8-1 (in Introduction, p. xxi, paragraph 3)]

c) “The Atlantic Slave Trade was the result of, among other things, labor shortage....”

“The Atlantic Slave Trade was the result of, among other things, labor shortage, itself in turn created by the desire of European colonists to exploit New World land and resources for capital profits.”

(in Section “Labour and Slavery”, paragraph 2)

“The first side of the triangle was the export of goods from Europe to Africa. A number of African kings and merchants took part in the trading of enslaved people from 1440 to about 1833. For each captive, the African rulers would receive a variety of goods from Europe. These included guns, ammunition and other factory made goods. The second leg of the triangle exported enslaved Africans across the Atlantic Ocean to the Americas and the Caribbean Islands. The third and final part of the triangle was the return of goods to Europe from the Americas. The goods were the products of slave-labour plantations and included cotton, sugar, tobacco, molasses and rum.”

(in Section “Triangular Trade”, paragraph 1)

“The trade led to the destruction of individuals and cultures.”

(in Section “Human Toll”, paragraph 2)

“Patrick Manning estimates that about 12 million slaves entered the Atlantic trade between the 16th and 19th century, but about 1.5 million died on board ship. About 10.5 million slaves arrived in the Americas.”

(in Section “Human Toll”, paragraph 3)

[From the Wikipedia webpage for “Atlantic Slave Trade” (at https://en.wikipedia.org/wiki/Atlantic_slave_trade)]

d) “We have heard that in your own country opium is prohibited with the utmost strictness and severity: this is a strong proof that you know full well how hurtful it is to mankind.”

i) Because of its strong mass appeal and addictive nature, opium was an effective solution to the British trade problem. An instant consumer market for the drug was secured.... and the flow of silver was reversed.”

“Low Chinese demand for European goods, and high European demand for Chinese goods, including tea, silk, and porcelain, forced European merchants to purchase these goods with silver, the only commodity the Chinese would accept. In modern economic terms the Chinese were demanding hard currency or specie (gold or silver coinage) as the medium of exchange for the international trade in their goods. From the mid-17th century around 28 million kilograms of silver was received by China,

principally from European powers, in exchange for Chinese goods. Britain's problem was further complicated by the fact that it had been using the gold standard from the mid-18th century and therefore had to purchase silver from other European countries, incurring an additional transaction cost.”

“In the 18th century, despite ardent protest from the Qing government, British traders began importing opium from India. Because of its strong mass appeal and addictive nature, opium was an effective solution to the British trade problem. An instant consumer market for the drug was secured by the addiction of thousands of Chinese, and the flow of silver was reversed.”

[From a copy of the Wikipedia webpage “Opium Wars” before it was revised to its current version (at https://military.wikia.org/wiki/Opium_Wars#)(see Section “British Trade and the Canton System”, paragraphs 3 and 4)]

ii) “These then know merely to advantage themselves, they care not about injuring others! This is a principle which heaven's Providence repugnates; and which mankind conjointly look upon with abhorrence!”

[Note: “In 1839, Commissioner Lin published in Canton, but did not send, an open Letter To Queen Victoria pleading for a halt to the opium contraband.” (this quote at https://en.wikipedia.org/wiki/Opium_Wars ; in Section “Background”, paragraph 10) Here are some excerpts--more source references below.]

“...of these latter are some, who, by means of introducing opium by stealth, have seduced our Chinese people, and caused every province of the land to overflow with that poison. These then know merely to advantage themselves, they care not about injuring others! This is a principle which heaven's Providence repugnates; and which mankind conjointly look upon with abhorrence! Moreover, the great emperor hearing of it, actually quivered with indignation, and especially dispatched me, the commissioner, to Canton, that in conjunction with the viceroy and lieut. governor of the province, means might be taken for its suppression!....”

“...Without meaning to say that the foreigners harbor such destructive intentions in their hearts, we yet positively assert that from their inordinate thirst after gain, they are perfectly careless about the injuries they inflict upon us! And such being the case, we should like to ask what has become of that conscience which heaven has implanted in the breasts of all men?

“We have heard that in your own country opium is prohibited with the utmost strictness and severity: this is a strong proof that you know full well how hurtful it is to mankind. Since then you do not permit it to injure your own country, you ought not to have the injurious drug transferred to another country, and above all others, how much less to the Inner Land!....”

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“Let us suppose that foreigners came from another country, and brought opium into England, and seduced the people of your country to smoke it, would not you, the sovereign of the said country, look upon such a procedure with anger, and in your just indignation endeavor to get rid of it?”

[From “Commissioner Lin: Letter to Queen Victoria, 1839” in “The Internet Modern History Sourcebook” (The text has been modernized by Prof. Jerome K. Arkenberg, Cal. State Fullerton) (at <https://sourcebooks.fordham.edu/mod/1839lin2.asp>) (Excerpts from paragraphs 3, 5, 6, and 7) (Note: The Complete Internet Modern History Sourcebook has a webpage at <http://www.fordham.edu/halsall/mod/modsbook.html>)]

e) “Brother! You say you have not come to get our land or our money, but to enlighten our minds.”

[Note: (introduction to speech in source cited below)--

“In the summer of 1805 a young missionary named Cram was sent into the country of the Six Nations by the Evangelical Missionary Society of Massachusetts to found a mission among the Senecas. A council of their chiefs was convoked to hear his propositions. These were made in a short speech to which the Indians listened with earnest attention. After a long consultation among themselves Red Jacket rose and spoke....” (His speech included the following excerpts)]

“... Brother! You say you have not come to get our land or our money, but to enlighten our minds. I will now tell you that I have been at your meetings and saw you collecting money from the meeting. I cannot tell what this money was intended for, but suppose it was for your minister; and if we should conform to your way of thinking, perhaps you may want some from us....”

“Brother! We are told that you have been preaching to the white people in this place. These people are our neighbors. We will wait a little while, and see what effect your preaching has on them. If we find it does them good and makes them honest and less disposed to cheat Indians, we will then consider again what you have said....”

[From speech “Reply to Mr. Cram” (1805) by Red Jacket (“a Seneca orator and chief of the Wolf clan, based in Western New York”--Wikipedia) in “Masterpieces Of Eloquence: Famous Orations Of Great World Leaders From Early Greece To The Present Time” (Vol. 7 of 25) Edited by Mayo W. Hazeltine, et. al. P. F. Collier and Son, New York 1905 (accessible through a key word search at https://www.google.com/books/edition/Masterpieces_of_Eloquence/4W01AQAAMAAJ?hl=en&gbpv=1)]

f) “The trader with the whiskey is certain of getting the most furs....”

“The trader with the whiskey is certain of getting the most furs....”

“In stating this fact, McKenny was unwittingly enunciating a profound truth--the force of which mankind is only now beginning to realize--that the pursuit of profit will transform natures inherently capable of much good into sordid, cruel beasts of prey, and accustom them to committing actions so despicable, so inhuman, that they would be terrified were it not that the world is under the sway of the profit system, and not merely excuses and condones, but justifies and throws a glamour about, the unutterable degradations and crimes which the profit system calls forth.”

“Living in a more advanced time, in an environment adjusted to bring out the best, instead of the worst, Astor and his hencemen might have been men of supreme goodness and gentleness. As it was, they lived in a period when it was considered the highest, most astute and successful form of trade to resort to any means, however base, to secure profits. Let not too much ignominy be cast upon their memories; they were but creatures of their time; and their time was not that ‘golden age’ so foolishly pictured, but a wild, tempestuous, contending struggle in which every man was at the throat of his fellow man, and in a vortex which statesmen, college professors, editors, and political economists all praised and sanctified as ‘progressive civilization’.”

[From “History of Great American Fortunes” by Gustavus Myers Modern Library 1937 p. 97-98 (accessible--if signed in--through the “Look Inside” feature at Amazon--see [https://www.amazon.com/History-Great-American-Fortunes-Gustavus/dp/B0006DEF3Y#:~:text=Gustavus%20Myers%20\(1872%2D1942\),volume%20updated%20version%2C%20in%201937.](https://www.amazon.com/History-Great-American-Fortunes-Gustavus/dp/B0006DEF3Y#:~:text=Gustavus%20Myers%20(1872%2D1942),volume%20updated%20version%2C%20in%201937.))]

g) “It may be that some little root of the sacred tree still lives.”

Hey! Lean to hear my feeble voice.
At the center of the sacred hoop
You have said that I should make the tree to bloom.

With tears running, O Great Spirit, my Grandfather,
With running eyes I must say
The tree has never bloomed

Here I stand, and the tree is withered.
Again, I recall the great vision you gave me.

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It may be that some little root of the sacred tree still lives.

Nourish it then

That it may leaf

And bloom

And fill with singing birds!

Hear me, that the people may once again

Find the good road

And the shielding tree.

[An excerpt from the prayer made by Black Elk in 1931, when, as an old man, he re-visited the mountain peak (location: South Dakota) where he had a life-inspiring vision. Excerpt is from "Black Elk Speaks: Being the Life Story of a Holy Man of the Oglala Sioux" by John G. Neihardt (The Premier Edition Paperback; October 16, 2008)(originally published in 1932) (p. 171-172)(accessible--if signed in--through the "Look Inside" feature at Amazon--see https://www.amazon.com/Black-Elk-Speaks-John-Neihardt/dp/0803283911/ref=sr_1_1?dchild=1&keywords=black+elk+speaks&qid=1617413137&s=books&sr=1-1)]

4) Some reviewing of the nature of capitalism

a) "Combining these two, 1) the mines and metals-producing industry and 2) the lines of supply... with 3) the absolute need of large financing and credit at magnitudes rarely affordable by any one individual, we find finance capitalism integrating the world operation."

"It is appropriate at this point to do some reviewing of evolutionary changes that had been transpiring in the nature of capitalism.... It all starts with the land-based capitalism, a capitalism maintained by whoever seized, successfully defended, and controlled the land--ergo, owned the land. In land capitalism whoever owned the land, the fertile fields, etc., controlled all the wealth to be made from that land.... Suddenly we had a completely new form of capitalism, which required both the large scale financing and the integration of metals, mines and mine owners, metals refining and shaping into wholesaleable forms, all to be established around the world by the world masters of the great line of supply.... This new form of the world power structure's capitalism--by ownership of the mines and metals working all around the world--we call the metals and mining capitalism. Whoever owned the mines had incredible power, but never as great as those who controlled the line of their supply. Combining these two: 1) the mines and metals-producing industry and 2) the lines of supply, we have the world power structure that operated as the first supranational, world-around-integrated metals cartels. They were out of reach of the laws of any one country, in a metals cartels capitalism.

Combining these two with 3) the absolute need of the large financing and credit at magnitudes rarely affordable by any one individual, we find finance capitalism integrating the world operation.”

[From “Critical Path” by R. Buckminster Fuller and Kiyoshi Kuromiya St. Martin's Publishing Group, 1981 (p. 98-99) (accessible through a key word search at https://www.google.com/books/edition/Critical_Path/2rPqFvn3nocC?hl=en&gbpv=0)]

b) “The pursuit of selfish goals in the material realm was viewed as conducive to public good so long as egoistic materialism takes places within a framework of moral absolutism in the private realm.”

“By mid-nineteenth century, according to Bellah, the biblical covenant ethos began to be seriously threatened by utilitarian individualism, a new ethos that assumed that the pursuit of private materialistic goals by individual citizens would somehow result in a collective public welfare and civic virtue. Utilitarian individualism became the legitimation for burgeoning American capitalism, since it relativized the ends, or goals, of human action and stressed the rationalization of means, or technical reason. This ethos continues its hold over American culture, despite periodic revolts against technological reason such as the counterculture of the 1960’s.” (p. 477)

The pursuit of selfish goals in the material realm was viewed as conducive to public good so long as egoistic materialism takes places within a framework of moral absolutism in the private realm. Put simply, so long as everyone upholds a limited set of negative moral absolutes--for example, not to murder, steal, fornicate, and drink--each person may pursue selfish materialistic goals and confidently expect that public welfare and civic virtue will arise from such individual egoism. Within an overall framework of moral absolutism, the ‘invisible hand’ will harmonize private egoism in the economic realm. ‘Within this moral system, so long as participants in entrepreneurial capitalism obeyed certain narrowly conceived negative injunctions, they received moral sanction for engaging in economic activities that resulted in social inequality’.” (p. 477-78)

“Essential to this synthesis of moral absolutism and utilitarianism was the premise of individual responsibility: individuals were presumed to possess a capacity to choose whether or not to be virtuous, and on that basis were held responsible for their behavior. Virtuous individuals could anticipate success in materials endeavors, while those who did not succeed were considered to be morally deficient.... Competitive individualism was thus given a moral aura.” (p. 478)

[From Chapter 25 “Civil Religion and Recent American Religious Ferment” by Thomas Robbins and Dick Anthony in “In Gods We Trust: New Patterns of Religious Pluralism in America” by Thomas Robbins and

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Dick Anthony) (re Routledge; 2nd edition; October 6, 2017)(original edition published in 1980) (above references accessible--if signed in--through the "Look Inside" feature at Amazon, using key phrases (at https://www.amazon.com/Gods-We-Trust-Religious-Pluralism/dp/113852588X/ref=sr_1_1?dchild=1&keywords=In+Gods+We+Trust%3A+New+Patterns+of+Religious+Pluralism+in+America&qid=1617421268&s=books&sr=1-1))

5) Education: Theory and Practice

a) "As a society becomes more enlightened, it realizes that it is responsible not to transmit and conserve the whole of its existing achievements, but only such as to make for a better future society."

"... it is the business of the school environment to eliminate, so far as possible, the unworthy features of the existing environment from influence on mental habitudes.... Every society gets encumbered with what is trivial, with dead wood from the past, and with what is positively perverse. The school has the duty of omitting such things from the environment which it supplies, and thereby doing what it can to counteract their influence in the ordinary social environment. By selecting the best for its exclusive use, it strives to reinforce the power of the best. As a society becomes more enlightened, it realizes that it is responsible not to transmit and conserve the whole of its existing achievements, but only such as to make for a better future society. The school is its chief agency for the accomplishment of this end."
(p. 24)

[From "Democracy and Education: An Introduction to the Philosophy of Education" by John Dewey
The MacMillan Company, New York 1922 (originally published in 1916) (complete text searchable of this 1922 version through Google Books at https://www.google.com/books/edition/Democracy_and_Education/jqROAAAAMAAJ?hl=en&gbpv=0)]

Note: The passage by Mr. Dewey suggests that enlightened societies should recognize their social responsibilities to identify, preserve, and transmit only those cultural "building blocks" which contribute to "making a better future society". And that "the school is its chief agency for the accomplishment of this end".

He was writing about education in the United States in the early 20th Century.

b) We now live in the most complex cultural landscapes ever created on Planet Earth

The world we live in now is profoundly different from what the world was like when Mr. Dewey wrote the above passage.

Widespread access to the search engines on the Internet; Wikipedia; YouTube; Social Media (Facebook, Twitter, etc.); professional networks, etc. on Ning Platforms; iPhones and iPads; television networks; cable networks; newspapers; and radios mean that however carefully schools attend to their social responsibilities, there are countless ways in which “unworthy features” of our complex world can counteract, rather than reinforce, important educational goals.

c) “Finally, the media do not merely reflect or reinforce culture, but in fact shape attitudes, values, behavior, preoccupations, and myths.”

“Popular programming reflects a level of acceptance and shared values among large numbers of people. People tend to watch programs that meet their approval. If they are truly offended by violent programs, they would not watch them. In that sense, media programming can be regarded as a text that reflects the attitudes, values, behaviors, preoccupations, and myths that define a culture.”

“At the same time, media programming reinforces cultural attitudes, values, behaviors, preoccupations, and myths. Media messages are communicated through the countless hours of media programming that repeat, directly or indirectly, the cultural script.”

“Finally, the media do not merely reflect or reinforce culture, but in fact shape attitudes, values, behavior, preoccupations, and myths.”

[From “International Communications: A Media Literacy Approach” by Art Silverblatt and Nikolai Zlobin M.E. Sharpe July, 2004 (content accessible at Google Books at <https://books.google.com/books?id=Ife9Kg5B2BwC&printsec=frontcover&dq=International+Communications:+A+Media+Literacy+Approach&hl=en&sa=X&ei=u-rwVlVlA4mQyQSq8oK4DA&ved=0CCcQ6AEwAA#v=onepage&q=media%20programming&f=false>) (see p. 66 and 68)]

d) ... *danger signs*... can be easily lost amidst a swirl of misinformation, other more trivial information, and the “siren song” of multiple entertainment venues.

Thus, even analysis supported by much credible evidence—(for example, that *there are many danger signs flashing now, involving significant threats to ecological stability and social cohesion*)—can be easily lost amidst a swirl of misinformation, other more trivial information, and the “siren song” of multiple entertainment venues. (And thus) *people who are not sufficiently informed about critical issues are everywhere, and they are investing their time, energy, and money--voting--all the time.*

B. Concerns about the Leanings of Human Aspirations

“If he, compact of jars, grows musical, we shall have shortly discord in the spheres.”

[from play “As You Like It” by William Shakespeare (Act 2, Scene 7) (complete searchable text at <http://shakespeare.mit.edu/asyoulikeit/full.html>)]

1) “The climate crisis has arrived and is accelerating faster than most scientists expected (figure 2, IPCC 2018). It is more severe than anticipated, threatening natural ecosystems and the fate of humanity (IPCC 2019).”

a) We have left the 10,000-year climate "safe zone" that gave rise to human civilization.

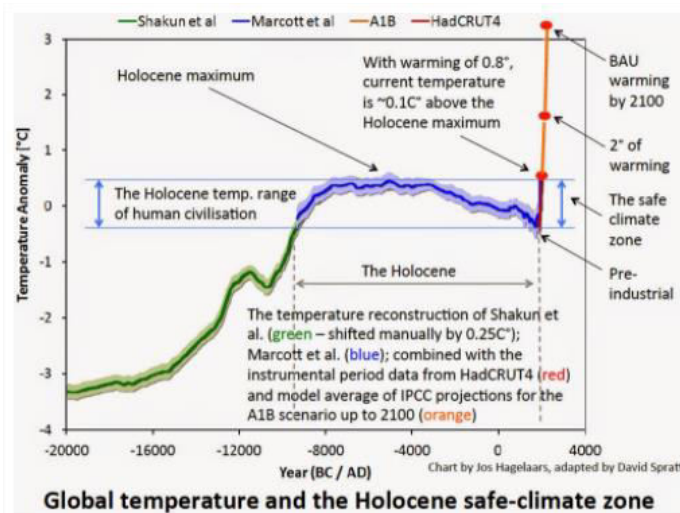


Figure 2: Past and future global temperature and the safe-climate zone

[From article “The real budgetary emergency and the myth of “burnable carbon” (David Spratt) (May 22, 2014) (at <http://www.climatecodered.org/2014/05/the-real-budgetary-emergency-burnable.html>) (Figure 2)]

b) “The report (“IPCC Special Report on Global Warming of 1.5°C”) finds that limiting global warming to 1.5°C would require ‘rapid and far-reaching’ transitions in land, energy, industry, buildings, transport, and cities.”

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“One of the key messages that comes out very strongly from this report is that we are already seeing the consequences of 1°C of global warming through more extreme weather, rising sea levels and diminishing Arctic sea ice, among other changes,’ said Panmao Zhai, Co-Chair of IPCC Working Group I.” (paragraph 6)

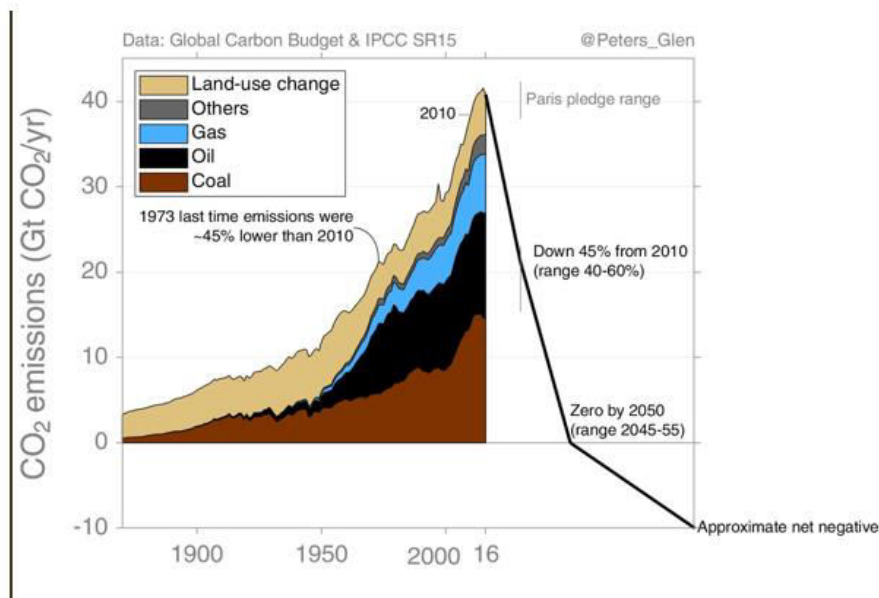
“The report finds that limiting global warming to 1.5°C would require “rapid and far-reaching” transitions in land, energy, industry, buildings, transport, and cities. Global net human-caused emissions of carbon dioxide (CO₂) would need to fall by about 45 percent from 2010 levels by 2030, reaching ‘net zero’ around 2050. This means that any remaining emissions would need to be balanced by removing CO₂ from the air.” (paragraph 10)

[From the Press Release for the “IPCC Special Report on Global Warming of 1.5°C” at the website of the Intergovernmental Panel for Climate Change (from webpage <https://www.ipcc.ch/2018/10/08/summary-for-policy-makers-of-ipcc-special-report-on-global-warming-of-1-5c-approved-by-governments/> and--with same information--in Press Release pdf file (at https://www.ipcc.ch/site/assets/uploads/2018/11/pr_181008_P48_spm_en.pdf)]

c) Graph illustrating the IPCC recommendation for what is necessary to limit global warming to 1.5°C

“According to [#SR15](#), pathways with limited overshoot of 1.5°C require global net CO₂ emissions to decline by ~45% from 2010 levels by 2030 (40–60% interquartile), reaching net zero around 2050 (2045–2055 interquartile), & go negative thereafter (my estimate).”

“This is not easy...”



[From a tweet by Glen Peters @Peters_Glen (October 12, 2018) on the Twitter Platform (at https://twitter.com/Peters_Glen/status/1050651292178075648) Note: from Glen Peters Twitter Profile: "Research Director at @CICERO_klima (Center for International Climate Research--Oslo, Norway) on past, current, & future trends in energy use & GHG emissions."]

d) "Especially worrisome are potential irreversible climate tipping points and nature's reinforcing feedbacks (atmospheric, marine, and terrestrial) that could lead to a catastrophic 'hothouse Earth,' well beyond the control of humans (Steffen et al. 2018)."

"The climate crisis has arrived and is accelerating faster than most scientists expected (figure 2, IPCC 2018). It is more severe than anticipated, threatening natural ecosystems and the fate of humanity (IPCC 2019). Especially worrisome are potential irreversible climate tipping points and nature's reinforcing feedbacks (atmospheric, marine, and terrestrial) that could lead to a catastrophic 'hothouse Earth,' well beyond the control of humans (Steffen et al. 2018). These climate chain reactions could cause significant disruptions to ecosystems, society, and economies, potentially making large areas of Earth uninhabitable."

[From article "World Scientists' Warning of a Climate Emergency" (with more than 11,000 scientist signatories from around the world) by William J. Ripple et al. (affiliated with the Alliance of World Scientists) (November 5, 2019) at the BioScience Journal website (affiliated with the American Institute of Biological Sciences and Oxford Academic Journals) (at <https://academic.oup.com/bioscience/article/70/1/8/5610806#165912528>) (paragraph 7)]

e) The Brainstorming Zero Carbon ASAP Project

"Fortunately, there are thousands of organizations and institutions around the world which can contribute essential guidance at this critical time. These are entities I refer to as positive tipping point organizations and institutions--as they are making significant contributions in their fields (especially Climate Mitigation and Sustainable Biodiversity, but also many other fields); they are well known in their fields for the integrity and reliability of their work--and *they are critical to gaining positive momentum at this auspicious moment in the history of life on Earth.*" [Note: I have listed 616 such organizations and institutions in 30 categories in Appendix 10 of my 157 page paper "[Brainstorming Zero Carbon ASAP Campaign](#)" (June, 2019)... and have also created a "[Sample List of 231 Positive Tipping Point Organizations and Institutions](#)"--both links also on www.cpcsi.org homepage.)]

"The Brainstorming Zero Carbon ASAP Project begins--

by asking such positive tipping point organizations and institutions for 5-10 page overviews on how to reduce Greenhouse Gas Emissions ASAP in their specific fields--and also--how work in their field can best

contribute to managing the unprecedented cultural transformation ahead (to limit Global Warming to 1.5°C, preserve Sustainable Biodiversity, and resolve many other critical challenges at the same time).”

[From 6 page [“Outreach Letter”](#) (sent to 170 positive tipping point organizations and institutions, and specifically to 35 higher education institutions; January-March, 2021) by Stefan Pasti, The Community Peacebuilding and Cultural Sustainability (CPCS) Initiative (www.cpcsi.org)]

2) Depleting the World’s Stock of Goodwill

a) ... the continued exploitation of flaws and weaknesses in human nature, fragile ecosystems, and already significantly depleted natural resources....

Unfortunately, there are many people in our communities who--regardless of the difficulties and urgencies associated with resolving multiple crises--choose to focus their attention on trying to make money by preying of people’s fears, manipulating people’s trust, and/or encouraging people to abandon hope in higher aspirations, and indulge in unhealthy, or immoral behavior. Such behavior is clearly counterproductive to the building of caring communities; it can be very dangerous for community morale; and it can become a crippling obstacle in times of crises.

Unfortunately, the kind of “economic growth” which is most often being referred to includes a vast array of “enterprises” which require the continued exploitation of flaws and weaknesses in human nature, fragile ecosystems, and already significantly depleted natural resources--and which are much of the reason why cultures of violence, greed, and corruption have become so common that most people believe they are inevitable.

b) *“Existing policies and market incentives... allow businesses to run up significant, largely unaccounted for, and unchecked social and environmental externalities.”*

*“Most economic development and growth strategies encouraged rapid accumulation of physical, financial and human capital, but at the expense of excessive depletion and degradation of natural capital, which includes the endowment of natural resources and ecosystems. By depleting the world’s stock of natural wealth--often irreversibly--this pattern of development and growth has had detrimental impacts on the wellbeing of current generations and presents tremendous risks and challenges for the future. The recent multiple crises are symptomatic of this pattern. Existing policies and market incentives have contributed to this problem of capital misallocation because *they allow businesses to run up significant, largely unaccounted for, and unchecked social and environmental externalities.*”*

[From “Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication” United Nations Environment Programme, 2011; (in Introduction, see section “An Era of Capital Misallocation”--insufficient numbering, see the first and second pages of the introduction) (at https://docs.google.com/gview?url=http://sustainabledevelopment.un.org/content/documents/126GER_synthesis_en.pdf&embedded=true)]

c) One of the most persistent ironies in life....

If residents in communities around the world gave careful consideration to their investments of time, energy, and money in the everyday circumstances of their life for one month--and then categorized each investment according to who or what they were placing their faith in--the amount of investment which could be described as faith in the current economic development model would be of such a profound magnitude that many of us might have difficulties believing it.

One of the most persistent ironies in life is that with so many opportunities to provide real assistance to fellow human beings, there are still many, many people in this world who cannot find a way to earn a living providing such assistance.

d) “Entirely new approaches are required to redirect society towards goals of equilibrium rather than growth.”

“We are unanimously convinced that rapid, radical redressment of the present unbalanced and dangerously deteriorating world situation is the primary task facing humanity.”

“Our present situation is so complex and is so much a reflection of man’s multiple activities, however, that no combination of purely technical, economic, or legal measures and devices can bring about substantial improvement. Entirely new approaches are required to redirect society towards goals of equilibrium rather than growth. Such a reorganization will involve a supreme effort of understanding, imagination, and political and moral resolve. We believe that the effort is feasible and, we hope that this publication will help to mobilize forces to make it possible.” (p. 193)

[From Commentary at the end of the book “The Limits to Growth” (1972) by the Executive Committee of The Club of Rome [From the book “The Limits to Growth” at Internet Archives (at <https://archive.org/details/limitstogrowthr00mead>)]

3) Human morality is not a constant

Here are three examples of negative outcomes which could be noticeably remedied by reversing the marginalization of such treasured wisdom: [Footnotes at the end of this section]

a) “The satisfaction of one’s physical needs must come at a certain point to a dead stop before it degenerates into physical decadence.”^a

b) “This staggering level of inequality...”

“This time last year, I outlined the results of the Global Wealth report published by Credit Suisse Bank (see my post, <https://thenextrecession.wordpress.com/2013/10/10/global-wealth-inequality-10-own-86-1-own-41-half-own-just-1/>). Compiled by Tony Shorrocks and Jim Davies, formerly at the UN, the report last year showed that the top 1% owned 41% of all the personal wealth in the world; the top 10% owned 86% and the bottom 50% of owned less than 1% of all the wealth. This staggering level of inequality certainly attracted interest and my post on this was the most popularly viewed one on my blog ever. Now Credit Suisse have published its 2014 report (cs_global_wealth_report_2014_vF) compiled by the same academics. According to the latest calculations, global wealth inequality has got even worse. Taken together, the bottom half of the global population still own less than 1% of total wealth. And the richest 10% still own more or less the same, now 87%. But the top 1% now own 48% of all global personal wealth! If you like a soundbite: the top 1% of adults in the world own nearly half of all personal wealth. There seems to be no stopping the growing inequality of wealth in the world.”^b

c) “The global drugs trade and the global arms trade.... no solutions seem to be in sight for these problems.”

“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.”^c

d) ... these critical challenge assessments and solution guides do not give serious attention to variations in human morality as a significant factor affecting the nature of the challenges of our times (*even now, when we are in uncharted territory, in the most complex cultural landscapes ever created*).

It should be clear to most readers that the virtuous conduct (the discipline, restraint, wisdom, understanding, compassion, forgiveness, etc.) necessary--to transform the above examples (including all the real-life implications those examples suggest) into examples of the treasured wisdom of our human heritage being more fully appreciated, and applied in the everyday circumstances of community life--would inspire "waves" of additional goodwill.

And yet... if readers carefully explore the following critical challenge assessments and solution guides (which are offered here as representative and well-known examples from the past 50 years)--

"The Limits to Growth" report (1972; updated 2004) (and "2052 - A Global Forecast for the Next Forty Years", published in 2012 by one of the original authors)

"Gaia: An Atlas of Planetary Management" (1984; updated 2005)

Worldwatch Institute--annual "State of the World" Reports, and "Worldwatch Reports" (formerly "Worldwatch Papers")

UN-Habitat (United Nations Human Settlement Programme)--"State of the World's Cities" Reports, and (formerly annual) "Global Reports on Human Settlements"

UNEP (United Nations Environment Programme)--annual "Human Development" Reports

United Nations--Millennium Development Goals (MDGs) Progress Reports, and Sustainable Development Goals (SDGs) Updates

IPCC (Intergovernmental Panel on Climate Change)--ongoing reports

International Monetary Fund--bi-annual "World Economic Outlook" Reports

World Bank--"World Development Reports"

World Economic Forum--annual "Outlook on the Global Agenda" Reports

International Energy Agency--annual "World Energy Outlook" Reports

Earth Policy Institute--including "Plan B 4.0: Mobilizing to Save Civilization", "World on the Edge: How to Prevent Environmental and Economic Collapse", "Full Planet, Empty Plates: The New Geopolitics of Food Scarcity"

"Pathways to Deep Decarbonization" [Published by Sustainable Development Solutions Network (SDSN) and Institute for Sustainable Development and International Relations (IDDRI), September 2014 (and presented at the United Nations Climate Summit on September 23, 2014)]

--they will find that these critical challenge assessments and solution guides do not give serious attention to variations in human morality as a significant factor affecting the nature of the challenges of our times--*even now, when we are in uncharted territory, in the most complex cultural landscapes ever created*.

Special Note:

This writer believes that human morality is not a constant--it is not something which is the same throughout the centuries of human existence; and thus it is something which can become degraded or raised up, depending on the leanings of human aspirations.

Footnotes

a. From article "Gandhi's Swadeshi--The Economics of Permanence" by Satish Kumar (originally a chapter in "The Case Against the Global Economy - and for a turn toward the local" edited by Jerry Mander and Edward Goldsmith) (accessible in booklet "The 15th Annual Gandhi Peace Festival" ("Towards a Culture of Nonviolence, Peace, and Justice; 2007 Theme: Building Sustainable Communities") (at <https://www.humanities.mcmaster.ca/gandhi/festival/booklets/gandhi-booklet-2007.pdf>) (see p. 13, paragraph 3) [Note: I have provided a longer excerpt from this article by Satish Kumar on p. 6-7 above (in this paper)]

b. From article "Global wealth: 1% own 48%; 10% own 87% and bottom 50% own less than 1%" by Michael Roberts ("worked in the City of London as an economist for over 40 years" <https://thenextrecession.wordpress.com/about-2/>) (dated October 14, 2014) (Article at <https://thenextrecession.wordpress.com/2014/10/15/global-wealth-1-own-48-10-own-87-and-bottom-50-own-less-than-1/>, see paragraphs 1 and 22)

c. From the "World Report on Violence and Health" (2002); World Health Organization (see p. 254 in https://apps.who.int/iris/bitstream/handle/10665/42495/9241545615_eng.pdf;jsessionid=29C0E18A3AE028D1DD67E51931B692B5?sequence=1)

4) ... this is the very treasured wisdom which is now marginalized in our fast-paced modern world....

a) ... we cannot afford to exclude from our "tool box" the time-tested sources which have helped people learn wisdom and compassion over many centuries....

At this critical time, we cannot afford to exclude from our "tool box" the time-tested sources which have helped people learn wisdom and compassion over many centuries... it is now essential for us to access the storehouses of wisdom and compassion which have accumulated over the many centuries of human experience, and which have been confirmed again and again as essential to individual well-being and social harmony by the saints, sages, spiritual leaders, and sincere practitioners of all religious, spiritual, and moral traditions. And yet... this is the very treasured wisdom which is now marginalized in our fast-paced modern world... in the most complex cultural landscapes ever created.

Unfortunately, much of the real treasured wisdom of religious, spiritual, and moral traditions now seems to be hidden--and thus in need of being re-discovered. These "hidden" resources include teachings which inspire and encourage people to:

- i) sacrifice personal desires for the greater good of the whole
- ii) find contentment and quality of life while consuming less material goods and ecological services
- iii) use resources carefully, so that there is surplus available for emergency assistance
- iv) 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

b) "...religion was not particularly relevant for the future as it was envisioned at most universities."

"For most of the 20th Century, and especially since the Second World War, higher education has been largely a secular enterprise. The goal of a college or university education has been to provide students with scholarly ways of understanding both themselves and the world around them that required little or no appeal to God, religion, or the sacred. The underlying assumption seemed to be that as research and rational reflection explained more and more of the world, religion would become an increasingly unnecessary part of human life. Higher education prepares students for the future, and religion was not particularly relevant for the future as it was envisioned at most universities."

5) Planetary Life Support Systems are unravelling

a) World Population Milestones

"1 billion in 1804
2 billion in 1927 (123 years later)
3 billion in 1960 (33 years later)
4 billion in 1974 (14 years later)
5 billion in 1987 (13 years later)
6 billion in 1999 (12 years later)
7 billion in 2011 (12 years later)"

[From the "World Population Milestones" webpage at the website for "Information Please" (at <https://www.infoplease.com/world/population/world-population-milestones>) (Source: United Nations Population Division)]

As of April 7, 2021, the world population was 7,857,413,000.

[From the webpage “Current World Population” at the worldometers website (at <https://www.worldometers.info/world-population/>)]

b) “...*nature is unravelling and that our planet is flashing red warning signs of systems failure.*”

“The Living Planet Report 2020 underlines how humanity’s increasing destruction of nature is having catastrophic impacts not only on wildlife populations but also on human health and all aspects of our lives,’ said Marco Lambertini, Director General, WWF International.”

“We can’t ignore the evidence--these serious declines in wildlife species populations are an indicator that *nature is unravelling and that our planet is flashing red warning signs of systems failure.* From the fish in our oceans and rivers to bees which play a crucial role in our agricultural production, the decline of wildlife affects directly nutrition, food security and the livelihoods of billions of people.”

[From article “WWF’s Living Planet Report reveals two-thirds decline in wildlife populations on average since 1970” (World Wildlife Federation) (September 9, 2020) at the World Wildlife Federation website (at https://wwf.panda.org/wwf_news/press_releases/?793831/WWF-LPR--reveals-two-thirds-decline-in-wildlife-populations-on-average-since-1970) (paragraphs 3 and 4)]

c) “The health of ecosystems on which we and all other species depend is deteriorating more rapidly than ever.”

“The overwhelming evidence of the IPBES Global Assessment, from a wide range of different fields of knowledge, presents an ominous picture,’ said IPBES Chair, Sir Robert Watson. ‘The health of ecosystems on which we and all other species depend is deteriorating more rapidly than ever. We are eroding the very foundations of our economies, livelihoods, food security, health and quality of life worldwide.’”

[From the webpage “Media Release: Nature’s Dangerous Decline ‘Unprecedented’; Species Extinction Rates ‘Accelerating’” (May, 2019) at the website for IPBES (at <https://ipbes.net/news/Media-Release-Global-Assessment>) (paragraph 2)]

d) Food Loss and Food Waste

From Key Findings Section (see below reference)

“● Roughly one-third of the food produced in the world for human consumption every year - approximately 1.3 billion tonnes - gets lost or wasted.

- Industrialized and developing countries dissipate roughly the same quantities of food - respectively 670 and 630 million tonnes.
- In developing countries, 40 per cent of losses occur at post-harvest and processing levels while in industrialized countries more than 40 per cent of losses happen at retail and consumer levels.
- Food loss and waste also amount to a major squandering of resources, including water, land, energy, labor, and capital, and needlessly produce greenhouse gas emissions, contributing to global warming and climate change.”

[From the “Worldwide Food Waste” webpage at the Think.Eat.Save website (at <https://www.unep.org/thinkeatsave/get-informed/worldwide-food-waste>) (bullets 1, 3, 10, and 12)

[Note: “Think.Eat.Save of the Save Food Initiative, is a partnership between UNEP and FAO contributing to the Sustainable Food Systems Programme of the 10 Year Framework of Programmes on Sustainable Consumption and Production (10YFP), also known as the One Planet Network.]

“The initiative is in support of the UN Secretary-General’s Zero Hunger Challenge, which seeks to add its authority and voice to these efforts in order to galvanize widespread global, regional and national actions, catalyze more sectors of society to be aware and to act, including through exchange of inspiring ideas and projects between those players already involved and new ones that are likely to come on board.

“We offer the Think.Eat.Save website as a portal to showcase these ideas to provide a one-stop-shop for news and resources, and to launch our call for everyone to take action on this global concern.”]

[From the “About” webpage, at the Think.Eat.Save website, in affiliation with the United Nations Environment Programme and others (at <https://www.unep.org/thinkeatsave/about-thinkeatsave>)]

[Also

<https://stopwastingfoodmovement.org/food-waste/food-waste-facts/>

<http://www.fao.org/platform-food-loss-waste/flw-data/en/> (Food Loss and Waste Database)

<http://www.fao.org/food-loss-and-food-waste/flw-data>) (definitions: food loss and food waste)]

6) Motor Vehicles

In Federal Aid Highway Act of 1956 (USA)

("... federal government would pay for 90 percent of the cost of construction of Interstate Highways.")
[footnote below in c)]

a) "In 1900 only 4,192 passenger cars (and no trucks or buses) were built in the United States."

[From the webpage "Number of Cars" at the website of The Physics Factbook (at <https://hypertextbook.com/facts/2001/MarinaStasenko.shtml>) (first entry, which identifies source reference as "The Automobile." New Book of Popular Science 6th ed. Republic of China: Grolier, 1978)]

b) "The automotive industry caused a massive shift in the industrial revolution...."

"The automotive industry caused a massive shift in the industrial revolution because it accelerated growth by a rate never before seen in the U.S. economy. The combined efforts of innovation and industrialization allowed the automotive industry to take off during this period and it proved to be the backbone of United States manufacturing during the 20th century."

[From the Wikipedia webpage "Automotive industry in the United States" (at https://en.wikipedia.org/wiki/Automotive_industry_in_the_United_States) (in section "Development History", in the subsection "Production", paragraph 2)]

c) "Federal Aid Highway Act of 1956... the federal government would pay for 90 percent of the cost of construction of Interstate Highways."

"The U.S. federal government first funded roadways through the Federal Aid Road Act of 1916, and began an effort to construct a national road grid with the passage of the Federal Aid Highway Act of 1921."

"In June 1956, Eisenhower signed the Federal Aid Highway Act of 1956 into law. Under the act, the federal government would pay for 90 percent of the cost of construction of Interstate Highways."

[From the Wikipedia webpage "Interstate Highway System" (at https://en.wikipedia.org/wiki/Interstate_Highway_System) (paragraph 2; and in section "Federal Aid Highway Act of 1956", paragraph 2)]

d) “Navigant Consulting forecasts that the global stock of light-duty motor vehicles will reach 2 billion units in 2035.”

“The world vehicle population passed the 500 million-unit mark in 1986, from 250 million motor vehicles in 1970. Between 1950 and 1970, the vehicle population doubled roughly every 10 years.”

“The US publisher Ward's estimates that as of 2010, there were 1.015 billion motor vehicles in use in the world.”

“Navigant Consulting forecasts that the global stock of light-duty motor vehicles will reach 2 billion units in 2035.”

[From the Wikipedia webpage “Motor Vehicles” (at https://en.wikipedia.org/wiki/Motor_vehicle) (in section “Ownership Trends”, paragraph 1)]

e) “Transport emissions... also expected to grow at a faster rate than that from any other sector.”

“All that movement comes at a cost--not just the sticker price of a new car, train ticket or shipping bill, but also an environmental cost. Transport, in fact, eats up a significant portion of our carbon budget.”

“Transport emissions--which primarily involve road, rail, air and marine transportation--accounted for over 24% of global CO2 emissions in 2016. They're also expected to grow at a faster rate than that from any other sector, posing a major challenge to efforts to reduce emissions in line with the Paris Agreement and other global goals.”

“In terms of transport modes, 72% of global transport emissions come from road vehicles, which accounted for 80% of the rise in emissions from 1970-2010.”

[From article “Everything You Need to Know About the Fastest-Growing Source of Global Emissions: Transport” by Shiyang Wang and Mengpin Ge (October 16, 2019) at the website of the World Resources Institute (at <https://www.wri.org/blog/2019/10/everything-you-need-know-about-fastest-growing-source-global-emissions-transport#:~:text=Transport%20emissions%20%E2%80%94%20which%20primarily%20involve,global%20CO2%20emissions%20in%202016.&text=Decarbonization%20of%20the%20transport%20sector,more%20affordable%20future%20for%20everyone.>) (paragraphs 1-3, and in the section “Where do transport emissions come from?”, paragraph 1)]

7) Large Cities

a) “Consumption-Based GHG Emissions of C40 Cities” Report (March, 2018)

“This report presents the methodology and results of a study investigating the consumption-based greenhouse gas emissions (GHG) from 79 cities, carried out by the C40 Cities Climate Leadership Group (C40) in partnership with the University of Leeds (United Kingdom), the University of New South Wales (Australia), and Arup.” (p. 2)

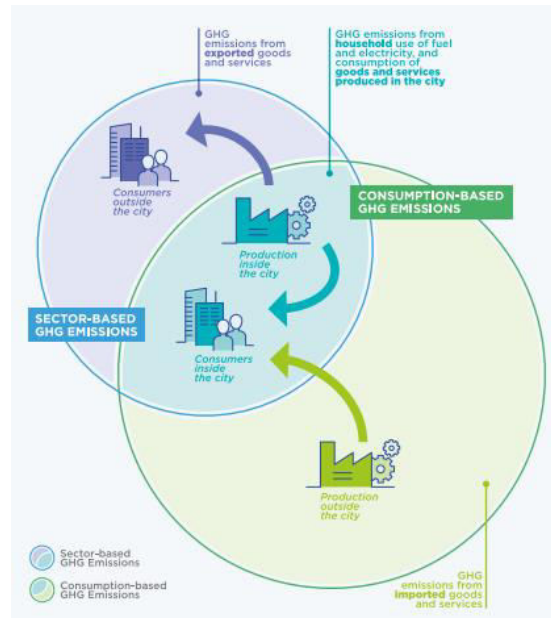
“To support evidence-based climate action planning, many cities have developed sector-based GHG inventories using standards such as the Global Protocol for Community-Scale Greenhouse Gas Emission Inventories (GPC).” (p. 3, paragraph 1)

“These focus primarily on GHG emissions from energy use within the city boundary, through direct combustion (scope 1) or the consumption of grid-supplied electricity, heating and/or cooling (scope 2), as well as GHG emissions from the treatment of waste. The vitality of cities, however, also gives rise to the production of significant quantities of GHG emissions outside their boundaries (scope 3).” (p. 3, paragraph 2)

“The consumption-based approach captures direct and lifecycle GHG emissions of goods and services (including those from raw materials, manufacture, distribution, retail and disposal) and allocates GHG emissions to the final consumers of those goods and services, rather than to the original producers of those GHG emissions.” (p. 4, paragraph 2)

“Total consumption-based emissions of the 79 C40 cities included in this study are 3.5 GtCO₂e (for the reference year 2011). This represents a 60% increase on the 2.2 GtCO₂e emissions estimated for the same cities using the GPC, and reflects the difference in GHG emissions embodied in imported and exported goods and services.... This shows that consumption activities by residents of C40 cities has a significant impact on the generation of GHG emissions beyond their boundaries.” (p. 8, from paragraphs 1 and 2)

Do We Have Moral Compasses We Can Rely On?



(p. 4, figure 2)

“In simple terms, therefore, a city consumption-based GHG inventory can be defined as the emissions arising within a city’s boundaries, minus those emissions associated with the production of goods and services exported to meet demand outside the city, plus emissions arising in supply chains for goods and services produced outside the city but imported for consumption by its residents.” (p. 4, sidebar to Figure 2)

“Total consumption-based emissions of the 79 C40 cities included in this study are 3.5 GtCO₂e (for the reference year 2011). This represents a 60% increase on the 2.2 GtCO₂e emissions estimated for the same cities using the GPC, and reflects the difference in GHG emissions embodied in imported and exported goods and services.... This shows that consumption activities by residents of C40 cities has a significant impact on the generation of GHG emissions beyond their boundaries.”

(p. 8, from paragraphs 1 and 2)

“80% of the cities (63 out of 79) have larger consumption-based GHG emissions than sector-based GHG emissions. For 16 cities--mostly in South and West Asia, Southeast Asia and Africa--the reverse is true, with sector-based GHG emissions larger than consumption-based GHG emissions. These two groups are often referred to as “consumer” cities and “producer” cities respectively. Over half of the cities have

consumption-based GHG emissions at least twice the size of their sector-based GHG emissions.

16 cities (out of the 79), mostly in Europe and North America, have consumption-based GHG emissions at least three times the size of their sector-based GHG emissions." (p. 9, paragraph 1)

[From the report "Consumption-Based GHG Emissions of C40 Cities" by C40 Cities (March, 2018) which can be accessed through either the "Consumption-Based GHG Emissions" subsection of the "Reducing GHG Emissions" subsection of the Climate Action Planning Resource Centre (at <https://resourcecentre.c40.org/>)---- or by going directly to the pdf file (at <https://www.c40.org/researches/consumption-based-emissions>)]

b) "Rich countries owe poor a huge environmental debt"

"The environmental damage caused to developing nations by the world's richest countries amounts to more than the entire third world debt of \$1.8 trillion, according to the first systematic global analysis of the ecological damage imposed by rich countries."

"The study found that there are huge disparities in the ecological footprint inflicted by rich and poor countries on the rest of the world because of differences in consumption. The authors say that the west's high living standards are maintained in part through the *huge unrecognised ecological debts* it has built up with developing countries."

"At least to some extent, the rich nations have developed at the expense of the poor and, in effect, there is a debt to the poor,' said Prof Richard Norgaard, an ecological economist at the University of California, Berkeley, who led the study. 'That, perhaps, is one reason that they are poor. You don't see it until you do the kind of accounting that we do here.'"

"Using data from the World Bank and the UN's Millennium Ecosystem Assessment, the researchers examined so-called 'environmental externalities' or costs that are not included in the prices paid for goods but which cover ecological damage linked to their consumption. They focused on six areas: greenhouse gas emissions, ozone layer depletion, agriculture, deforestation, overfishing and converting mangrove swamps into shrimp farms."

"Greenhouse emissions from low-income countries have imposed \$740 billion of damage on rich countries, while in return rich countries have imposed \$2.3 trillion of damage. This damage includes, for example, flooding from more severe storms as a result of climate change."

"We know already that climate change is a huge injustice inflicted on the poor,' said Dr. Neil Adger at the Tyndall Centre for Climate Change Research in Norwich, who was not involved in the research, 'This paper is actually the first systematic quantification to produce a map of that ecological debt. Not only for climate change but also for these other areas.'"

[From article “Rich countries owe poor a huge environmental debt” by James Randerson (January 20, 2008) at the Guardian website (at <https://www.theguardian.com/science/2008/jan/21/environmental.debt1>) (paragraphs 1-4, 7, and 10)]

c) “Twentieth century cities and industrial regions are dependent for survival and growth on a vast and increasingly global hinterland of ecologically productive landscapes.”

“... 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.”

[from section “Appropriating Carrying Capacity and Ecological Footprints” (p. 204, paragraph 4)]

[From article “Revisiting Carrying Capacity: Area-Based Indicators of Sustainability” by William E. Rees--which was published in the January 1996 issue of “Population and Environment” [17(3):195-215]] [from downloaded file via ResearchGate website (at

https://www.researchgate.net/publication/226184045_Revisiting_Carrying_Capacity_Area-Based_Indicators_of_Sustainability)]

d) “Food sovereignty is the right of peoples to... define their own food and agriculture systems.”

“At the Forum for Food Sovereignty in Sélingué, Mali, 27 February 2007, about 500 delegates from more than 80 countries adopted the "Declaration of Nyéléni", which says in part:

‘Food sovereignty is the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems. It puts those who produce, distribute and consume food at the heart of food systems and policies rather than the demands of markets and corporations. It defends the interests and inclusion of the next generation. It offers a strategy to resist and dismantle the current corporate trade and food regime, and directions for food, farming, pastoral and fisheries systems determined by local producers. Food sovereignty prioritises local and national economies and markets and empowers peasant and family farmer-driven agriculture, artisanal fishing, pastoralist-led grazing, and food production, distribution and consumption based on environmental, social and economic sustainability.’”

[From the Wikipedia webpage for “Food Sovereignty”, at https://en.wikipedia.org/wiki/Food_sovereignty (see section “History”, and then subsection “Global Gatherings”)]

e) Maine Town Passes Landmark Local Food Ordinance

i) “On Saturday, March 5 (2011), residents of a small coastal town in Maine voted unanimously to adopt the Local Food and Self-Governance Ordinance, setting a precedent for other towns looking to preserve small-scale farming and food processing.”

From press release “Maine Town Passes Landmark Local Food Ordinance” at the website “Food For Maine’s Future” (paragraph 1)(see <http://savingseeds.wordpress.com/2011/03/07/maine-town-passes-landmark-local-food-ordinance/>)

“For Immediate Release
March 7, 2011

Maine Town Passes Landmark Local Food Ordinance
Sedgwick becomes first town in Maine to adopt protections

Sedgwick, Maine – “On Saturday, March 5, residents of a small coastal town in Maine voted unanimously to adopt the Local Food and Self-Governance Ordinance, setting a precedent for other towns looking to preserve small-scale farming and food processing. Sedgwick, located on the Blue Hill Peninsula in Western Hancock County, became the first town in Maine, and perhaps the nation, to exempt direct farm sales from state and federal licensing and inspection. The ordinance also exempts foods made in the home kitchen, similar to the Michigan Cottage Food Law passed last year, but without caps on gross sales or restrictions on types of exempt foods.”

(below from text of ordinance)

[From Template for Local Food Ordinances in Maine (at <http://savingseeds.files.wordpress.com/2011/03/localfoodlocalrules-ordinance-template.pdf>)]

“We recognize that family farms, sustainable agricultural practices, and food processing by individuals, families and non-corporate entities offers stability to our rural way of life by enhancing the economic, environmental and social wealth of our community. As such, our right to a local food system requires us to assert our inherent right to self-government.”

ii) “We the People of the Town of (name of town), (name of county) County, Maine have the right to produce, process, sell, purchase and consume local foods thus promoting self-reliance, the preservation of family farms, and local food traditions.”

Section 3. Preamble and Purpose. (excerpt)

“We the People of the Town of (name of town), (name of county) County, Maine have the right to produce, process, sell, purchase and consume local foods thus promoting self-reliance, the preservation of family farms, and local food traditions. We recognize that family farms, sustainable agricultural practices, and food processing by individuals, families and non-corporate entities offers stability to our rural way of life by enhancing the economic, environmental and social wealth of our community. As such, our right to a local food system requires us to assert our inherent right to self-government. We recognize the authority to protect that right as belonging to the Town of (name of town) .

“We have faith in our citizens’ ability to educate themselves and make informed decisions. We hold that federal and state regulations impede local food production and constitute a usurpation of our citizens’ right to foods of their choice. We support food that fundamentally respects human dignity and health, nourishes individuals and the community, and sustains producers, processors and the environment. We are therefore duty bound under the Constitution of the State of Maine to protect and promote unimpeded access to local foods.”

f) Article: “Why cement emissions matter for climate change” (Carbon Brief) (September, 2018)

“If the cement industry were a country, it would be the third largest emitter in the world.”

“In 2015, it generated around 2.8bn tonnes of CO₂, equivalent to 8% of the global total--a greater share than any country other than China or the US.”

“Cement use is set to rise as global urbanisation and economic development increases demand for new buildings and infrastructure. Along with other parts of the global economy, the cement industry will need to dramatically cut its emissions to meet the Paris Agreement’s temperature goals. However, only limited progress has been made so far.”

“The IEA and the industry-led Cement Sustainability Initiative (CSI) recently released a new low-carbon roadmap, showing how it considers emissions can be cut in line with a ‘2C’ scenario and a ‘below 2C’ scenario. The roadmap assumes cement demand will increase 12-23% by 2050.”

[From article “Q&A: Why cement emissions matter for climate change” by Jocelyn Timperly (September 13, 2018) at the website Carbon Brief (at <https://www.carbonbrief.org/qa-why-cement-emissions-matter-for-climate-change>) (paragraphs 1-3, and in the section “How far can cement emissions be reduced?”, paragraph 1)]

Do We Have Moral Compasses We Can Rely On?

g) 2021 Report Card for America's Infrastructure (GPA = C-)



[From the "Executive Summary" of the "2021 Report Card for America's Infrastructure" Report by the American Society of Civil Engineers (at <https://infrastructurereportcard.org/wp-content/uploads/2020/12/2021-IRC-Executive-Summary.pdf>) (p. 5)]

h) “In poorer countries, 98% of all children under five are exposed to PM2.5 above WHO guidelines.”

“90% of world's children are breathing toxic air, WHO study finds: Report says air pollution is having a devastating impact on children worldwide, storing up a public health time bomb.”

“... and 93% (of children worldwide) are exposed to one of the most damaging pollutants--PM2.5. In poorer countries, 98% of all children under five are exposed to PM2.5 above WHO guidelines.”

[Source: “90% of world's children are breathing toxic air, WHO study finds” by Matthew Taylor in Guardian 29 Oct 2018 (at <https://www.theguardian.com/environment/2018/oct/29/air-pollution-worlds-children-breathing-toxic-air-who-study-finds>)]

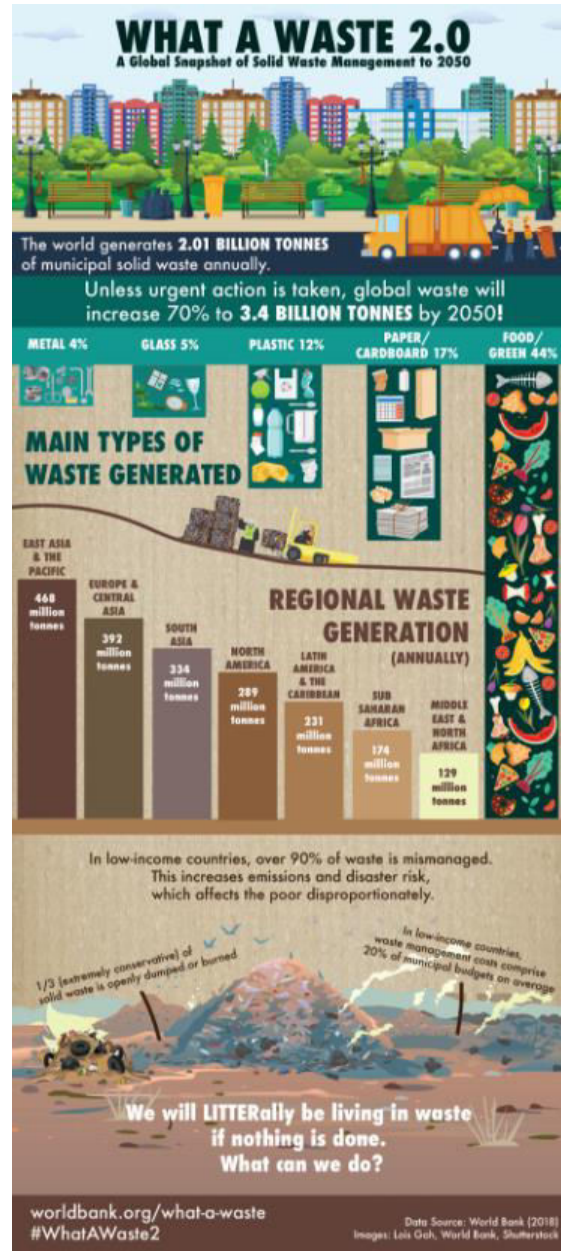
8) Hazardous and Toxic Waste

a) “There are an estimated 35 million tons of hazardous materials managed annually in the United States.”

“There are an estimated 35 million tons of hazardous materials managed annually in the United States. In general, there is adequate capacity for the treatment and disposal of these materials through the year 2044. However, progress toward mitigating legacy sites where hazardous waste was produced and improperly disposed of has stalled. There are approximately 1,300 Superfund sites where cleanup activities are either incomplete or not yet begun, roughly the same number as four years ago. Meanwhile, the Superfund budget has remained essentially flat at around \$1.1 billion over the last 10 years.”

[From the “Hazardous Waste” webpage at the website of the 2021 Report Card for America’s Infrastructure (by The American Society of Civil Engineers--ASCE) (at <https://infrastructurereportcard.org/cat-item/hazardous-waste/>) (paragraph 1)]

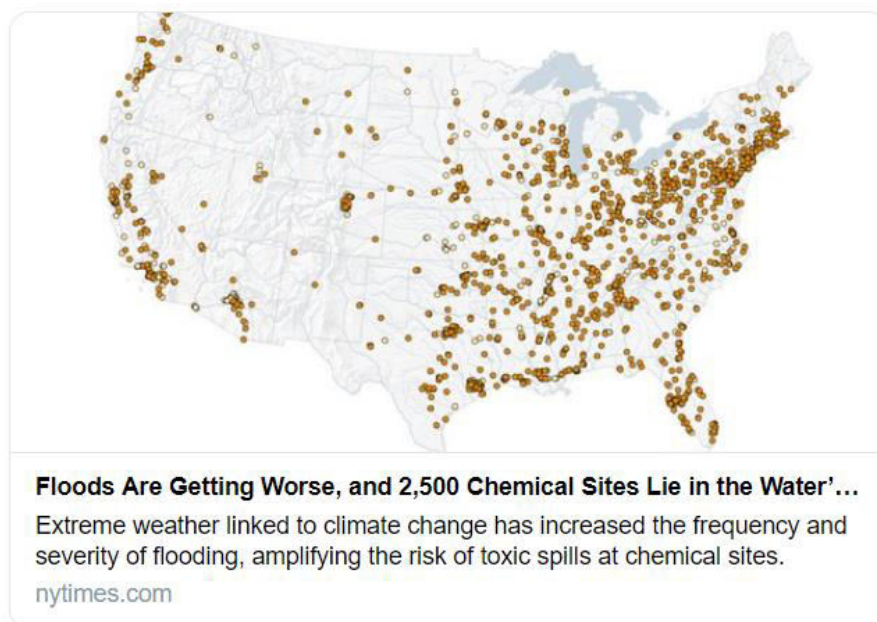
b) “In low-income countries, over 90% of solid waste is mismanaged. This increases emissions and disaster risk, which affects the poor disproportionately.”



[From the “What a Waste 2.0” webpage at the website for the World Bank (at <https://www.worldbank.org/en/news/infographic/2018/09/20/what-a-waste-20-a-global-snapshot-of-solid-waste-management-to-2050?cid=SURR TT WBGCitiesEN D EXT>) (infographic, with quoted text embedded in bottom third)]

[Also: Overview booklet of 2018 report “What a Waste 2.0: A Global Snapshot of Solid Waste Management to 2050” (38 pages) (at <https://openknowledge.worldbank.org/bitstream/handle/10986/30317/211329ov.pdf?sequence=11&isAllowed=y>)]

c) “Floods Are Getting Worse, and 2,500 Chemical Sites Lie in the Water’s Path”



“As flood danger grows--the consequence of a warming climate--the risk is that there will be more toxic spills like the one that struck Baytown, Tex., where Hurricane Harvey swamped a chemicals plant, releasing lye. Or like the ones at a Florida fertilizer plant that leaked phosphoric acid and an Ohio refinery that released benzene.”

[From article “Floods Are Getting Worse, and 2,500 Chemical Sites Lie in the Water’s Path” by Hiroko Tabuchi, Nadja Popovich, Blacki Migliozi and Andrew W. Lehren (February 6, 2018) in the New York Times (at <https://www.nytimes.com/interactive/2018/02/06/climate/flood-toxic-chemicals.html>) (paragraph 1) (free subscription required)]

[Also: “Florida’s Crisis Highlights a Nationwide Risk From Toxic Ponds” by Hiroko Tabuchi (April 6, 2021) at the website of the New York Times (at https://www.nytimes.com/2021/04/06/climate/florida-ponds-toxic-waste.html?auth=login-email&login=email&utm_medium=twitter&utm_source=dlvr.it) (free subscription required)]

d) “We were able to get all the way down to this one highly toxic chemical--something that kills large fish quickly and we think is probably found on every single busy road in the world.”

“When officials in Seattle spent millions of dollars restoring the creeks along Puget Sound--tending to the vegetation, making the stream beds less muddy, building better homes for fish--they were thrilled to see coho salmon reappear.”

“But when it rained, more than half, sometimes all, of the coho in a creek would suffer a sudden death.”

“These mysterious die-offs--an alarming [phenomenon](#) that has been reported from Northern California to British Columbia--have stumped biologists and toxicologists for decades. Numerous tests ruled out pesticides, disease and other possible causes, such as hot temperatures and low dissolved oxygen.

“Now, after 20 years of investigation, researchers in Washington state, San Francisco and Los Angeles say they have found the culprit: a very poisonous yet little-known chemical related to a preservative used in car tires.”

“The chemical is just one of a vast number of contaminants that washes off roads [whenever it rains](#). This giant soup of pollutants, which includes [trillions of microplastics](#), rushes down drains and into creeks and ultimately into the sea.”

“‘We pretty much figured out that anywhere there’s a road and people are driving their car, little bits of tire end up coming off your tire and end up in the stormwater that flows off that road,’ said Ed Kolodziej, an environmental engineer and chemist at the University of Washington (Tacoma/Seattle), whose lab led [a study](#) that was published Thursday in the journal Science. ‘We were able to get all the way down to this one highly toxic chemical--something that kills large fish quickly and we think is probably found on every single busy road in the world.’”

[From article “Scientists solve mystery of mass coho salmon deaths. The killer? A chemical from car tires” by Rosanna Xia (December, 3, 2020) at the website of the Los Angeles Times (at <https://www.latimes.com/california/story/2020-12-03/coho-salmon-tire-chemical>) (paragraphs 1-6)]

e) “Some 827,000 people in low- and middle-income countries die as a result of inadequate water, sanitation, and hygiene each year....”

“Some 827,000 people in low- and middle-income countries die as a result of inadequate water, sanitation, and hygiene each year, representing 60% of total diarrhoeal deaths. Poor sanitation is believed to be the main cause in some 432,000 of these deaths.”

“Diarrhoea remains a major killer but is largely preventable. Better water, sanitation, and hygiene could prevent the deaths of 297 000 children aged under 5 years each year.”

[From the “Sanitation” webpage at the website of the World Health Organization (at <https://www.who.int/news-room/fact-sheets/detail/sanitation>) (in Section “Sanitation and Health”, paragraphs 1 and 2)]

9) “This is not the life of simplicity but the life of multiplicity that the wise men warn us of. It leads not to unification but to fragmentation. It does not bring grace; it destroys the soul.”

[From the book “Gift from the Sea” by Anne Morrow Lindbergh (1955)]

“I mean to live a simple life... but I do not. I find that my frame of life does not foster simplicity. My husband and five children must make their way in the world. The life I have chosen as wife and mother entrains a whole caravan of complications. It involves a house in the suburbs and either household drudgery or household help which wavers between scarcity and non-existence for most of us. It involves food and shelter, meals, planning, marketing, bills, and making the ends meet in a thousand ways. It involves not only the butcher, the baker, the candlestick maker but countless other experts to keep my modern house with its modern “simplifications” (electricity, plumbing, refrigerator, gas-stove, oil-burner, dish-washer, radios, car, and numerous other labor saving devices) functioning properly. It involves health, doctors, dentists, appointments, medicine, cod-liver oil, vitamins, trips to the drugstore. It involves education, spiritual, intellectual, physical, schools, school conferences, car-pools, extra trips for basketball or orchestra practice, tutoring, camps, camp equipment and transportation. It involves clothes, shopping, laundry, cleaning, mending, letting skirts down and sewing buttons on, or finding someone else to do it. It involves friends, my husband’s, my children’s, my own, and endless arrangements to get together, letters, invitations, telephone calls and transportation hither and yon.”

“For life today in America is based on the premise of ever-widening circles of contact and communication. It involves not only family demands, but community demands, national demands, international demands on the good citizen, through social and cultural pressures, through newspapers

magazines, radio programs, political drives, charitable appeals, and so on. My mind reels with it. What a circus act we women perform every day of our lives. It puts the trapeze artist to shame. Look at us. We run a tight rope daily, balancing a pile of books on the head. Baby-carriage, parasol, kitchen chair, still under control. Steady now!"

"This is not the life of simplicity but the life of multiplicity that the wise men warn us of. It leads not to unification but to fragmentation. It does not bring grace; it destroys the soul." (p. 19-21)

[From "Gift from the Sea: 50th Anniversary Edition" by Anne Morrow Lindbergh (written in 1955) (with new introduction by her son Reeve Lindbergh) Pantheon Books New York 1991 (Note: this passage is accessible through the "search inside this book" feature, which presents when you "look inside" the online 2005 edition at Amazon, using search terms in the passage (Ex: "foster simplicity")(though must be signed in at Amazon to find the passage) (see <https://www.amazon.com/Gift-50th-Anniversary-Anne-Morrow-Lindbergh/dp/0679732411>)]

10) "There are over 1 billion firearms in the world today, including 857 million in civilian hands...."

a) "Total global military expenditure rose to \$1917 billion in 2019...."

"(Stockholm, 27 April 2020) Total global military expenditure rose to \$1917 billion in 2019, according to new data from the Stockholm International Peace Research Institute (SIPRI). The total for 2019 represents an increase of 3.6 per cent from 2018 and the largest annual growth in spending since 2010. The five largest spenders in 2019, which accounted for 62 per cent of expenditure, were the United States, China, India, Russia and Saudi Arabia. This is the first time that two Asian states have featured among the top three military spenders. The comprehensive annual update of the SIPRI Military Expenditure Database is accessible from today at www.sipri.org."

"Global military spending in 2019 represented 2.2 per cent of the global gross domestic product (GDP), which equates to approximately \$249 per person."

[From article "Global military expenditure sees largest annual increase in a decade--says SIPRI--reaching \$1917 billion in 2019" at the website of the Stockholm International Peace Research Institute (SIPRI) (April 27, 2020) (at <https://www.sipri.org/media/press-release/2020/global-military-expenditure-sees-largest-annual-increase-decade-says-sipri-reaching-1917-billion>) (paragraph 1 (in bold) and paragraph 2)]

b) "... 393 million of the civilian-held firearms, 46 percent, are in the United States, which is 'more than those held by civilians in the other top 25 countries combined.'"

"There are over 1 billion firearms in the world today, including 857 million in civilian hands--with American men and women the dominant owners, according to a study released Monday."

"The Small Arms Survey says 393 million of the civilian-held firearms, 46 percent, are in the United States, which is 'more than those held by civilians in the other top 25 countries combined.'"

[From article "Global survey shows more than 1 billion small arms in world, mostly owned by civilians and mostly in the U.S." by Edith M. Lederer (June 18, 2018) at the website of the Chicago Tribune (at <https://www.chicagotribune.com/nation-world/ct-survey-small-arms-world-civilians-20180618-story.html>) (paragraphs 1 and 2)]

11) "The 2001 edition... identifies 10,000 distinct religions, of which 150 have 1 million or more followers (a 'best-estimated count of believers of all religions in each of 238 nations and territories')

a) "... 10,000 distinct religions, of which 150 have 1 million or more followers...."

"Working with a small staff in Richmond, Barrett has produced perhaps the most thorough religion reference ever: two large volumes, running 1,699 pages, of the World Christian Encyclopedia, published by Oxford University Press."

"For the 2001 edition--successor to the 1982 first edition, which took a decade to compile--Barrett sought to count each human being in each religion and religious subcategory in each country as of 1900, 1970, 1990, 1995 and 2000, with projections to 2025."

"The 2001 edition... identifies 10,000 distinct religions, of which 150 have 1 million or more followers (a 'best-estimated count of believers of all religions in each of 238 nations and territories'). A CD-ROM and analytical papers are in the works."

".... he counts 33,830 Christian denominations in more than 200 countries...."

[From article "An Accounting of World's Souls" by Richard N. Ostling (March 17, 2001) at the website of the Washington Post (at <https://www.washingtonpost.com/archive/local/2001/03/17/an-accounting-of-worlds-souls/77be3d53-c00b-4b67-a2db-acff96a113b7/>) (from paragraphs 6, 7, 9, 5, and 25)]

[Note: for a breakdown of the over 33,000 Christian denominations, see webpage "The Facts and Stats on '33,000 Denominations'" (at <http://www.philvaz.com/apologetics/a106.htm>)]

b) Many people have unyielding loyalties to beliefs, identities, and livelihoods; a long history of experience with “us vs. them” narratives; and little interest in collaboration narratives

From Michelle Maiese’s essay on “Moral or Value Conflicts” (at Beyond Intractability website):

“Because systems of meaning and ways of thinking differ from one culture to another, people from different cultures typically develop different ideas about morality and the best way to live. They often have different conceptions of moral authority, truth, and the nature of community.... These cultural differences become even more problematic when groups have radically different expectations about what is virtuous, what is right, and how to deal with moral conflicts.” (paragraph 7)

Some of the problems:

i) “Each party may believe that its ways of doing things and thinking about things is the best way and come to regard other ways of thinking and acting as inferior, strange, or morally wrong.”

(in Section “What is Moral Conflict?”, paragraph 4)

ii) “They may form negative stereotypes and attribute moral depravity or other negative characteristics to those who violate their cultural expectations, while they ignore their own vices and foibles, perceiving their own group to be entirely virtuous.” (in Section “Negative Stereotyping”, paragraph 1)

iii) “Participants in moral conflict often behave immorally, even according to their own standards of behavior, because they believe the actions of their enemies force them to do so....The demonization or dehumanization of one's opponent that often occurs in moral conflict paves the way for hateful action and violence.” (in Section “Effects of Moral Conflict”, paragraph 1)

iv) “They may view any compromise about their most cherished values as a threat to their very identity and a grave evil.” (in Section “Why Moral Conflict is Intractable?”, paragraph 5)

[From article “Moral and Value Conflicts” at the website Beyond Intractability (at <https://www.beyondintractability.org/essay/intolerable-moral-differences>)]

c) “Describe carefully the creed or official statements of said religious sect or organization as it relates to participation in war.” (re “opposition to military service because of religious training or belief”)

Consider the following statement:

“Most people would consider it unusual for a person to request to be excused from military service based on their religious, spiritual, or moral convictions.”

Please place a checkmark in front of the response below which best represents your view of the above statement

- agree
- agree in some ways
- disagree in some ways
- disagree
- have different view--or different way of understanding our present circumstances

Your different view, or different way of understanding our present circumstances:

Also, consider the following excerpts from the (“older”) Wikipedia entry for “Conscientious Objector”-- which I found in the article “The History of Conscientious Objection” at the website for the National Peace Museum of Conscientious Objection and Anti-War Activism (at <http://www.nationalpeacemuseum.org/history.html>) (excerpt cites Wikipedia, but current Wikipedia entry does not include a reference to DSS 47 or the ten questions)

“During World War II, all registrants were sent a questionnaire covering basic facts about their identification, physical condition, history, and also provided a checkoff to indicate opposition to military service because of religious training or belief. Men marking the latter option received a DSS 47 form with ten questions:

- Describe the nature of your belief which is the basis of your claim.
- Explain how, when, and from whom or from what source you received the training and acquired the belief which is the basis of your claim.

Do We Have Moral Compasses We Can Rely On?

- Give the name and present address of the individual upon whom you rely most for religious guidance.
 - Under what circumstances, if any, do you believe in the use of force?
 - Describe the actions and behavior in your life which in your opinion most conspicuously demonstrate the consistency and depth of your religious convictions.
 - Have you ever given public expression, written or oral, to the views herein expressed as the basis for your claim made above? If so, specify when and where.
 - Have you ever been a member of any military organization or establishment? If so, state the name and address of same and give reasons why you became a member.
 - Are you a member of a religious sect or organization?
 - Describe carefully the creed or official statements of said religious sect or organization as it relates to participation in war.
 - Describe your relationships with and activities in all organizations with which you are or have been affiliated other than religious or military.”
-

Question:

How many people in the world (as an estimate between 0% and 100%) would qualify as someone who could legitimately be excused from a military service requirement based on our religious, spiritual, or moral convictions?

12) Inequalities

a) “UN report sends ‘sobering message’ of deeply entrenched hunger globally”

Key Numbers

- 690 million undernourished or hungry people in the world.
- 840 million people are forecast to be hungry in 2030 on current trends.
- 8.9 per cent of people in the world are hungry.
- 2 billion people are unable to access safe, nutritious and sufficient food year-round.
- 750 million people are severely food insecure.
- 3 billion people cannot afford a healthy diet.
- 5 starch-only meals can be purchased for the cost of a single healthy meal.

- 97 per cent of health costs could be offset by switching to healthy diets.
- 74 per cent of gas emissions costs could be offset by switching to healthy diets.
- 132 million: the additional number of people in 2020, who could become chronically hungry, as a result of the COVID-19 pandemic.

[From article “UN report sends ‘sobering message’ of deeply entrenched hunger globally” (July 30, 2020) at the Un News website (at <https://news.un.org/en/story/2020/07/1068261>) (see “Key Numbers” box)]

b) “Most of the world's population live in countries where overweight and obesity kills more people than underweight.”

“Key facts

- Worldwide obesity has nearly tripled since 1975.
- In 2016, more than 1.9 billion adults, 18 years and older, were overweight. Of these over 650 million were obese.
- 39% of adults aged 18 years and over were overweight in 2016, and 13% were obese.
- Most of the world's population live in countries where overweight and obesity kills more people than underweight.
- 38 million children under the age of 5 were overweight or obese in 2019.
- Over 340 million children and adolescents aged 5-19 were overweight or obese in 2016.
- Obesity is preventable.”

[From the “Obesity and overweight” webpage at the website of the World Health Organization (WHO) (at <https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight>) (in Section “Key Facts”)]

c) “... advertising... with all its vast power to influence values and conduct... ultimately regards man as a consumer and defines its own mission as one of stimulating him to consume or to desire to consume.”

“... advertising has in its dynamics no motivation to seek the improvement of the individual or to impart qualities of social usefulness, unless conformity to material values may be so characterized. And though it wields an immense social influence, comparable to the influence of religion and learning, it has no social goals and no social responsibility for what it does with its influence, so long as it refrains from palpable violations of truth and decency. It is this lack of institutional responsibility, this lack of inherent social purpose to balance social power, which, I would argue, is a basic cause for concern about the role of advertising. Occasional deceptions, breaches of taste, and deviations from sound ethical conduct are in a sense superficial and are not necessarily intrinsic. Equally, high-minded types of advertising which

we see more regularly than we sometimes realize are also extraneous to an analysis of the basic nature of advertising. *What is basic is that advertising, as such, with all its vast power to influence values and conduct, cannot ever lose sight of the fact that it ultimately regards man as a consumer and defines its own mission as one of stimulating him to consume or to desire to consume.*"

[From "People of Plenty: Economic Abundance and the American Character" by David M. Potter University of Chicago Press 2009 (p. 177) (accessible through key word search at Google Books (at https://www.google.com/books/edition/People_of_Plenty/yLT95KZEsWEC?hl=en&gbpv=0))]

d) "Global ad spend expected to grow 5.8% in 2021 as the industry begins to recoup the 8.8% fall in 2020 brought about by COVID-19: dentsu Report"

"Award-winning agency network, dentsu recently released its 2021 forecast on Global Advertising Spend (Ad Spend). The report was based on data derived from 59 markets and predicts global ad spend growth of 5.8% in 2021, amounting to USD579 billion."

[From article "Global ad spend expected to grow 5.8% in 2021 as the industry begins to recoup the 8.8% fall in 2020 brought about by COVID-19: dentsu Report" by BI India Partner (February 9, 2021) (at <https://www.businessinsider.in/advertising/ad-agencies/article/global-ad-spend-expected-to-grow-5-8-in-2021-as-the-industry-begins-to-recoup-the-8-8-fall-in-2020-brought-about-by-covid-19-dentsu-report/articleshow/80767588.cms>) (paragraph 1)]

e) "It would be foolish to underestimate the challenge of checking the consumption juggernaut...."

[From "State of the World 2004: Special Focus--The Consumer Society" Worldwatch Institute (accessible through a key word search at Google Books, at https://www.google.com/books/edition/State_of_the_World_2004/-j2ni69-Rm8C?hl=en&gbpv=0) (in Preface, p. xix)]

f) "The top five meat and dairy companies emit more greenhouse gases than ExxonMobil, Shell, and BP"

"If we are to reach the 1.5 °C goal, total global emissions must rapidly decline from 51 gigatons to 13 gigatons by 2050.... Under a business-as-usual scenario, the livestock sector could eat up over 80% of the budget...." (in Section "Profits versus the planet", paragraph 4)

"Tyson expects annual growth of 3–4% from beef and poultry sales, while Marfrig targeted 7.5–9.5% annual growth for 2015–2018.... Danish dairy giant Arla plans to add 2 billion kg of milk to its European supply chain between 2015-2020 – a 14% increase... Fonterra projects a stunning 40% increase in its processed milk volume for 2015–2025." (in Section "Growth at all costs", paragraph 1)

Do We Have Moral Compasses We Can Rely On?

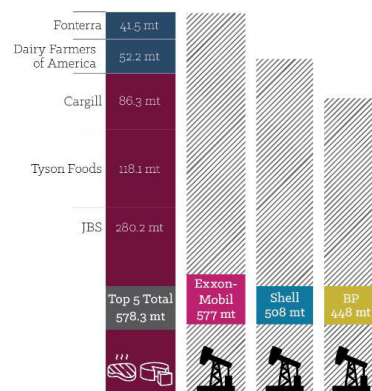
“The main culprits are major meat and dairy exporting regions: United States (US)-Canada; the European Union (EU); Brazil-Argentina; Australia-New Zealand. (These) "surplus protein" regions have surplus production and high per capita consumption of meat and dairy. These countries account for 43% of total global emissions from meat and dairy production, even though they are home to only 15% of the world's population. (Section “Do some countries and regions matter more than others?”, paragraph 1)

“These are the parts of the world where steep reductions in emissions from meat and dairy production are most necessary. This includes exports that fuel overconsumption amongst the more affluent middle and upper classes of developing countries.” (in Section “Profits versus the planet”, paragraph 6)

“Any scenario that brings global meat and dairy production and emissions in line with a 1.5 °C pathway requires significant cuts in emissions by the surplus protein countries’ largest meat and dairy companies. Despite this imperative, there is no comprehensive reporting system across the sector, nor have many companies pledged to reduce net emissions.” (in Section “No accountability, few targets, even fewer details”, paragraph 1)

“Nor are consumers benefiting from the corporate production of cheap meat and dairy. Overproduction and overconsumption of meat and dairy pose significant threats to public health, not only as major contributors to cancer, obesity, diabetes, high blood pressure and other health problems, but also because factory farms have become a leading source of antibiotic resistance and highly pathogenic diseases. Many consumers try to address these problems by making specific dietary choices. But this, on its own, is a limited solution. We must join forces to fix the food system so that it can supply everyone with moderate amounts of high-quality meat and dairy, in a way that respects people, animals and the planet.” (in Section “How do we get out of this?”, paragraph 4)

FIGURE 4: The top 5 meat and dairy companies combined emit more greenhouse gases than ExxonMobil, Shell or BP



Sources: GRAIN & IATP. See Appendix, Methodology Note, section B; Griffin, Dr. Paul, "The Carbon Majors Database: CDP Carbon Majors Report 2017," Climate Accountability Institute, 2017, <http://bit.ly/carbon-majors-report>.

[From article “Emissions impossible: How big meat and dairy are heating up the planet” by GRAIN and the Institute for Agriculture and Trade Policy (IATP) (July 18, 2018) (at

<https://grain.org/article/entries/5976-emissions-impossible-how-big-meat-and-dairy-are-heating-up-the-planet>)

[Note: “GRAIN is a small international non-profit organisation that works to support small farmers and social movements in their struggles for community-controlled and biodiversity-based food systems.”) (at above webpage, see top of page)]

13) Plastic

a) “The researchers found plastic fibres at the north pole. With plastic recently discovered [at the deepest point on Earth](#), the Mariana Trench, and the [peak of Mount Everest](#), it is clear humanity’s litter has polluted the entire planet.”

“The [Arctic](#) is ‘pervasively’ polluted by microplastic fibres that most likely come from the washing of synthetic clothes by people in Europe and North America, research has found.

“The most comprehensive study to date found the microplastics in 96 of 97 sea water samples taken from across the polar region. More than 92% of the microplastics were fibres, and 73% of these were made of polyester and were the same width and colours as those used in clothes. Most of the samples were taken from 3-8 metres below the surface, where much marine life feeds.”

“Other recent analysis estimated that [3,500tn plastic microfibrils from clothes washing](#) in the US and Canada ended up in the sea each year, while modelling suggested plastic dumped in the seas around the UK was [carried to the Arctic within two years.](#)”

“The researchers found plastic fibres at the north pole. With plastic recently discovered [at the deepest point on Earth](#), the Mariana Trench, and the [peak of Mount Everest](#), it is clear humanity’s litter has polluted the entire planet. It is known to injure wildlife that mistake it for food. People also consume microplastics [via food](#) and [water](#), and [breathe](#) them in, although the health impact is not yet known.”

[From article “Clothes washing linked to ‘pervasive’ plastic pollution in the Arctic” by Damian Carrington, Environment Editor (January 12, 2021) (at

<https://www.theguardian.com/environment/2021/jan/12/clothes-washing-linked-to-pervasive-plastic-pollution-in-the-arctic>) (paragraphs 1-4)]

b) “Nearly 700 species (of marine animals), including endangered ones, are known to have been affected...”

“Because plastic wasn’t invented until the late 19th century, and production really only took off around 1950, we have a mere 9.2 billion tons of the stuff to deal with. Of that, more than 6.9 billion tons have become waste. And of that waste, a staggering 6.3 billion tons never made it to a recycling bin—a figure that stunned the scientists who crunched the numbers in 2017.” (paragraph 4)

“Meanwhile, ocean plastic is estimated to kill millions of marine animals every year. Nearly 700 species, including endangered ones, are known to have been affected by it. Some are harmed visibly—strangled by abandoned fishing nets or discarded six-pack rings. Many more are probably harmed invisibly. Marine species of all sizes, from zooplankton to whales, now eat microplastics, the bits smaller than one-fifth of an inch across.” (paragraph 6)

“The revolution accelerated in the early 20th century, once plastics began to be made from the same stuff that was giving us abundant, cheap energy: petroleum. Oil companies had waste gases like ethylene coming out the stacks of their refineries. Chemists discovered they could use those gases as building blocks, or monomers, to create all sorts of novel polymers--polyethylene terephthalate, for example, or PET--instead of working only with polymers that already existed in nature. A world of possibilities opened up. Anything and everything could be made of plastic, and so it was, because plastics were cheap.” (paragraph 22)



[“At Dow Chemical’s giant plant in Freeport, Texas, large hydrocarbon molecules from fossil fuels are cracked at high temperature to produce 1.65 million tons a year of ethylene--the building block of polyethylene, one of the most widely used plastics.” Photo by Randy Olson]

Do We Have Moral Compasses We Can Rely On?

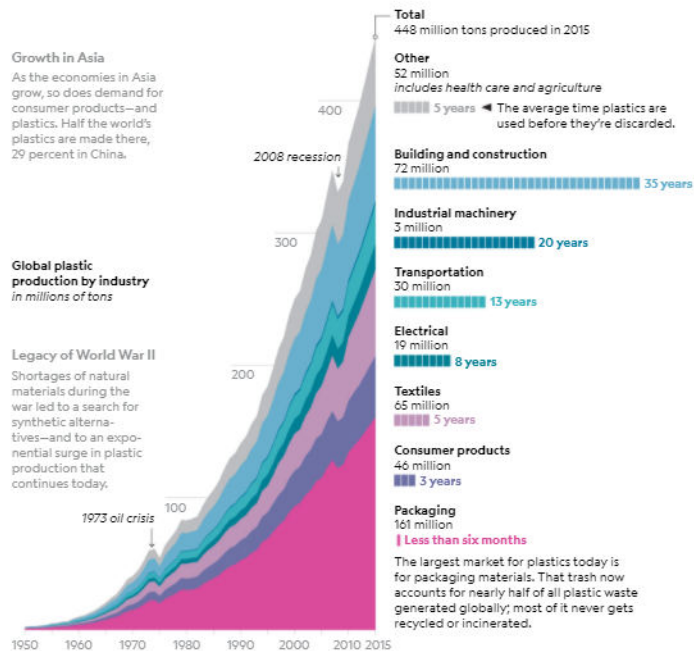
“They were so cheap, we began to make things we never intended to keep. In 1955 Life magazine celebrated the liberation of the American housewife from drudgery. Under the headline ‘Throwaway Living,’ a photograph showed a family flinging plates, cups, and cutlery into the air. The items would take 40 hours to clean, the text noted--‘except that no housewife need bother’.” (paragraph 23)

“... roughly 40 percent of the now more than 448 million tons of plastic produced every year is disposable, much of it used as packaging intended to be discarded within minutes after purchase.” (paragraph 24)

“It’s unclear how long it will take for that plastic to completely biodegrade into its constituent molecules. Estimates range from 450 years to never.” (paragraph 5)

A LIFETIME OF PLASTIC

The first plastics made from fossil fuels are just over a century old. They came into widespread use after World War II and are found today in everything from cars to medical devices to food packaging. Their useful lifetime varies. Once disposed of, they break down into smaller fragments that linger for centuries.



Jason Treat and Ryan Williams, NGM Staff

Source: Roland GEyer, University of California, Santa Barbara

[From article “We Made Plastic. We Depend On It. Now We’re Drowning In It” by Laura Parker (from the June, 2018 of National Geographic magazine) (online at <https://www.nationalgeographic.com/magazine/article/plastic-planet-waste-pollution-trash-crisis?loggedin=true> --access requires \$2.99 subscription, which can be canceled at any time.)]

c) “If we continue to pollute at this rate, there will be more plastic than fish in the ocean by 2050.”

[From article “90% of plastic polluting our oceans comes from just 10 rivers” by Alex Gray (June 8, 2018) at the website of the World Economic Forum (at <https://www.weforum.org/agenda/2018/06/90-of-plastic-polluting-our-oceans-comes-from-just-10-rivers/>) (paragraph 2)]

d) “Microplastics revealed in the placentas of unborn babies” (Guardian; December, 2020)

“Microplastic particles have been revealed in the placentas of unborn babies for the first time, which the researchers said was ‘a matter of great concern’.”

“The health impact of microplastics in the body is as yet unknown. But the scientists said they could carry chemicals that could cause long-term damage or upset the foetus’s developing immune system. The particles are likely to have been consumed or breathed in by the mothers.”

“The particles were found in the placentas from four healthy women who had normal pregnancies and births. Microplastics were detected on both the foetal and maternal sides of the placenta and in the membrane within which the foetus develops.”

“A dozen plastic particles were found. Only about 4% of each placenta was analysed, however, suggesting the total number of microplastics was much higher. All the particles analysed were plastics that had been dyed blue, red, orange or pink and may have originally come from packaging, paints or cosmetics and personal care products.”

“Microplastics pollution has reached every part of the planet, from the summit of Mount Everest to the deepest oceans. People are already known to consume the tiny particles via food and water, and to breathe them in.”

“Their effect in the body is unknown but scientists say there is an urgent need to assess the issue, particularly for infants. In October, scientists revealed that babies fed formula milk in plastic bottles are swallowing millions of particles a day. In 2019, researchers reported the discovery of air pollution particles on the foetal side of placentas, indicating that unborn babies are also exposed to the dirty air produced by motor traffic and fossil fuel burning.”

[From article “Microplastics revealed in the placentas of unborn babies” by Damian Carrington, Environment Editor (December 22, 2020) (at <https://www.theguardian.com/environment/2020/dec/22/microplastics-revealed-in-placentas-unborn-babies>) (paragraphs 1-4, 9 and 10)]

14) “(In the U.S.) Commercially spent nuclear fuel is stored at reactor sites where the electricity was generated. High-level radioactive waste and spent fuel from national defense activities is stored at several DOE managed sites. While this temporary storage is safe in the near-term, we need a sustainable, long-term solution.”

[Source--U.S. Department of Energy poster, see h) below]

a) “As of April 2020, there are 440 operable (nuclear) power reactors in the world.... Additionally, there are 55 reactors under construction and 109 reactors planned....”

“As of April 2020, there are 440 operable (nuclear) power reactors in the world, with a combined electrical capacity of 390 GW. Additionally, there are 55 reactors under construction and 109 reactors planned, with a combined capacity of 63 GW and 118 GW, respectively, while 329 more reactors are proposed.”

“The list only includes civilian nuclear power reactors used to generate electricity for a power grid. All commercial nuclear reactors use nuclear fission.”

[From the Wikipedia webpage for “List of Nuclear Reactors” (at https://en.wikipedia.org/wiki/List_of_nuclear_reactors) (paragraph 1)]

b) “The NRC [Nuclear Regulatory Commission (USA)] believes spent fuel pools and dry casks both provide adequate protection for public health and safety and the environment.”

(From Section “Storage and Disposal”, paragraphs 1-3 and photograph of Dry Cask Storage Units)

“All U.S. nuclear power plants store spent nuclear fuel in ‘spent fuel pools’. These pools are made of reinforced concrete several feet thick, with steel liners. The water is typically about 40 feet deep and serves both to shield the radiation and cool the rods.”



Dry Cask Storage of Spent Fuel

“As the pools near capacity, utilities move some of the older spent fuel into ‘dry cask’ storage. These casks are stainless steel canisters surrounded by concrete. Fuel is typically cooled at least five years in the pool before transfer to cask. NRC has authorized transfer as early as three years; the industry norm is about 10 years. The NRC certifies cask designs and licenses dry cask storage facilities for up to 40 years. The certifications and licenses can be renewed.”

“The NRC believes spent fuel pools and dry casks both provide adequate protection for public health and safety and the environment. Therefore there is no pressing safety or security reason to mandate earlier transfer of fuel from pool to cask.”

(From Section “High Level Waste”, paragraphs 2-4)

“During the fission process, two things happen to the uranium in the fuel. First, uranium atoms split, creating energy that is used to produce electricity. The fission creates radioactive isotopes of lighter elements such as cesium-137 and strontium-90. These isotopes, called ‘fission products,’ account for most of the heat and penetrating radiation in high-level waste. Second, some uranium atoms capture neutrons produced during fission. These atoms form heavier elements such as plutonium. These heavier-than-uranium, or ‘transuranic,’ elements do not produce nearly the amount of heat or penetrating radiation that fission products do, but they take much longer to decay. Transuranic wastes, sometimes called TRU, account for most of the radioactive hazard remaining in high-level waste after 1,000 years.”

“Radioactive isotopes eventually decay, or disintegrate, to harmless materials. Some isotopes decay in hours or even minutes, but others decay very slowly. Strontium-90 and cesium-137 have half-lives of about 30 years (half the radioactivity will decay in 30 years). Plutonium-239 has a half-life of 24,000 years.”

“High-level wastes are hazardous because they produce fatal radiation doses during short periods of direct exposure. For example, 10 years after removal from a reactor, the surface dose rate for a typical spent fuel assembly exceeds 10,000 rem/hour – far greater than the fatal whole-body dose for humans of about 500 rem received all at once. If isotopes from these high-level wastes get into groundwater or rivers, they may enter food chains. The dose produced through this indirect exposure would be much smaller than a direct-exposure dose, but a much larger population could be exposed.”

[From the “Backgrounder on Radioactive Waste” webpage at the United States Nuclear Regulatory Commission website (at <https://www.nrc.gov/reading-rm/doc-collections/fact-sheets/radwaste.html>)]

c) “The nation (U.S.) has over 80,000 metric tons of spent nuclear fuel from commercial nuclear power plants.”

[bullet 1 (divided out into sentences) from Section “High-Level Waste” at <https://www.gao.gov/nuclear-waste-disposal> (more about source below)]

“Civilian high-level waste.

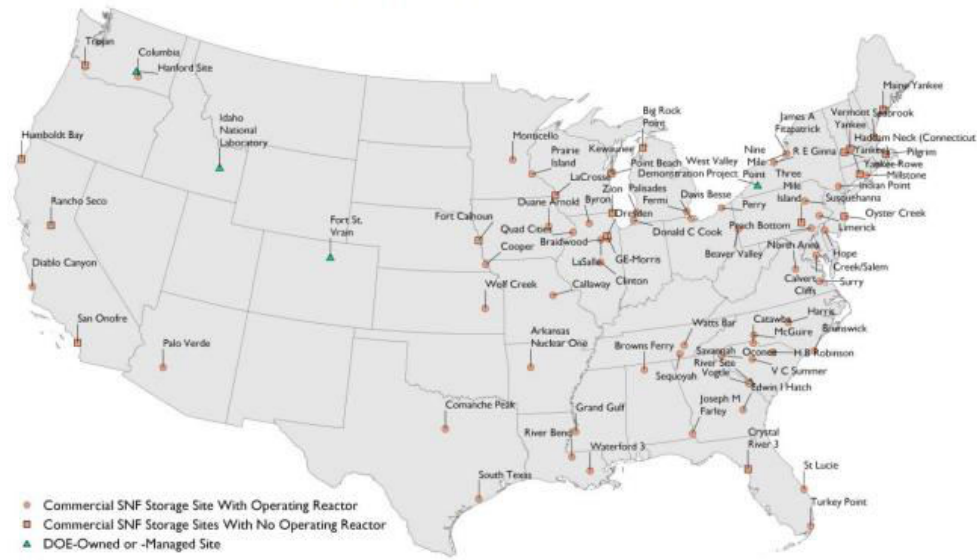
The nation has over 80,000 metric tons of spent nuclear fuel from commercial nuclear power plants.

DOE is responsible for disposing of this waste in a permanent geologic repository, but has yet to build such a facility.

As a result, the amount of spent nuclear fuel stored at nuclear power plants across the country continues to grow by about 2,000 metric tons a year.

Meanwhile, the federal government has paid billions of dollars in damages to utilities for failing to dispose of this waste and may potentially have to pay tens of billions of dollars more in coming decades.”

Figure 1. Nuclear Waste Storage Sites in the United States



Sources: Compiled by CRS using various U.S. Nuclear Regulatory Commission and Nuclear Energy Institute sources, including *Evaluation of Options for Permanent Geologic Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste in Support of a Comprehensive National Nuclear Fuel Cycle Strategy*, FCRD-UFD-2013-000371, Revision 1; SAND2014-0187P (vol. I); SAND2014-0189P (vol. II), April 15, 2014; DOE, *Report to Congress on the Demonstration of the Interim Storage of Spent Nuclear Fuel from Decommissioned Nuclear Power Reactor Sites*, DOE/RW-0596, December 2008; Frank Marcinowski, *Overview of DOE's Spent Nuclear Fuel and High-Level Waste: Presentation to the Blue Ribbon Commission on America's Nuclear Future*, DOE, March 25, 2010.

Notes: Nuclear waste refers to spent nuclear fuel from commercial nuclear power plants and other high-level nuclear waste. The locations of research reactor sites, special nuclear materials (e.g., plutonium-239 and uranium-235), transuranic wastes, or low-level nuclear wastes were not included in this analysis. No nuclear waste storage sites are located in Alaska or Hawaii.

[Map (with sources and notes) from backgrounder “Nuclear Waste Storage Sites in the United States” by the Congressional Research Service (updated April 13, 2020) (at <https://fas.org/sgp/crs/nuke/IF11201.pdf>)]

[Other text (above) from webpage “Disposal of High-Level Nuclear Waste” at the website of the U.S. Government Accountability Office (GAO) (at <https://www.gao.gov/nuclear-waste-disposal>) (in Section “High-Level Waste” (bullet 1))]

d) Decommissioning options for nuclear plants

“The International Atomic Energy Agency (IAEA) has defined three options for decommissioning, the definitions of which have been internationally adopted:

- Immediate Dismantling (or Early Site Release/'Decon' in the USA): This option allows for the facility to be removed from regulatory control relatively soon after shutdown or termination of regulated activities. Final dismantling or decontamination activities can begin within a few months, depending on the facility. Following removal from regulatory control, the site is then available for re-use within a decade.

- Safe Enclosure ('Safstor') or deferred dismantling: This option postpones the final removal of controls for a longer period, usually in the order of 40 to 60 years. The facility is placed into a safe storage configuration until the eventual dismantling and decontamination activities occur after residual radioactivity has decayed. There is a risk in this case of regulatory change which could increase costs unpredictably.
- Entombment (or 'Entomb'): This option entails placing the facility into a condition that will allow the remaining on-site radioactive material to remain on-site without ever removing it totally. This option usually involves reducing the size of the area where the radioactive material is located and then encasing the facility in a long-lived structure such as concrete, that will last for a period of time to ensure the remaining radioactivity is no longer of concern.”

[From the webpage “Decommissioning Nuclear Facilities” at the website of the World Nuclear Association (at <https://www.world-nuclear.org/information-library/nuclear-fuel-cycle/nuclear-wastes/decommissioning-nuclear-facilities.aspx#:~:text=Procedures%20are%20set%20by%20the,be%20completed%20within%2060%20years>) (in Section “Decommissioning options for nuclear plants”, bullets 1, 2, and 3)]

e) “As of 2016, 150 nuclear reactors (worldwide) were shut-off, in several early and intermediate stages (cold shut-down, defueling, SAFSTOR, internal demolition), but only 17 have been taken to fully ‘greenfield status’.

“As of 2016, 150 nuclear reactors were shut-off, in several early and intermediate stages (cold shut-down, defueling, SAFSTOR, internal demolition), but only 17 have been taken to fully ‘greenfield status’. Some of these sites still host spent nuclear fuel in the form of dry casks embedded in concrete filled steel drums.”

[From the Wikipedia webpage for “Nuclear Decommissioning” (at https://en.wikipedia.org/wiki/Nuclear_decommissioning) (in Section “List of inactive or decommissioned civil nuclear reactors”, paragraph 1)]

f) “As of 2017, a total of 10 commercial nuclear reactors in the United States have been successfully decommissioned, and another 20 U.S. nuclear reactors are currently in different stages of the decommissioning process.”

“Since 2013, six commercial nuclear reactors in the United States have shut down, and an additional eight reactors have announced plans to retire by 2025. The retirement process for nuclear power plants involves disposing of nuclear waste and decontaminating equipment and facilities to reduce residual radioactivity, making it much more expensive and time consuming than retiring other power plants. As of 2017, a total of 10 commercial nuclear reactors in the United States have been successfully decommissioned, and another 20 U.S. nuclear reactors are currently in different stages of the decommissioning process.”

“To fully decommission a power plant, the facility must be deconstructed and the site returned to greenfield status (meaning the site is safe for reuse for purposes such as housing, farming, or industrial use). Nuclear reactor operators must safely dispose of any onsite nuclear waste and remove or contain any radioactive material, including nuclear fuel as well as irradiated equipment and buildings.”

[From article “Decommissioning nuclear reactors is a long-term and costly process” at the website of the U.S. Energy Information Administration (at <https://www.eia.gov/todayinenergy/detail.php?id=33792#:~:text=As%20of%202017%2C%20a%20total,stages%20of%20the%20decommissioning%20process>) (paragraphs 1 and 2)]

g) “Plutonium must be made permanently inaccessible because it has a radioactive half-life of 24,000 years.” “... there are 54 metric tons of surplus plutonium.” “The federal government now has no solution in sight to dispose of the plutonium permanently.”

“In Energy Department facilities around the country, there are 54 metric tons of surplus plutonium.” [Note: “The department controls the radioactive materials - plutonium, uranium and tritium - used in America’s nuclear weapons and in the reactors of nuclear-powered aircraft carriers and submarines.”]

“Plutonium must be made permanently inaccessible because it has a radioactive half-life of 24,000 years.”

“The federal government now has no solution in sight to dispose of the plutonium permanently.”

[From article “America's nuclear headache: old plutonium with nowhere to go” by Scot J. Paltrow (April 20, 2018) at the Reuters website (at <https://www.reuters.com/article/us-usa-nukes-plutonium-specialreport/americas-nuclear-headache-old-plutonium-with-nowhere-to-go-idUSKBN1HR1KC>) (paragraph 3, 6, 9 and 16)]

h) Nuclear Waste in the United States (poster) (U.S. Department of Energy)

(at <https://www.energy.gov/sites/prod/files/2016/01/f28/Nuclear%20Waste%20in%20the%20US%20Poster.pdf>)

NUCLEAR WASTE IN THE UNITED STATES

STATUS OF THE WASTE TODAY

The United States has used nuclear power for more than 60 years to produce reliable, low-carbon energy and for national defense activities. These activities have resulted in a build-up of spent nuclear fuel and high-level radioactive waste, currently stored at sites across the country.

Commercial spent nuclear fuel is stored at reactor sites where the electricity was generated. High-level radioactive waste and spent fuel from national defense activities is stored at several DOE-managed sites. While this temporary storage is safe in the near-term, we need a sustainable, long-term solution.



SPENT NUCLEAR FUEL

By far the largest inventory of spent nuclear fuel comes from commercial electricity generation:

The Department estimates that continued operation of the current fleet of nuclear power reactors could increase the total inventory of spent fuel to:

**-70,000
metric tons of
uranium***

**-140,000
metric tons of
uranium****

Nearly all of this spent fuel is being stored at the reactor sites where it was generated, either submerged in pools of water (wet storage) or in shielded casks (dry storage).

HIGH-LEVEL RADIOACTIVE WASTE

High-level radioactive waste, almost all of which was generated by defense nuclear activities, accounts for the next largest portion of the overall inventory:

roughly 90 million gallons of high-level waste liquids, sludges, and solids.

The majority of high-level radioactive waste in the Department's current inventory is:

- at the Hanford and Savannah River sites and is planned to be (or has already been) vitrified into a glass form
- at the Idaho National Laboratory in a dry calcine form
- at the West Valley Demonstration Project site

*Source: U.S. Energy Information Administration, Form GC-859, "Nuclear Fuel Data Survey" (2013).

**Source: Carter, J. and Dennis Vinson, "Nuclear Fuels Storage and Transportation Planning Project Inventory Base" (2014).



i) "America's Radioactive Secret: Oil-and-gas wells produce nearly trillion gallons of toxic waste/year. Investigation shows how it could be... contaminating communities across America"

[From article "America's Radioactive Secret" by Justin Nobel (Rolling Stone website)(more below)]

i) "This radioactivity is often pulled to the surface when oil and gas is extracted--carried largely in the brine."

---“The Earth’s crust is in fact peppered with radioactive elements that concentrate deep underground in oil-and-gas-bearing layers. This radioactivity is often pulled to the surface when oil and gas is extracted--carried largely in the brine.” (paragraph 4)

(“... brine, a naturally occurring waste product that gushes out of America’s oil-and-gas wells to the tune of nearly 1 trillion gallons a year....”--paragraph 2)

---“... thanks to a single exemption the industry received from the EPA in 1980, the streams of waste generated at oil-and-gas wells--all of which could be radioactive and hazardous to humans--are not required to be handled as hazardous waste.” (paragraph 27)

---“... brine can be radioactive whether it comes from a fracked or conventional well; the levels vary depending on the geological formation, not drilling method. Colorado and Wyoming seem to have lower radioactive signatures, while the Marcellus shale, underlying Ohio, Pennsylvania, West Virginia, and New York, has tested the highest. Radium in its brine can average around 9,300 picocuries per liter, but has been recorded as high as 28,500. ‘If I had a beaker of that on my desk and accidentally dropped it on the floor, they would shut the place down,’ says Yuri Gorby, a microbiologist who spent 15 years studying radioactivity with the Department of Energy. ‘And if I dumped it down the sink, I could go to jail’.” (paragraph 14)

---“As of 2016, fracking accounted for more than two-thirds of all new U.S. wells, according to the Energy Information Administration. There are about 1 million active oil-and-gas wells, across 33 states, with some of the biggest growth happening in the most radioactive formation--the Marcellus.” (paragraph 15)

ii) “Brine-spreading is legal in 13 states, including the Dakotas, Colorado, much of the Upper Midwest, northern Appalachia, and New York...” (paragraph 47)

---“In an investigation (resulting in this article) involving hundreds of interviews with scientists, environmentalists, regulators, and workers, Rolling Stone found a sweeping arc of contamination--oil-and-gas waste spilled, spread, and dumped across America, posing under-studied risks to the environment, the public, and especially the industry’s own employees. There is little public awareness of this enormous waste stream, the disposal of which could present dangers at every step--from being transported along America’s highways in unmarked trucks; handled by workers who are often misinformed and underprotected; leaked into waterways; and stored in dumps that are not equipped to contain the toxicity. Brine has even been used in commercial products sold at hardware stores and is spread on local roads as a de-icer.” (paragraph 16)

---“... liquid de-icer AquaSalina... is made with brine from conventional wells. Used for home patios, sidewalks, and driveways--‘Safe for Environment & Pets,’ the label touts--AquaSalina was found by a state lab to contain radium at levels as high as 2,491 picocuries per liter.” (paragraph 53)

---“CPI Road Solutions, an Indianapolis-based snow- and ice-management company, sells hundreds of thousands of gallons of AquaSalina each winter to the Pennsylvania Turnpike Commission and Ohio Department of Transportation, says Jay Wallerstein, a company VP.” (paragraph 58)

“If we caught some ISIS terrorist cells dumping this into our waterways, they would be tried for terrorism and the use of a WMD on U.S. citizens,” says Caggiano. “However, the frac industry is given a pass on all of this.” [“Silverio Caggiano (is) a near 40-year veteran of the Youngstown fire department and a hazardous-materials specialist with the Ohio Hazmat Weapons of Mass Destruction Advisory Committee.”] (both in paragraph 43)

iii) “There are now more than 350 of these legacy lawsuits moving forward in the state (Louisiana).” (paragraph 98)

---“The first state to enact any protections at all was Louisiana, in the late 1980s.” (paragraph 30)

---“Another Times story that year (1990) reported that the radiation measured in oil-and-gas equipment ‘exposes people to levels that are equal to and at times greater than workers receive in nuclear power plants,’ and that pending lawsuits “may ultimately decide whether oil companies can be held responsible for billions of dollars in expenses associated with cleaning up and disposing radioactive wastes at thousands of oil-and-gas sites around the nation’.” (paragraph 32)

---Expert testimony in lawsuits by dozens of Louisiana oil-and-gas industry workers going back decades and settled in 2016 show that pipe cleaners, welders, roughnecks, roustabouts, derrickmen, and truck drivers hauling dirty pipes and sludge all were exposed to radioactivity without their knowledge and suffered a litany of lethal cancers.” (paragraph 19)

---A New Orleans-based lawyer, Smith has been trying cases pertaining to oil-and-gas radioactivity for 30 years and is the author of the 2015 book *Crude Justice*. In Smith’s first case, in 1986, a six-month-pregnant Mississippi woman was sitting on the edge of her bathtub and her hip cracked in half. Tests showed the soil in her vegetable garden had become contaminated with radium from oil-field pipes her husband had cleaned in their yard. “They know,” Smith says. “All of the big majors have done tests to determine exactly what risks workers are exposed to.” (paragraph 22)

---“The levels of radium in Louisiana oil pipes had registered as much as 20,000 times the limits set by the EPA for topsoil at uranium-mill waste sites.” (paragraph 31)

---“...former secretary of the Louisiana Department of Environmental Quality and the first state official to tackle oil’s radioactivity issue, is now 79 years old and lives... in New Mexico. But he has to return to Louisiana once every couple of months to serve as an expert in lawsuits over oil-field contamination... There are now more than 350 of these legacy lawsuits moving forward in the state.” (paragraph 98)

[From article “America’s Radioactive Secret: Oil-and-gas wells produce nearly a trillion gallons of toxic waste a year. An investigation shows how it could be making workers sick and contaminating communities across America” by Justin Nobel (January 21, 2020) at the Rolling Stone website (at <https://www.rollingstone.com/politics/politics-features/oil-gas-fracking-radioactive-investigation-937389/>)]

15) More Inequalities

a) “... the unpaid and underpaid care work done primarily by women and girls around the world.”

“Economic inequality is out of control. In 2019, the world’s billionaires, only 2,153 people, had more wealth than 4.6 billion people. This great divide is based on a flawed and sexist economic system that values the wealth of the privileged few, mostly men, more than the billions of hours of the most essential work--the unpaid and underpaid care work done primarily by women and girls around the world. Tending to others, cooking, cleaning, fetching water and firewood are essential daily tasks for the wellbeing of societies, communities and the functioning of the economy. The heavy and unequal responsibility of care work perpetuates gender and economic inequalities.”

[From Summary Publication for “Time To Care: Unpaid and Underpaid Care Work and The Global Inequality Crisis” Report Oxfam January, 2020 (at <https://oxfamilibrary.openrepository.com/bitstream/handle/10546/620928/bp-time-to-care-inequality-200120-summ-en.pdf>) (see “Oxfam Summary--January 2020” on p. 2, in paragraph 1)]

b) “If everyone were to sit on their wealth piled up in \$100 bills, most of humanity would be sitting on the floor. A middle-class person in a rich country would be sitting at the height of a chair. The world’s two richest men would be sitting in outer space.”

“The gap between the super-rich and the rest of society remains unimaginably huge.”

“In 2019, the world’s billionaires, only 2,153 people, have more wealth than 4.6 billion people.”

“The 22 richest men have more wealth than all the women in Africa.”

“The world’s richest 1% have more than twice as much wealth as 6.9 billion people.”

“If you saved \$10,000 a day since the building of the pyramids in Egypt you would have one-fifth the average fortune of the 5 richest billionaires.”

“If everyone were to sit on their wealth piled up in \$100 bills, most of humanity would be sitting on the floor. A middle-class person in a rich country would be sitting at the height of a chair. The world’s two richest men would be sitting in outer space.”

“The monetary value of women’s unpaid care work globally, for women aged 15 and over, is at least \$10.8 trillion annually--three times the size of the world’s tech industry. “

“Taxing an additional 0.5% of the wealth of the richest 1% over the next 10 years is equal to investments needed to create 117 million jobs in education, health and elderly care and other sectors, and to close care deficits.”

[From Summary Publication for “Time To Care: Unpaid and Underpaid Care Work and The Global Inequality Crisis” Report Oxfam January, 2020 (at <https://oxfamlibrary.openrepository.com/bitstream/handle/10546/620928/bp-time-to-care-inequality-200120-summ-en.pdf>) (see lead sentence, and seven bullets, on p. 8)]

[Note: On p. 21, in footnote 1, Oxfam provides a source for the above calculations illustrating wealth inequality]

c) “The challenge, as U.S. federal authorities realize, is that many of these raw materials are produced in limited amounts domestically.”

Preparing for the Worst-Case Scenario

“Imagine the hypothetical impact of a lack of uranium for nuclear plants, a hampered ability to create high-strength steel and superalloys for the U.S. military, or if U.S. auto manufacturers had limited access to aluminum, steel, PGMs, and battery metals.”

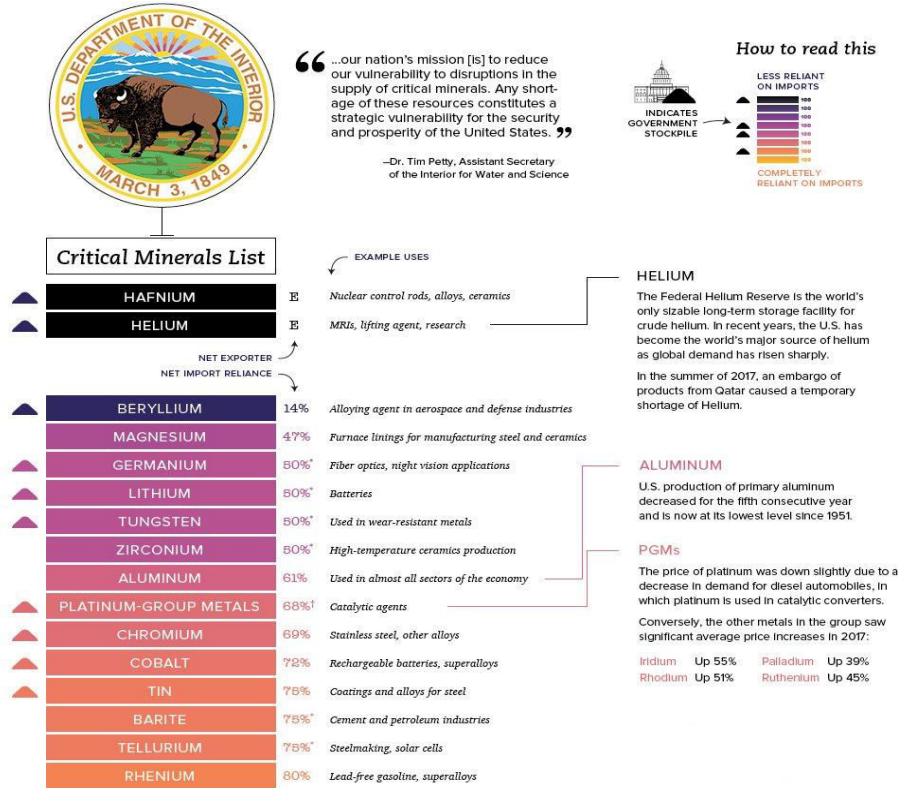
“The challenge, as U.S. federal authorities realize, is that many of these raw materials are produced in limited amounts domestically. In fact, according to the USGS, the country sources at least 31 of the aforementioned materials chiefly through imports.”

35 Minerals Absolutely Critical to U.S. Security (See full infographic:

[http://www.visualcapitalist.com/35-minerals-critical-security-u-s/...](http://www.visualcapitalist.com/35-minerals-critical-security-u-s/))

THE 35 MINERALS CRITICAL TO U.S. NATIONAL SECURITY

This draft list of minerals deemed essential to the economic and national security was released Feb 16, 2018



[From article “35 Minerals Absolutely Critical to U.S. Security” by Jeff Desjardins (February 23, 2018) at the Visual Capitalist website (at <https://www.visualcapitalist.com/35-minerals-critical-security-u-s/>) (paragraphs 9 and 10, and “Chart of the Week”)]

d) “As of 2015, 29 percent of people globally suffer from lack of access to safely managed drinking water. More than double that number are at risk for water contamination from improper wastewater management.”

RESOURCE LIBRARY | ARTICLE

Water Inequality

Lack of safe drinking water and adequate sanitation affects countries around the globe.

GRADES

5 - 8

SUBJECTS

Anthropology, Biology, Health, Conservation, Geography, Human Geography, Social Studies

“More than 70 percent of Earth’s surface is covered in water, yet lack of access to clean water is one of the most pressing challenges of our time. As of 2015, 29 percent of people globally suffer from lack of access to safely managed drinking water. More than double that number are at risk for water contamination from improper wastewater management. Poor water quality affects various aspects of society, from the spread of disease to crop growth to infant mortality. In some regions of the world, lack of sanitation infrastructure, water treatment facilities, or sanitary latrines lead to dire clean water crises.”

[From a “Water Inequality” Resource Library Article (October 1, 2019) at the website for National Geographic (at <https://www.nationalgeographic.org/article/water-inequality/>) (introductory information and paragraph 1)]
[Note: Much additional information about the global water crises, and the global sanitation crisis, can be found at <https://water.org/our-impact/water-crisis/>.]

e) “There is a water main break every two minutes, and an estimated 6 billion gallons of treated water lost each day in the U.S.--enough to fill over 9,000 swimming pools.”

“Our nation’s drinking water infrastructure system is made up of 2.2 million miles of underground pipes that deliver safe, reliable water to millions of people. Unfortunately, the system is aging and underfunded. There is a water main break every two minutes, and an estimated 6 billion gallons of treated water lost each day in the U.S.--enough to fill over 9,000 swimming pools. However, there are signs of progress as federal financing programs expand and water utilities raise rates to reinvest in their networks. It is estimated that more than 12,000 miles of water pipes were planned to be replaced by drinking water utilities across the country in the year 2020 alone.”

[From the webpage “Drinking Water” at the 2021 Report Card for America’s Infrastructure website (at <https://infrastructurereportcard.org/cat-item/drinking-water/>) (paragraph 1)]
[Note: This Report Card website is a project carried out by the American Society of Civil Engineers (ASCE).]

f) “The richest 5% (c.315 million people) were responsible for over a third (37%) of the total growth in emissions.”

From Media Briefing “Confronting Carbon Inequality: Putting climate justice at the heart of the COVID-19 recovery” (by Tim Gore) (September, 2020) (more below)

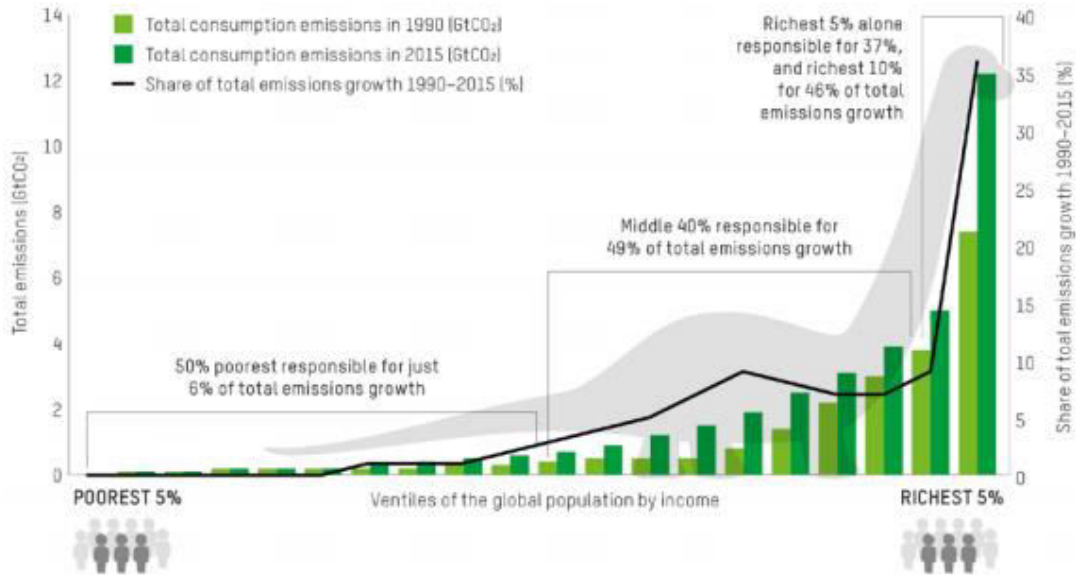
“New research by Oxfam and the Stockholm Environment Institute (SEI) reveals the extreme carbon inequality in recent decades that has driven the world to the climate brink. From 1990 to 2015, a critical period in which annual emissions grew 60% and cumulative emissions doubled, we estimate that:

- The richest 10% of the world’s population (c.630 million people) were responsible for 52% of the cumulative carbon emissions--depleting the global carbon budget by nearly a third (31%) in those 25 years alone (see Figure 1)
- The poorest 50% (c.3.1 billion people) were responsible for just 7% of cumulative emissions, and used just 4% of the available carbon budget (see Figure 1)
- The richest 1% (c.63 million people) alone were responsible for 15% of cumulative emissions, and 9% of the carbon budget – twice as much as the poorest half of the world’s population (see Figure 1)
- The richest 5% (c.315 million people) were responsible for over a third (37%) of the total growth in emissions (see Figure 2), while the total growth in emissions of the richest 1% was three times that of the poorest 50% (see Figure 6).”

(Right Sidebar Text, p. 2)

“It took about 140 years to use 750Gt of the global carbon budget, and just 25 years from 1990 to 2015 to use about the same again--over half of which linked to the consumption of just the richest 10% of people. The remainder will be entirely used up by 2030, without urgent action now.”

Figure 2: The 'dinosaur graph' of unequal carbon emissions growth 1990-2015



“This is an injustice which is felt most cruelly by two groups who have contributed least to the climate crisis: the world’s poorest and most vulnerable people around the world today (already experiencing the impacts of a world that is 1°C hotter)--and future generations who will inherit a depleted carbon budget and an even more dangerous climate.”

[From Media Briefing “Confronting Carbon Inequality: Putting climate justice at the heart of the COVID-19 recovery” by Tim Gore (September 21, 2020) at the website for Oxfam (at <https://www.oxfam.org/en/research/confronting-carbon-inequality>)(where pdf file can be downloaded) (direct access to pdf file at <https://oxfamilibrary.openrepository.com/bitstream/handle/10546/621052/mb-confronting-carbon-inequality-210920-en.pdf>) (from “Summary” on p. 2, paragraph 2 and the four following bullets; right sidebar text from p. 2; Figure 2 from p. 4; last paragraph from p. 4; and right sidebar text from p. 4)]

16) Displacement

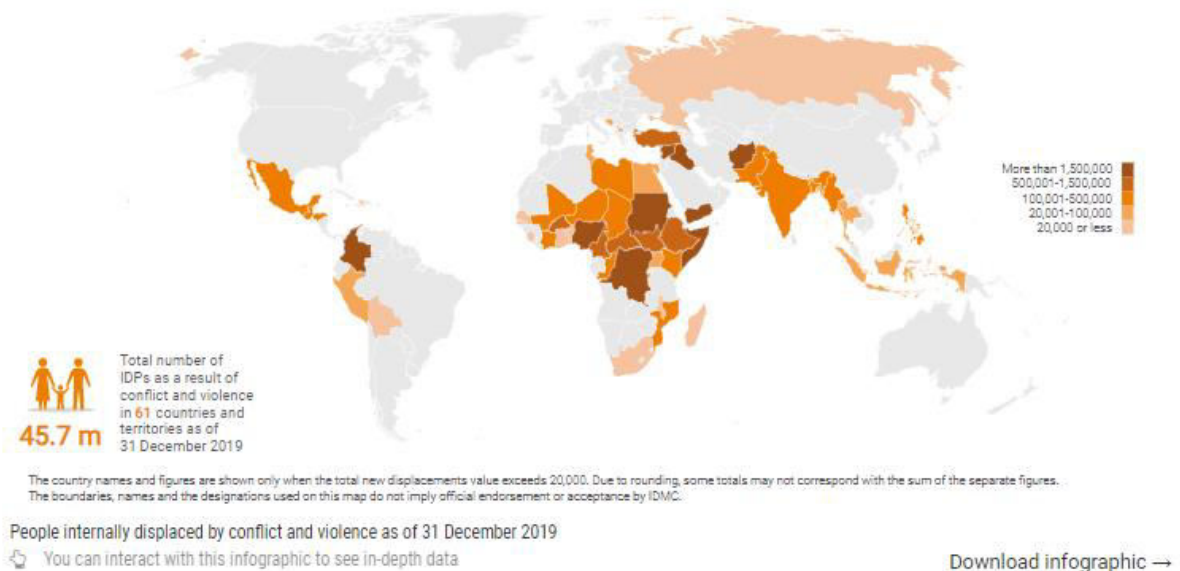
a) People Internally Displaced by Conflict and Violence as of 31 December 2019

PEOPLE LIVING IN DISPLACEMENT

There were **50.8 million** internally displaced people across the world at the end of 2019, **45.7 million as a result of conflict and violence**, and **5.1 million as a result of disasters**. The latter is the first ever global estimate for disasters.



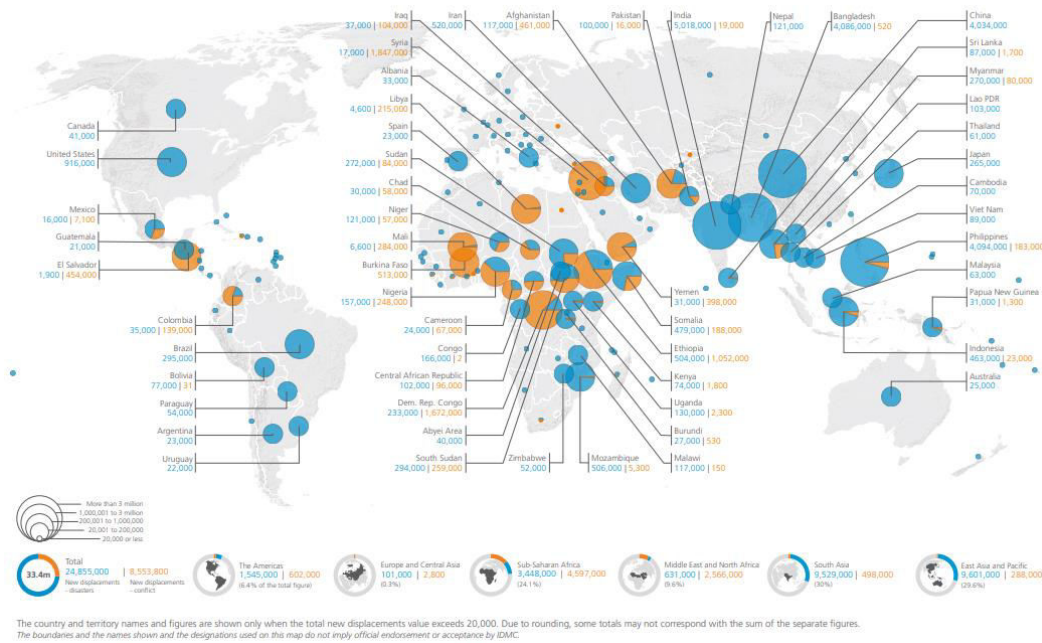
A record **45.7 million people** were living in internal displacement as a result of conflict and violence in **61 countries** and territories as of 31 December 2019. This figure is the highest ever recorded.



[From the “Global Report on Internal Displacement 2020” by the Internal Displacement Monitoring Center (IDMC) at the IDMC website (at <https://www.internal-displacement.org/sites/default/files/publications/documents/2020-IDMC-GRID.pdf>) (Figure 5, p. 11)]

Do We Have Moral Compasses We Can Rely On?

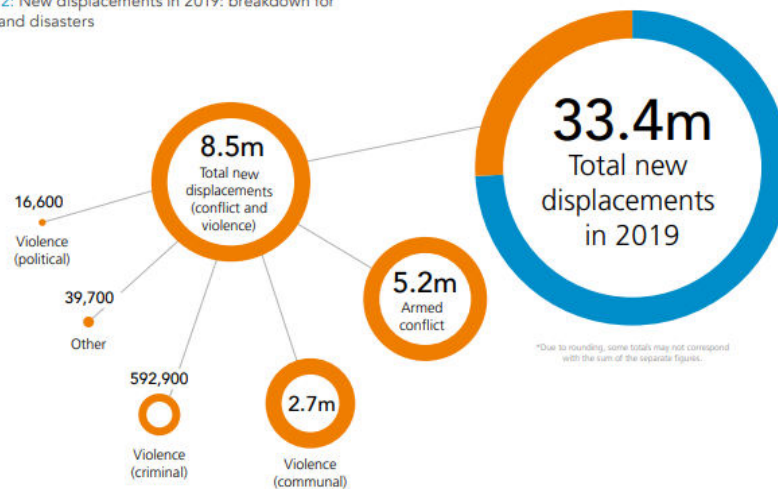
b) New Displacements by Conflict and Disasters in 2019



[From the “Global Report on Internal Displacement 2020” by the Internal Displacement Monitoring Center (IDMC) at the IDMC website (at <https://www.internal-displacement.org/sites/default/files/publications/documents/2020-IDMC-GRID.pdf>) (p. ii, the page after the title page)]

c) New Displacements in 2019: Breakdown by Conflict and Disaster Type

FIGURE 2: New displacements in 2019: breakdown for conflict and disasters



Do We Have Moral Compasses We Can Rely On?

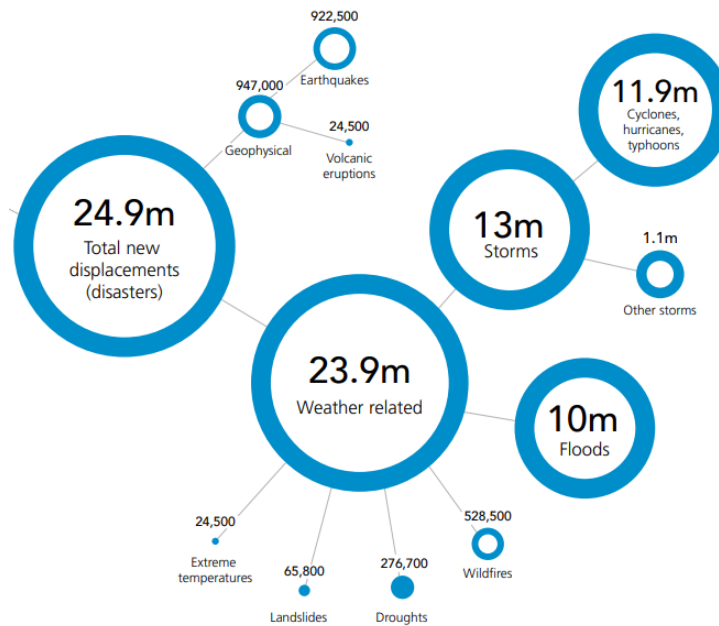
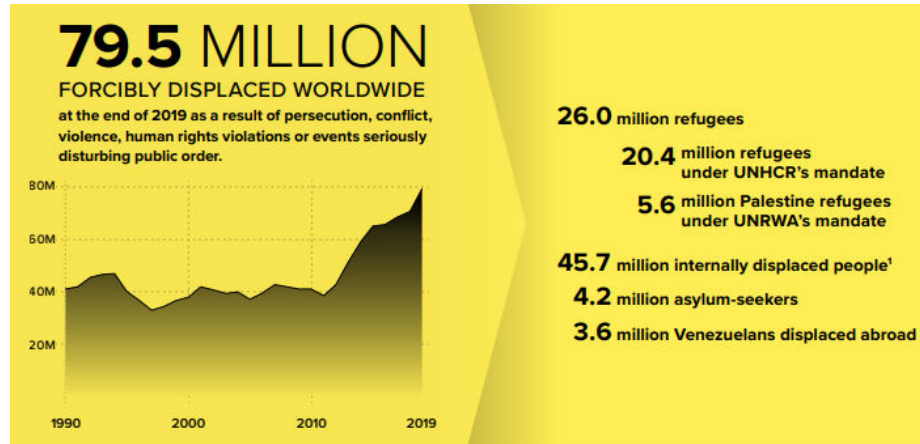


FIGURE 4: Disaster displacements in 2019 by location



[From the “Global Report on Internal Displacement 2020” by the Internal Displacement Monitoring Center (iDMC) at the iDMC website (at <https://www.internal-displacement.org/sites/default/files/publications/documents/2020-IDMC-GRID.pdf>) (Figure 2, p. 9-10; Figure 4, p. 10)]

d) Forcibly Displaced--as a result of persecution, conflict, violence, human rights violations or events seriously disturbing public order



[From report “Global Trends: Forced Displacement in 2019” United Nations High Commissioner for Refugees (UNHCR) (2019) (at <https://www.unhcr.org/5ee200e37.pdf>) (p. 2, the page after the title page)]

e) “The interplay between climate, conflict, hunger, poverty and persecution creates increasingly complex emergencies.”

“Climate change and natural disasters can exacerbate threats that force people to flee within their country or across international borders. The interplay between climate, conflict, hunger, poverty and persecution creates increasingly complex emergencies. For example, food insecurity may become a major driver of conflicts and displacement. An international alliance of the United Nations, governmental and nongovernmental agencies working to address the root causes of extreme hunger reported that conflict, weather extremes and economic turbulence contributed to several disturbing trends. The group reported that at the end of 2019, 135 million people across 55 countries and territories experienced acute food insecurity. In addition, 75 million children had stunted growth and 17 million suffered from wasting. These findings represented the highest level of acute food insecurity and malnutrition documented since the group’s first report in 2017. Eighty per cent of the world’s displaced populations were residing in these 55 countries or territories.”

[From the report “Global Trends: Forced Displacement in 2019” by United Nations High Commissioner for Refugees (UNHCR) (2019) at the UNHCR website (at <https://www.unhcr.org/5ee200e37.pdf>) (p. 12, paragraph 1)]

17) “Some might assume that bond markets are shielded from the effects of climate change, ecosystem degradation, and water scarcity. With more than \$40 trillion of sovereign debt in global markets at any given time, that is a very high-risk game.”

[From article titled “Sovereign Environmental Risk” by Achim Steiner (under-Secretary General, United Nations and Executive Director of United Nations Environmental Programme) and Susan Burns (Founder of the Global Footprint Network) (October 27, 2012)--but referred to as a press release at the website of the United Nations Environment Programme (at <https://www.unenvironment.org/news-and-stories/press-release/sovereign-environmental-risk>) (paragraphs 1, 5, 3, and 6) ; first published at the Project Syndicate website (October 27, 2012)(see <http://www.project-syndicate.org/commentary/natural-resources-and-sovereign-credit-ratings-by-achim-steiner-and-susan-burns>)]

18) “The effects of climate policies have been too small to offset the impact of key drivers of emissions such as economic growth and population growth.”

[From report “Lessons from a Decade of Emissions Gap Assessments” by the United Nations Environment Programme (UNEP) (September, 2019) at <https://wedocs.unep.org/bitstream/handle/20.500.11822/30022/EGR10.pdf?sequence=1&isAllowed=y>]

(from Section 2 “A decade lost – essentially no change in global emissions trend”)

“Despite progress on climate policy in many countries, global GHG emissions continue to grow and show no signs of peaking (Figure 3).” (p. 3, paragraph 1)

“The current level of global GHG emissions is by now almost exactly at the level of emissions projected for 2020 under the business-as-usual, or no-policy, scenarios used in the Emissions Gap Reports (see Figures 1 and 2), which are based on the assumption that no new climate policies are put into place from 2005 onwards. In other words, essentially there has been no real change in the global emissions pathway in the last decade. The effects of climate policies have been too small to offset the impact of key drivers of emissions such as economic growth and population growth.”

(p. 3, paragraph 2)

“Following a period of stabilization from 2014 to 2016, emissions started to rise again in 2017 and 2018. At the same time, energy needs are projected to grow by approximately 30 per cent by 2040. This increasing demand is stimulated by economic growth and the accompanying trends of urbanization, industrialization, infrastructure growth, and a growing global middle class. As the challenge for the energy sector is therefore immense, transforming the way in which energy is produced and consumed will be key to reaching the Paris Agreement goals.” (p. 8, paragraph 1)

C. “The smaller the circumference, the more accurately can we gauge the results of our actions...

1) “... a belief that the primary reward of work should be well-being rather than money....”

a) From “Why the Village Movement?” by J.C. Kumarappa

“... every article in the bazaar has moral and spiritual values attached to it... hence it behooves us to enquire into the antecedents of every article we buy.... (Yet this) is an arduous task, and it becomes almost impossible for ordinary persons to undertake it when the article comes from far off countries. Therefore, it is that we have to restrict our purchase to articles made within our cognizance. This is the moral basis of Swadeshi.” (p. 53-54)

“If we feel it is beyond us to guarantee the concomitant results of all our transactions, it necessarily follows that we must limit our transactions to a circle well within our control. This is the bed rock of swadeshi... The smaller the circumference, the more accurately can we gauge the results of our actions, and (the) more conscientiously shall we be able to fulfill our obligations as trustees.” (p. 60)

“A business transaction does not begin and end with the transfer of goods and payment of money; in addition, it involves the consideration of one’s duties to one’s fellow men.” (p. 117)

“We do not live unto ourselves, and the more we realize the repercussions of our actions on our neighbors and strive to act according to the highest we are capable of, the more shall we advance in our spiritual development.” (p. 55)

[From “Why the Village Movement?” by J.C. Kumarappa The All India Village Industries Wardha, C.P, 1946 (at <https://archive.org/details/in.ernet.dli.2015.118819>) (using page numbers in the book)]

b) “... Ecovillage Design Education (EDE) curriculum, which draws from the experience and expertise of a network of some of the most successful ecovillages and community projects across the Earth....”

i) “... a new kind of global education, specifically designed to meet the challenges and opportunities of the 21st century...”

“We live in a rapidly changing world that is transforming before our very eyes. Humanity is now being challenged as never before to grow in wisdom, maturity, and understanding. A plethora of deep and pressing concerns is calling for our immediate attention, concerns such as: Earth's environmental degradation, including the loss of precious topsoil and forest cover, the encroachment of deserts, the depletion of fisheries and aquifers, the loss of habitat and the extinction of species, etc.; the glaring and increasing disparity between rich and poor leading to exploitation, poverty, and the associated regimen of malnutrition and over-population; the disintegration of families, communities, even entire cultures; unrestrained urbanization resulting in social alienation, displacement, and feelings of disconnection with the natural world; the dimming of a sense of spiritual awareness and purpose; global warming and ozone depletion; etc. And now, looming on the horizon is “peak oil,” with its coming adjustments and retrofits, including the probability of ongoing conflict over access to the remaining energy reserves.

“All of these problems are quite real and, by now, well-documented; but gaining awareness of the extent of the problems is only half the project of becoming educated these days.

“Amidst these intense challenges, and largely catalyzed by them, lies the prospect for tremendous growth in human potential and consciousness. People and communities all over the globe are coming together to reclaim responsibility for creating their own living situations – at local and regional levels. In the process, they are overcoming prior limitations and developing new talents, skills, knowledge and approaches. Paradoxically, many of the most innovative solutions rely on a timeless, perennial kind of wisdom that seems to have been disregarded recently. The potential for a refreshed, renewed, revitalized humanity goes hand-in-hand with meeting the challenges of our present Age.

“The Global Ecovillage Network (GEN) believes the most promising and effective way to deal with all these issues is through education not a typical education but a new kind of global education, specifically designed to meet the challenges and opportunities of the 21st century:

“This is an education where a thorough and objective assessment of the state of the planet is followed by regional, community, and place-based solutions;

an education that empowers individuals and communities with the knowledge for shaping their worlds and becoming more self-reliant;

an education that is universal in scope but local in application, directed toward preserving precious cultural diversity;

an education where investigating theory is followed by practical application;

an education that imparts useful and instrumental life-skills as part of the curriculum;
an education relevant to peoples of both developed and developing countries, rural and urban regions;
an education focused on the complexly interwoven, transdisciplinary issues pertaining to the transition to sustainable culture;
an education promoting and facilitating healthful planetary evolution;
an education exploring and expanding the perceived limits of human potential;
an education identifying and reconnecting all these essential considerations to a meaningful, dignified, high-quality life for all the world's people.

“This is the Ecovillage Design Education (EDE) – an education preparing the way for a sustainable future.

“The EDE is being introduced to the world at this time to complement, correspond with, and assist in setting a standard for, the United Nations’ “Decade of Education for Sustainable Development: 2005-2014.”

[From the preamble to a 116 page “Ecovillage Design Curriculum” Gaia Education website) [Note: This preamble is from a previous version of the “Ecovillage Design Curriculum” (Version 4.0 March 31, 2006), which is accessible at http://www.rivendellvillage.org/Ecovillage_Design_Education.pdf (p. 2-3). In the latest version (Version 5, 2012) of “Ecovillage Design Curriculum” at <http://www.gaiaeducation.org/wp-content/uploads/2017/02/EDE-Curriculum-English.pdf>, the “Foreword” (there is no preamble) describes some of the history of Gaia Education, and is included below)]

ii) “The EDE curriculum is a free resource for anyone wishing to learn about sustainability principles, and especially for those who might like to teach the EDE in their local area.”

“In 1998, 55 ecovillage educators, members of the Global Ecovillage Network with academic and professional backgrounds in a wide range of disciplines, were invited by Gaia Trust to Denmark to discuss new transdisciplinary approaches of sustainability education, building upon the experiences of the ecovillage movement.”

“Gaia Education was created over a series of meetings among these international ecovillage educators. The group decided to call itself the GEESE - Global Ecovillage Educators for a Sustainable Earth - to acknowledge the importance of collaboration and roving leadership as it is exhibited by the migration behaviour of a flock of geese. The GEESE were united in the effort to make the knowledge and skills developed in ecovillages accessible to a wide audience.”

“Major achievement and milestones of Gaia Education to date have been:

First, the development of the groundbreaking Ecovillage Design Education (EDE) curriculum, which draws from the experience and expertise of a network of some of the most successful ecovillages and community projects across the Earth. The EDE was officially launched during the 10th anniversary of the Global Ecovillage Network at the Findhorn Ecovillage in October 2005. The curriculum has a wide range of practical application and is full of innovative materials, ideas and tools that have been developed and tested in communities acting as laboratories of sustainable living.”

“The EDE curriculum is a free resource for anyone wishing to learn about sustainability principles, and especially for those who might like to teach the EDE in their local area.”

“The EDE is consistent with, and representative of, key values in the greater ecovillage movement, values that include: honouring unity through diversity; celebrating diverse cultures and creeds; practicing racial, cultural, and gender equality; promoting social justice and environmental awareness; striving for peace and local self-determination; empowering individuals and local actors; raising consciousness and human potential; and, generally, respecting the living Earth as our planetary home.”

[From the “Foreword” of “Ecovillage Design Curriculum” (Version 5, Gaia Education 2012) by the GEENSE-- Global Ecovillage Educators for a Sustainable Earth (at <http://www.gaiaeducation.org/wp-content/uploads/2017/02/EDE-Curriculum-English.pdf>) (paragraphs 1-4, 8, and 14)]

c) “... a preference for country life... a concern for family nurture and community cohesion....”

“On *Countryside’s* contents page, Jd Belanger outlines what he sees are the essential elements of the back-to-the-country state of mind.

OUR PHILOSOPHY

“It’s not a single idea, but many ideas and attitudes, including a reverence for nature and a preference for country life; a desire for maximum personal self-reliance and creative leisure; a concern for family nurture and community cohesion; a certain hostility toward luxury; a belief that the primary reward of work should be well-being rather than money; a certain nostalgia for the supposed simplicities of the past and an anxiety about the technological and bureaucratic complexities of the present and the future; and a taste for the plain and functional. *Countryside* reflects and supports the simple life, and calls its practitioners *homesteaders*.”

Do We Have Moral Compasses We Can Rely On?

[Notes and Source References: “In September, 1972, Countryside, Rabbit World, and Dairy Goat Guide were consolidated into one magazine. I had been printing all three myself, as well as being the editor and publisher, and it became humanly and economically impossible to continue that kind of schedule. Each section of the “new” magazine had as many pages as the magazine the section sprang from had, so anybody who was interested in all three really got three for the price of one. The name was changed to Countryside and Small Stock Journal.” --from article “The History of Countryside and Small Stock Journal” by Jd Belanger (March 13, 2019) (at <https://www.iamcountryside.com/homesteading/the-history-of-countryside-and-small-stock-journal/>). From the information I can find on the Internet, Jd Belanger continued to be the editor of Countryside and Small Stock Journal until 2001 (Jd Belanger at LinkedIn--at <https://www.linkedin.com/in/j-d-belanger-9a0b6b41>). When Jd Belanger was editor of Countryside and Small Stock Journal, the “Our Philosophy” section was always on the contents page, as mentioned by the quote above. However, since Countryside and Small Stock Journal was bought by Swift Communications (I can find no online record of when that occurred), the issues are behind a pay wall. And I could find no references to the philosophy online, except through Google Books. Thus, the source reference I chose for the above quote is the book “New Pioneers: The Back-To-The-Land Movement and the Search for a Sustainable Future” by Jeffrey Jacob (2010) (at https://www.google.com/books/edition/New_Pioneers/QoXKzfWcuQkC?hl=en&gbpv=0) (which can be searched using key words--quote is on p. 28-29)]

d) Permaculture

i) “It should be possible to design land use systems which approach the solar energy harvesting capacities of natural systems while providing humanity with its needs. This was the original premise of the permaculture concept.”

[From the article “Energy and Permaculture” by David Holmgren (originally published by The Permaculture Activist April 29, 1994) at the website of Resilience (at <https://www.resilience.org/stories/1994-04-29/energy-and-permaculture/#:~:text=The%20permaculture%20strategy%20of%20using,solar%20energy%20is%20precisely%20adaptive.&text=The%20critical%20issue%20of%20the,net%20energy%20availability%20to%20humanity>) (from the last section)]

ii) “Carefully observing natural patterns characteristic of a particular site, the permaculture designer gradually discerns optimal methods for integrating water catchment, human shelter, and energy systems with tree crops, edible and useful perennial plants, domestic and wild animals and aquaculture.”

From a Bay Area Permaculture Group brochure, published in West Coast Permaculture News & Gossip and Sustainable Living Newsletter (Fall 1995):

“Permaculture is a practical concept which can be applied in the city, on the farm, and in the wilderness. Its principles empower people to establish highly productive environments providing for food, energy, shelter, and other material and non-material needs, including economic. Carefully observing natural patterns characteristic of a particular site, the permaculture designer gradually discerns optimal methods for integrating water catchment, human shelter, and energy systems with tree crops, edible and useful perennial plants, domestic and wild animals and aquaculture. Permaculture adopts techniques and principles from ecology, appropriate technology, sustainable agriculture, and the wisdom of indigenous peoples. The ethical basis of permaculture rests upon care of the earth-- maintaining a system in which all life can thrive. This includes human access to resources and provisions, but not the accumulation of wealth, power, or land beyond their needs.”

[From the webpage “What is Permaculture?” at the Permaculture Design quarterly (at <https://www.permaculturedesignmagazine.com/what-is-permaculture>) (in Section “Permaculture Defined”, #6)]

iii) “Water collection, management, and reuse systems like Keyline, greywater, rain catchment, constructed wetlands, aquaponics (the integration of hydroponics with recirculating aquaculture), and solar aquatic ponds (also known as Living Machines) play an important role in permaculture designs.”

“Farming systems and techniques commonly associated with permaculture include agro- forestry, swales, contour plantings, Keyline agriculture (soil and water management), hedgerows and windbreaks, and integrated farming systems such as pond-dike aquaculture, aquaponics, intercropping, and polyculture. Gardening and recycling methods common to permaculture include edible landscaping, keyhole gardening, companion planting, trellising, sheet mulching, chicken tractors, solar greenhouses, spiral herb gardens, swales, and vermicomposting. Water collection, management, and reuse systems like Keyline, greywater, rain catchment, constructed wetlands, aquaponics (the integration of hydroponics with recirculating aquaculture), and solar aquatic ponds (also known as Living Machines) play an important role in permaculture designs.”

[From the webpage “What is Permaculture?” at the Permaculture Design quarterly (at <https://www.permaculturedesignmagazine.com/what-is-permaculture>) (in Section “Characteristics of Permaculture”, paragraph 4)]

iv) 12 Design Principles of Permaculture

“Twelve Permaculture design principles articulated by David Holmgren in his *Permaculture: Principles and Pathways Beyond Sustainability*:

Do We Have Moral Compasses We Can Rely On?

1. *Observe and interact*: By taking time to engage with nature we can design solutions that suit our particular situation.
2. *Catch and store energy*: By developing systems that collect resources at peak abundance, we can use them in times of need.
3. *Obtain a yield*: Ensure that you are getting truly useful rewards as part of the work that you are doing.
4. *Apply self-regulation and accept feedback*: We need to discourage inappropriate activity to ensure that systems can continue to function well.
5. *Use and value renewable resources and services*: Make the best use of nature's abundance to reduce our consumptive behavior and dependence on non-renewable resources.
6. *Produce no waste*: By valuing and making use of all the resources that are available to us, nothing goes to waste.
7. *Design from patterns to details*: By stepping back, we can observe patterns in nature and society. These can form the backbone of our designs, with the details filled in as we go.
8. *Integrate rather than segregate*: By putting the right things in the right place, relationships develop between those things and they work together to support each other.
9. *Use small and slow solutions*: Small and slow systems are easier to maintain than big ones, making better use of local resources and producing more sustainable outcomes.
10. *Use and value diversity*: Diversity reduces vulnerability to a variety of threats and takes advantage of the unique nature of the environment in which it resides.
11. *Use edges and value the marginal*: The interface between things is where the most interesting events take place. These are often the most valuable, diverse and productive elements in the system.
12. *Creatively use and respond to change*: We can have a positive impact on inevitable change by carefully observing, and then intervening at the right time."

[From the Wikipedia webpage "Permaculture" at <https://en.wikipedia.org/wiki/Permaculture> (in the section "Theory", and in the subsection "Twelve Design Principles")]

v) To Summarize... (from the article "Energy and Permaculture" by David Holmgren)

To summarize...

- * Reduce, Reuse, Recycle (in that order).
- * Grow a garden and eat what it produces.
- * Avoid imported resources where possible.
- * Use labor and skill in preference to materials and technology.

Do We Have Moral Compasses We Can Rely On?

- * Design, build, and purchase for durability and repairability.
- * Use resources for their greatest potential use (e.g. electricity for tools and lighting, food scraps for animal feed).
- * Use renewable resources wherever possible even if local environmental costs appear higher (e.g. wood rather than electricity for fuel and timber rather than steel for construction).
- * Use non-renewable and embodied energies primarily to establish sustainable systems (e.g. passive solar housing, food gardens, water storage, forests).
- * When using high technology (e.g. computers) avoid using state of the art equipment.
- * Avoid debt and long-distance commuting.
- * Reduce taxation by earning less.
- * Develop a home-based lifestyle, be domestically responsible.

[From the article “Energy and Permaculture” by David Holmgren (originally published by The Permaculture Activist April 29, 1994) at the website of Resilience (at <https://www.resilience.org/stories/1994-04-29/energy-and-permaculture/#:~:text=The%20permaculture%20strategy%20of%20using,solar%20energy%20is%20precisely%20a,daptive.&text=The%20critical%20issue%20of%20the,net%20energy%20availability%20to%20humanity>) (from the last section)]

vi) Permaculture Global: A growing list of permaculture projects worldwide

“This is the premier place to find out who is doing what, and where, in the permaculture world. You can search for projects by keyword, and/or filter to specific project types. You can even constrain your search by climate zone, so you can find others working in similar conditions as yourself. As you search, you’ll see pins on the world map below appear or disappear to reflect your search results, and you can either browse the project cards or click on map pins to go to individual project profiles.”

[From the webpage “Worldwide Permaculture Projects” at the Permaculture Global website (at <https://permacultureglobal.org/projects>) (paragraph 1)]

e) Transition Network

i) “It’s an approach that has spread now to over 50 countries....”

“Transition is a movement that has been growing since 2005. It is about communities stepping up to address the big challenges they face by starting local. By coming together, they are able to crowd-source solutions. They seek to nurture a caring culture, one focused on supporting each other, both as groups or as wider communities.”

“In practice, they are reclaiming the economy, sparking entrepreneurship, reimagining work, reskilling themselves and weaving webs of connection and support. It’s an approach that has spread now to over 50 countries, in thousands of groups: in towns, villages, cities, Universities, schools. One of the key ways it spreads is through telling inspiring stories, and that’s what we aim to do on this website. We really hope you feel inspired to take part, we’d be honoured if you did.”

[From the webpage “What is Transition?” at the Transition Network website (at <https://transitionnetwork.org/about-the-movement/what-is-transition/>) (paragraphs 1 and 2)]

ii) Essential Guide to Doing Transition

“This guide will give you everything you need to know to start Transition in your community and outlines the processes and activities needed to make it a success. We are thrilled to be able to offer it here in English, Chinese, French, German, Hebrew, Hungarian, Italian, Japanese, Polish, Portuguese, Russian, Swedish and Spanish. If you would like to translate it into another language then please get in contact.”

“It is essential reading for all people involved in Transition, as it explains the 7 essential ingredients of Transition that will give you all you need to get Transition started and established in your community. We hope you find it useful and good luck.”

[Note: There is a “download” button on this webpage for the “The Essential Guide to Doing Transition - English V1.2 application/pdf 9 MB”.]

[From the webpage “Essential Guide to Transition” (by Mike Thomas 22nd August 2018) at the Transition Network website (at <https://transitionnetwork.org/resources-essential-guide-transition/>) (paragraphs 1 and 2)]

iii) “7 Essential Ingredients: Healthy Groups, Vision, Community Involvement, Networks and Partnerships, Practical Projects, Part of a Movement, Reflect and Celebrate”

These seven essential ingredients will enable you to develop and embed Transition within your community.

“Healthy Groups, Vision, Community Involvement, Networks and Partnerships, Practical Projects, Part of a Movement, Reflect and Celebrate”

[Note: This “7 Essential Ingredients” webpage is a starting point from which people can click on “read more” buttons for each of the seven ingredients, and access more resources.]

[From the webpage “7 Essential Ingredients” at the Transition Network website (at <https://transitionnetwork.org/do-transition/starting-transition/7-essential-ingredients/>)

iv) Campaign--“From What Is to What If: Reimagining and Rebuilding Our World”



“Now, more than ever, it’s essential for us to come together to connect with each other, envision positive futures, rethink our national strategy, and take practical action to build community resilience everywhere.”

“To facilitate this process, Transition US is inviting all of our friends, supporters, partners, and members of hundreds local, regional, and national Transition Initiatives throughout this country to participate in a new campaign we’re calling ‘From What Is to What If: Reimagining and Rebuilding Our World.’”

“Named after [Transition Movement founder Rob Hopkins’ 2019 book](#) about ‘Unleashing the power of the imagination to create the future we want,’ this campaign will consist of three overlapping phases. Please click on the phases below to learn more and get involve—“

[From the webpage “From What Is to What If: Reimagining and Rebuilding Our World” at the Transition US website (at <https://www.transitionus.org/whatif/>) (paragraphs 1-4, and one poster-like graphics)]

f) “The Findhorn Ecovillage is a tangible demonstration of the links between the spiritual, social, ecological and economic aspects of life and is a synthesis of the very best of current thinking on human habitats.”

i) “... a constantly evolving model used as a teaching resource by a number of university and school groups as well as by professional organisations and municipalities worldwide.”

“The Findhorn Ecovillage is a tangible demonstration of the links between the spiritual, social, ecological and economic aspects of life and is a synthesis of the very best of current thinking on human habitats. It is a constantly evolving model used as a teaching resource by a number of university and school groups as well as by professional organisations and municipalities worldwide.”

“The Findhorn Ecovillage--

is at the heart of the largest single intentional community in the UK

is a pioneering ecovillage that evolved at The Park from 1985

is a major centre for holistic learning serving thousands of visitors each year from around the world

has an ecological footprint that is around half the national (UK) average

features more than 100 ecologically-benign buildings

supplies energy from four wind turbines

boasts a biological Living Machine waste water treatment system

installed a 250kW biomass boiler in 2010 to serve the central Park area, reducing carbon emissions by around 80 tons a year

includes numerous solar water heating systems

is part of a comprehensive recycling system

is the publisher of the UK’s first technical guide to ecological housing

has a share-issuing community co-operative and a local currency

is served by a car-sharing club that includes zero-emissions electric vehicles”

[From the webpage “Ecovillage Findhorn: New Frontiers for Sustainability” at the website for Findhorn Ecovillage (at <https://www.ecovillagefindhorn.com/index.php/ecovillage-findhorn>) (paragraphs 1 and 4)]

ii) From introduction to course offering “Applied Ecovillage Living”

“The Findhorn Foundation, community, and ecovillage has a long history of facilitating and teaching sustainability practices. During the programme, participants will engage with these resources and get to

meet and learn from inspiring teachers and facilitators with wide-ranging experience and expertise. We will also have self-organised time where we explore arising topics and share perspectives from our different countries and cultures.”

“Together we will learn about:

Social tools for personal and group transformation, empowerment and community building
Urban and rural solutions for transitioning to a resilient society
Local organic food production and right livelihood
Comprehensive Permaculture design introduction
Renewable energy systems and energy efficiency models
Cooperative social economies and complementary currencies
Holistic decision-making processes, including nature and deep ecology
Earth restoration projects and biological waste water treatments
Ecological building and community design
Cultural and Spiritual diversity practices”

[From the webpage “Applied Ecovillage Living” at the website for Findhorn Foundation (at <https://www.findhorn.org/programmes/applied-ecovillage-living-2019/>) (paragraphs 3-4)]

iii) Detailed overview of a course on “Ecovillage Design Curriculum”

“Gaia Education Design for Sustainability Incorporating Transition Towns Training
5 October - 8 November 2013”

“Presented by the Findhorn Foundation College in partnership with the Findhorn Foundation, Global Ecovillage Network and Gaia Education

“Based on the Ecovillage Design Curriculum - an official contribution to the United Nations Decade of Education for Sustainable Development

“You are invited to join this five-week comprehensive training based on the four core pillars of the Ecovillage Design Curriculum: the social, worldview, ecological and economic dimensions of sustainability.

“The Gaia Education curriculum draws on the experience and expertise developed in a network of some of the most successful ecovillages and community projects across the Earth.

“Design for Sustainability Training is an advanced training course based at the Findhorn Ecovillage providing a practical forum for learning and developing skills needed to work effectively with design for sustainability at all levels. The fifth week of the programme offers practice in facilitation skills, for personal growth, spiritual enrichment and sustainable social action.

“Facilitated by

May East - Chief Executive, Gaia Education

Jonathan Dawson - Head of Economics, Schumacher College

Michael Shaw - Director, Ecovillage International

Pracha Hutunuwatr - Director, Right Livelihood Foundation, Thailand

Jane Rasbash - Director, Gaia Education

Daniel Wahl - Research & Innovation, International Futures Forum
and Findhorn Ecovillage experts

“Social Design - Week 1: Oct 5 - Oct 11

Topics include--

Building Community & Embracing Diversity

Communication Skills and Feedback

Facilitation and Decision-Making Processes

Conflict Facilitation

Personal Empowerment and Leadership

Celebrating Life: Creativity and Art

“Ecological Design - Week 2: Oct 12 - Oct 18

Topics include--

Whole Systems Approach to Ecological Design & Bioregionalism

Water

Organic Agriculture and Local Food

Appropriate Technology: Energy

Green Building

“Economic Design - Week 3: Oct 19 - Oct 26

Topics include--

Shifting the Global Economy to Sustainability

How Money Works: Community Banks and Currencies

Right Livelihood

Social Enterprise

Legal and Financial Issues

“Worldview - Week 4: Oct 26 - Nov 1

Topics include--

Holistic Worldview

Listening to and Reconnecting with Nature

Awakening & Transformation of Consciousness

Personal Health, Planetary Health

Socially Engaged Spirituality and Bioregionalism

“Facilitation Skills and Empowerment - Week 5: Nov 2 - Nov 8

Topics include--

Practice in facilitation skills for personal growth

Spiritual enrichment

Sustainable social action”

[(Editor’s Note--SP) Unfortunately, the link for this overview of Ecovillage Design Curriculum no longer exists... however... in Version 5 (2012) of “Ecovillage Design Education” (at <http://www.gaiameducation.org/wp-content/uploads/2017/02/EDE-Curriculum-English.pdf>), the four sections of Ecovillage Design (Social Design, Ecological Design, Economic Design, and Worldview and the topics included in each, are presented in an overview on p. 1, and then explored in depth in the rest of the book.]

g) “A climate emergency action plan: an interview with Paul Allen of the Centre for Alternative Technology”

[Note: Paul Allen External Relations Officer (Centre for Alternative Technology--CAT) and Project leader Zero Carbon Britain (CAT) (1988 - Present)]

[From the blog entry “A climate emergency action plan: an interview with Paul Allen of the Centre for Alternative Technology” at the website of the Commonweal Inspiring Non-violent Social Change (at <https://www.commonwealnonviolence.org/blog/a-climate-emergency-action-plan-an-interview-with-paul-allen-of-the-centre-for-alternative-technology>)]

[(Additional Note: About Commonweal--Well-being for all “Commonweal supports ordinary people who work for a nonviolent world, mainly by:

--sharing resources online

--maintaining a unique collection of books, pamphlets and journals on nonviolent social change, and

--offering a major set of archives on the history of nonviolent direct action”)(at

<https://www.commonwealnonviolence.org/about>)]

2nd February, 2019

A climate emergency action plan: an interview with Paul Allen of the Centre for Alternative Technology
Blog

(Note: the whole blog entry is included here, so quotation marks have been left out)

----How would you summarise the work you do, Paul?

Since its inception in 2007, the Zero Carbon Britain (ZCB) project has offered the hard data and confidence required for visualising a future where we have risen to the demands of climate science.

It has helped to reduce fear and misunderstanding and open new, positive, solution-focused conversations by showing that it is possible for the UK to rapidly transition to net-zero emissions with existing technologies.

My current work is to offer the most up-to-date support tools to citizens and councils who have declared a climate emergency, or are considering a declaration or action locally.



["Raising Ambition: Zero Carbon Scenarios from Across the Globe"](#) (53 pages)

ZCB (Zero Carbon Britain) offers access to ambitious up-to-date modelling that shows that we can

- provide a reliable energy supply for the UK with 100% renewable energy and flexible carbon-neutral backup
- grow the vast majority of the food we need for a healthy, low-carbon diet, and manage our land to capture carbon, nurture biodiversity and increase the health and resilience of ecosystems
- deliver a modern lifestyle, create employment, help reduce poverty, improve our well-being, and ensure that the future we leave for our children and generations to come is safe and sustainable.

Our ZCB work helps build consensus on the necessary action and, most importantly, reveal the opportunities it offers for simultaneously solving multiple other problems (co-benefits).

----What needs to happen now in the UK?

One of the key reasons climate change is such a serious problem is that it is non-linear, containing many systems that feed back on each other and accelerate change.

The reason this has now become an emergency situation is that governments and industry have not shown the necessary leadership, and, so far, have not acted fast enough. We are not waiting for more efficient wind turbines or cheaper solar panels--what is lacking is visionary leadership.

Fortunately, the human response is also non-linear and contains an emerging array of feedbacks that can also accelerate climate solutions.

Since the release of the IPCC 1.5C report, there has been a growing UK political and social consensus that to play our part, as a long-industrialised nation, in avoiding really dangerous climate change, we need to reach net-zero emissions well before 2050.

One of the most exciting ways this is revealing itself is the scale and speed that climate emergency declarations and action plans are emerging at town, city and regional levels.

-----What action can ordinary people in the UK take to make sure this becomes a reality?

In terms of personal action to reduce the impacts of your own lifestyle choices--stopping flying and eating less meat and dairy are two actions that will have immediate effect. Hot on their heels are driving less, insulating your home and switching to a green energy provider.

But to complement individual action, we can also come together in our communities and places of work to press for systemic change--collective action is vital.

City and town councils are increasingly declaring a climate emergency and are building net-zero plans on timelines from 2030 to 2038. The growing UK list includes London, Manchester, Bristol, Frome, Machynlleth, Forest of Dean, Scarborough, Norwich, Brighton, Trafford and Stroud, with many more in the pipeline.

This wave of new leadership at local level is accelerating, and a website has been set up to support them. It highlights a special conference being held on 29th March 2019 in Lancaster to support local groups.

There is also a global map of places that have already declared a climate emergency.

In addition, CAT is holding a special Climate Emergency Solutions Summit on 3rd May, immediately following our next ZCB short course (1st and 2nd May).

CAT's summit will bring together those who have been using ZCB across the UK to cross-fertilise ideas on what works to accelerate change.

----From your experience, what are the biggest barriers to effective action?

Our 2017 report *Zero Carbon Britain: Making it Happen* explores ways of overcoming the barriers. It shows how we can challenge the power of lobbying, media bias, etc.

But perhaps the biggest barrier is in recognising just how much we all do care.

Common Cause surveyed over a thousand people across Greater Manchester; 85% of people attach greater importance to 'compassionate' values – such as social justice, environmental protection, forgiveness and honesty – than they do to 'selfish' values, such as wealth and social status.

But people underestimate one another! 75% of people think that a typical fellow citizen holds compassionate values to be less important; and 65% of people think that a typical fellow citizen holds selfish values to be more important. But coming together to act can help break this barrier.

----What initiatives give you the most hope that humankind can find solutions to the climate emergency? Any activist organisations you see doing good work?

The commitment and power of the groups saying the 'essential no' to what must stop are very inspiring, such as those protesting against fracking in Lancashire or those marching to demand action on climate.

But my main focus is the 'essential yes', such as the growing wave of councils declaring climate action by 2030.

----What's your biggest personal motivation or source of strength?

What keeps me going is the knowledge that our response to this challenge will not be linear.

As we approach a crucial tipping point, waves of actions from all levels of society become larger – as more people see them, more join them...

----Can you recommend any useful guides to climate action?

ZCB plus...

Centre for Alternative Technology--'CAT is an education and visitor centre demonstrating practical solutions for sustainability'

Public Interest Research Centre--'We work with civil society to develop stories and strategies for a more equal, green and democratic society'

Common Cause Foundation--‘a small, passionate team working ... to strengthen and give voice to the compassionate values that underpin social and environmental concern’

EAT-Lancet Commission--‘The EAT-Lancet Commission on Food, Planet, Health brings together more than 30 world-leading scientists from across the globe to reach a scientific consensus that defines a healthy and sustainable diet’

Climate Emergency UK--‘Declare a Climate Emergency – Go Zero Carbon by 2030’

Rapid Transition Alliance--‘We will gather, share and demonstrate evidence of what is already possible to remove excuses for inaction and show ways ahead’

Thank you, Paul!

(activism, Centre for Alternative Technology, climate, climate emergency, co-benefits, compassion, Paul Allen, solutions, Zero Carbon, Zero Carbon Britain) [end of blog entry]

h) “Current high-energy consumer lifestyles were designed before we understood the very serious nature of the climate challenge....”

[from [“Raising Ambition: Zero Carbon Scenarios from Across the Globe”](#)]

i) “There is no shortage of evidence that humanity is entering a very serious place.” (on p. 7, paragraph 1)

ii) “All emissions that can go to zero must go to zero--as rapidly as possible. Not just in electricity, but also in heat, transport, industry and land-use.” (on p. 7, in Section “Why do we mean by Zero?”, paragraph 1)

“Game Over For Wasteful Energy Use: Current high-energy consumer lifestyles were designed before we understood the very serious nature of the climate challenge....” (on p. 9, in Section “Game Over For Wasteful Energy Use”, paragraph 1)

iii) “... we take an in-depth look at 18 case studies of scenarios. These are drawn from 130 scenarios that model net zero, deep decarbonisation, and using up to 100% renewable energy.”

“‘Raising Ambition: Zero Carbon Scenarios...’ collects and highlights the work of hundreds of people around the world to develop snapshots and deep visions of possible futures at the global, regional, national and sub-national scales.” (on p. 7, paragraph 2)

“... we take an in-depth look at 18 case studies of scenarios. These are drawn from 130 scenarios that model net zero, deep decarbonisation, and using up to 100% renewable energy.” (on p. 7, paragraph 2)

“We recommend that multi-solving should become a vital part of all zero carbon scenario development, acting as a tool to identify and optimise co-benefits, and help build coalitions across a range of sectors.” (on p. 11, in Section “The benefits beyond emissions--multi-solving”, paragraph 1)

“By developing evidence-based scenarios and unleashing practical projects, particularly at a local scale where there is flexibility to experiment and innovate, we can begin to normalise new and better relationships with transport, buildings, food and energy.” (on p. 9, in Section “Scenarios can help overcome carbon lock-in”, paragraph 2)

iv) *“It is an ethical imperative that all scenarios also embrace climate equity.... The way we share this out must embrace developing country needs to lift citizens out of poverty and to increase quality of life.”*

“It is an ethical imperative that all scenarios also embrace climate equity. How the remaining global carbon budget is distributed between nations is a complex and contested issue. The way we share this out must embrace developing country needs to lift citizens out of poverty and to increase quality of life.” (on p. 10, in Section “Scenario building processes must reflect a fair and inclusive future”, paragraph 2)

[From the Executive Summary of “Zero Carbon Britain: Raising Ambition” Centre for Alternative Technology (2018) (at <https://cat.org.uk/info-resources/zero-carbon-britain/research-reports/zero-carbon-britain-raising-ambition/>) (Main authors: Paul Allen and Isabel Bottoms)]

i) Activities involved in village development (Sarvodaya Shramadana Movement) (Sri Lanka)

[“Awakening’ means developing human potential, and is a comprehensive process taking place on the spiritual, moral, cultural, social, economic and political levels. Sarvodaya strives for a model of society in which there is neither poverty nor excessive affluence. The movement’s holistic approach is based on Buddhist principles (including goodness, sympathy, and tranquility) and on the Gandhian values of truthfulness, nonviolence, and self-sacrifice.” (in text below)]

[Note: the following is an overview of the development model of the Sarvodaya Shramadana Movement from <https://www.sarvodaya.org/2004/12/27/the-development-model> and **the whole webpage is included here**, as this model of socially engaged spirituality (in this cultural setting, Buddhist principles and Gandhian values) is a very clear and inspiring model for cultural transformation, and it is only one way which people willing to live more lightly on the Earth can cooperate, collaborate, and resolve many challenges at the same time, through wise and compassionate local action.]

Shramadana means 'sharing work, knowledge, talents, and time.' The aim of the Movement is to use shared work, voluntary giving and sharing of resources to achieve the personal and social awakening of everyone from the individual, to the village, and continuing up to the international level.

“Awakening’ means developing human potential, and is a comprehensive process taking place on the spiritual, moral, cultural, social, economic and political levels. Sarvodaya strives for a model of society in which there is neither poverty nor excessive affluence. The movement’s holistic approach is based on Buddhist principles (including goodness, sympathy, and tranquility) and on the Gandhian values of truthfulness, nonviolence, and self-sacrifice.”

The five evolutionary stages of a village

“To fulfill its ambitions to develop human potential and to achieve widespread social effectiveness, the movement is working with a participatory approach in nearly 15,000 villages on the island. The program is adjusted to the specific social, cultural, and religious conditions in each region. At the same time, all of the villages go through five stages of evolution or ‘awakening’.”

“Stage 1 Inquiry from the village and organization of an introductory _shramadana_ camp for the village, during which problems are analyzed together and needs identified.

Stage 2 Establishment of various groups (children’s, youngsters’, mothers’ and farmers’ groups), construction of a child development center, and training of staff.

Stage 3 Program for meeting the basic needs and setting up institutions (including the founding of the Sarvodaya Shramadana Society, which is responsible for the village’s development initiatives);

Stage 4 Measures to produce income and employment; establishment of complete self-reliance and self-financing;

Stage 5 Support for other village communities.”

“The approach is designed in such a way that ten villages are always grouped around a pioneering village that has already reached the fifth stage. These villages cooperate, and the groups of ten are linked to one another in turn at the district and national levels, so as to be able to implement common projects such as a regional water supply. The aim is that the villages should be able to manage themselves as a community--to be organized, self-reliant, and able to act independently.”

Awakening through meeting basic needs

“The Sarvodaya Movement has identified ten elementary and basic needs. Satisfying those means, liberating the spirit from its own limitations and from unequal socioeconomic conditions, and thereby developing human potential in the Buddhist sense.”

These basic needs are:

- * A clean and beautiful environment
- * Adequate provision of clean drinking water
- * Minimal supplies of clothing
- * Adequate and balanced nutrition
- * Simple housing
- * Basic health care
- * Basic communication facilities
- * A minimal supply of energy
- * Holistic education
- * Satisfaction of intellectual and cultural needs

“This list illustrates Sarvodaya’s comprehensive approach to social development. It highlights not only economic and social needs, but also spiritual, moral, and cultural requirements such as cultural programs and village libraries.”

Activities involved in village development

The activities carried out in these three stages of evolution can be divided into ten areas:

- # Capacity building in the community
- # Early childhood development
- # Community Health
- # Relief and rehabilitation
- # Development of village infrastructure
- # Environment and biodiversity
- # Communication development
- # Development of integrated education
- # Applied research
- # Peace work and youth work

“As the first step, measures are carried out jointly that will unify the village community in its development efforts. Village streets are built, wells are repaired, and information about the village’s general needs is collected on a participatory basis. Further activities then include training in the areas of management, leadership, and organizational development, both for nursery school teachers and health-care personnel. In addition, there are seminars on home economics, nutrition, sexuality and health for young people, and library management.”

“All of these activities are accompanied by meditative reflection on the problems to be solved and the solutions to be developed. This reflects the Eastern, Buddhist nature of the movement. Reflection opens up deeper insights and hidden relationships, encouraging a receptive attitude; listening and thinking become tools for discovery. A harmonious relationship between receptiveness and sensitive activity reduces the risk that overlooked, underestimated, or neglected matters might give rise to counter forces that could later disturb or ruin the efforts altogether.”

Special aspects of the program

“A factor vital to success is the provision of explicit support both to young people and to older people. One way in which this can be done is involving young people in the activities and giving them the corresponding responsibilities. This strengthens their identification with the village community and their motivation to collaborate with development efforts. It is mainly young people who are trained to become organizers for village development or members of the Peace Corps. They receive access at the same time to information in the fields of health (sexuality, drugs, suicide prevention), communications (Internet, library access), and environmental protection while cultural and sporting events are also organized.”

“In addition, dialogue between young people and older people is very much encouraged in the community. This is based on the conviction that comprehensive development requires both the creativity and energy of young people and the wisdom of older people. Seminars are therefore held on cooperation between the generations, or on older people’s needs and ways of providing support for them.”

“In view of the continuing civil war, Sarvodaya’s efforts in the field of peace education, conflict resolution and conflict prevention, as well as international understanding, are highly important. Here, too, the emphasis is on children and young people, since they are the ones who will soon be determining the country’s future. In addition to arranging discussions on peace and faith between villagers and religious communities, young people are trained to become members of a peace corps that conducts conflict resolution and conflict prevention activities in the villages--particularly between members of different religious communities, such as Tamils and Sinhalese.”

“Finally, Sarvodaya’s development efforts are not restricted to meeting basic needs such as clean drinking water, housing and access to basic education and health services. In the light of social ‘awakening’ and the development of human potential, the movement also strives to achieve social and political participation for the beneficiaries. This goal is seen in the comprehensive educational and training measures aimed at developing capacities and abilities that can allow self-determined and

responsible development. In addition, the involvement of nearly 15,000 villages means that a certain amount of social and political participation is also taking place at the national level. This 'critical mass'--one-third of all the villages in Sri Lanka are involved in the Sarvodaya movement--favors social change, and therefore has an effect on national development. The Sarvodaya model has in fact already influenced national policy strategies in certain areas such as health and education."

[Note: above: an overview of the development model of the Sarvodaya Shramadana Movement from <https://www.sarvodaya.org/2004/12/27/the-development-model> (the whole webpage has been included)]

j) "From the very beginning, at Tuskegee, I was determined to have the students do not only the agricultural and domestic work, but to have them erect their own buildings." (Booker T. Washington)

[Here are some of excerpts from Booker T. Washington's autobiography "Up From Slavery" (first published in 1901). (online Table of Contents at <http://xroads.virginia.edu/~HYPER/WASHINGTON/toc.html>)]

[Note: For those readers who do not know of Booker T. Washington, he was born into slavery. By a remarkable struggle in his early life, and on his way to Virginia--and by a very fortunate "entrance exam"--he gained the benefits of an education at the Hampton Normal and Agricultural Institute (Hampton, Virginia). During his post graduate work there, he was recommended by its founder and president (former Union General Samuel C. Armstrong) to be the founder of an educational institution in Tuskegee, Alabama (in 1881).]

i) "... in the teaching of civilization, self-help, and self-reliance, the erection of buildings by the students themselves would more than compensate for any lack of comfort or fine finish."

(From paragraphs 1-3 in the Chapter 10 "A Harder Task Than Making Bricks Without Straw")

"From the very beginning, at Tuskegee, I was determined to have the students do not only the agricultural and domestic work, but to have them erect their own buildings. My plan was to have them, while performing this service, taught the latest and best methods of labour, so that the school would not only get the benefit of their efforts, but the students themselves would be taught to see not only utility in labour, but beauty and dignity; would be taught, in fact, how to lift labour up from mere drudgery and toil, and would learn to love work for its own sake. My plan was not to teach them to work in the old way, but to show them how to make the forces of nature--air, water, steam, electric, horsepower--assist them in their labor.

"At first many advised against the experiment of having the buildings erected by the labour of the students, but I was determined to stick to it. I told those who doubted the wisdom of the plan that I

knew that our first buildings would not be so comfortable or so complete in their finish as buildings erected by the experienced hands of outside workmen, but that in the teaching of civilization, self-help, and self-reliance, the erection of buildings by the students themselves would more than compensate for any lack of comfort or fine finish.”

“I further told those who doubted the wisdom of this plan, that the majority of our students came to us in poverty, from the cabins of the cotton, sugar, and rice plantations of the South, and that while I knew it would please the students very much to place them at once in finely constructed buildings, I felt that it would be following out a more natural process of development to teach them how to construct their own buildings. Mistakes I knew would be made, but these mistakes would teach us valuable lessons for the future.”

ii) “Many white people who had had no contact with the school, and perhaps no sympathy with it, came to us to buy bricks because they found out that ours were good bricks. They discovered that we were supplying a real want in the community.”

(From paragraphs 8, 11 and 12) in Chapter X “A Harder Task Than Making Bricks Without Straw”)

“When it came to brickmaking, their distaste for manual labour in connection with book education became especially manifest. It was not a pleasant task for one to stand in the mud-pit for hours, with the mud up to his knees. More than one man became disgusted and left the school...”

“...Brickmaking has now become such an important industry at the school that last season our students manufactured twelve hundred thousand of first-class bricks, of a quality suitable to be sold in any market. Aside from this, scores of young men have mastered the brickmaking trade - both the making of bricks by hand and by machinery - and are now engaged in this industry in many parts of the South.

“The making of these bricks taught me an important lesson in regard to the relations of the two races in the South. Many white people who had had no contact with the school, and perhaps no sympathy with it, came to us to buy bricks because they found out that ours were good bricks. They discovered that we were supplying a real want in the community. The making of these bricks caused many of the white residents of the neighbourhood to begin to feel that the education of the Negro was not making him worthless, but that in educating our students we were adding something to the wealth and comfort of the community. As the people of the neighbourhood came to us to buy bricks, we got acquainted with them; they traded with us and we with them. Our business interests became intermingled. We had something which they wanted; they had something which we wanted. This, in a large measure, helped to lay the foundation for the pleasant relations that have continued to exist between us and the white people in that section, and which now extend throughout the South.”

iii) "As an additional result, hundreds of men are now scattered throughout the South who received their knowledge of mechanics while being taught how to erect these buildings."

(From paragraph 4 in Chapter X "A Harder Task Than Making Bricks Without Straw")

"During the now nineteen years' existence of the Tuskegee school, the plan of having the buildings erected by student labour has been adhered to. In this time forty buildings, counting small and large, have been built, and all except four are almost wholly the product of student labour. As an additional result, hundreds of men are now scattered throughout the South who received their knowledge of mechanics while being taught how to erect these buildings. Skill and knowledge are now handed down from one set of students to another in this way, until at the present time a building of any description or size can be constructed wholly by our instructors and students, from the drawing of the plans to the putting in of the electric fixtures, without going off the grounds for a single workman."

iv) "The people with whom he lives and works are going to think twice before they part with such a man."

(From paragraph 15 in Chapter X "A Harder Task Than Making Bricks Without Straw")

"The same principle of industrial education has been carried out in the building of our own wagons, carts, and buggies, from the first. We now own and use on our farm and about the school dozens of these vehicles, and every one of them has been built by the hands of the students. Aside from this, we help supply the local market with these vehicles. The supplying of them to the people in the community has had the same effect as the supplying of bricks, and the man who learns at Tuskegee to build and repair wagons and carts is regarded as a benefactor by both races in the community where he goes. The people with whom he lives and works are going to think twice before they part with such a man."

[End of excerpts from Booker T. Washington's autobiography "Up From Slavery" (first published in 1901). (online Table of Contents at <http://xroads.virginia.edu/~HYPER/WASHINGTON/toc.html>)]

[Note: The three paragraphs below are from blog entry "This Week in Halls Hill History: The Origin of Langston School" (August 9, 2020) (more on source reference below)]

v) "... the Rosenwald Fund. Using state-of-the-art architectural plans designed by professors at Tuskegee Institute, the fund spent more than four million dollars to build 4,977 schools, 217 teacher homes, and 163 shop buildings in 883 counties in 15 states, from Maryland to Texas. The Rosenwald Fund was based on a system of matching grants, requiring white school boards to commit to maintenance and black communities to aid in construction."

“A collaboration between Booker T. Washington and Julius Rosenwald created the project to build ‘Rosenwald Schools,’ to educate Black students to attempt to allay the chronic underfunding of schools in the Southern states. Booker T. Washington was an educator and philanthropist, and the founder of the Tuskegee Institute. Julius Rosenwald was a clothier who became a part-owner and president of Sears, Roebuck, and Company. Their collaboration required both the Black community and the white local government to contribute to funding the school construction. The local school board was required to operate and maintain the schools. Almost 5,000 schools were built in the former Confederate states and Maryland, Oklahoma, Kentucky, and Missouri. These schools educated almost one-third of black students in the country.”

“As noted in Wikipedia, ‘The school building program was one of the largest programs administered by the Rosenwald Fund. Using state-of-the-art architectural plans designed by professors at Tuskegee Institute, the fund spent more than four million dollars to build 4,977 schools, 217 teacher homes, and 163 shop buildings in 883 counties in 15 states, from Maryland to Texas. The Rosenwald Fund was based on a system of matching grants, requiring white school boards to commit to maintenance and black communities to aid in construction’.”

[The three paragraphs above are from blog entry “This Week in Halls Hill History: The Origin of Langston School” (August 9, 2020) at the Halls Hill Community website (at <https://hallshill.com/tag/rosenwald-fund/>) (From “About my Hall’s Hill Family” webpage (at <https://hallshill.com/about-my-halls-hill-family/>): “But there are other stories from the neighborhood that are not as well known. Here on the website we will share some of those stories on the blog every week.”)]

k) Appropriate Technology Library--1050 Books on 1 USB Drive (by Village Earth)

i) “The Appropriate Technology (AT) Library contains the full text and images from over 1050 of the best books dealing with all areas of self-reliance, do-it-yourself technology--over 150,000 pages. Portable and easy to use on 1 USB drive. The AT Library is currently in use in over 74 countries worldwide.”

ii) “The AT Library gives you the knowledge to solve real-world problems such as: harvesting clean drinking water, making tools, growing your own crops, building and maintaining an irrigation system, preserving crops, reforesting a denuded watershed, starting a small fish hatchery, building a small-scale hydropower scheme, building and maintaining pumps, treating human and animal waste, utilizing solar energy, improving rural cookstove efficiency, constructing energy efficient structures, caring for the sick, non-formal education, preparing for a natural disaster, etc.”

iii) “The AT Library is the complete text and graphics of each book, digitally scanned into Adobe PDF format.... Each book is summarized and indexed in the Appropriate Technology Sourcebook, included with each library. This format is easy to use and navigate and can be read on virtually any computer operating system. It can also be used with the most basic hardware including low MHz laptops, tablets or smartphones.”

For a complete list of the 1050 books included--at the bottom of the Appropriate Technology Library webpage (at <https://villageearth.org/home-2/resources/appropriate-technology-library/>), click on the “Books in the AT Library” tab. Here is a sampling of the titles included in the AT Library: Technologies for Basic Needs, How to Make Twelve Woodworking Tools, Permaculture II, Animal Power in Farming Systems, Small Scale Solar Powered Irrigation Pumping Systems, Water-Pumping Devices, Compost Toilets, Hot Water, The Wind Power Book, Small Scale Hydropower Technologies, Low Cost Passive Solar Greenhouses, Low Cost Country Home Building, Small Scale Papermaking, etc.]

“Village Earth helps reconnect communities to the resources that promote human well-being by enhancing social and political empowerment, community self-reliance and self-determination.”

[From the webpage “Appropriate Technology Library” at the Village Earth website (at <https://villageearth.org/home-2/resources/appropriate-technology-library/>)--paragraph i) is from the banner just below the title of the webpage; paragraphs ii) and iii) are paragraphs 2 and 3 in the “About the ATL” tab, at the bottom of the page.; the last paragraph above is the Village Earth Mission Statement, which is in the right hand bottom corner of the above linked ATL page]

l) Excerpt from a “Farmer Seeking Apprentice” Application Form—“We feel we have a broad education to offer to an apprentice.”

(received by this writer from a “Organic Farm Apprentice Placement Service”)

“We have a diversified mixed crop and livestock farm from which we earn our living, both of us working at it full-time and year around. As market crops go we raise Certified Seed and tablestock potatoes, greenhouse tomatoes, and over 30 types of vegetables. Our young orchard of 300 apple trees is beginning to bear fruit. We make and sell apple cider and maple syrup. Our livestock include a flock of sheep (15 ewes and ram) from which we sell freezer lamb and wool; two Belgian draftmares which we work in our woodlot and on our fields along with a tractor; a Jersey milk cow that supplies us with daily milk and a yearly calf; 20 laying hens, a pig, sheep dogs, and barn cats.”

“Along with the daily tending of livestock and crops, there are on-going projects of brush clearing and bringing new land into production, and fencing. Seasonally there is horse work (maple sap gathering,

logging, crops), apple tree pruning; lambing, sheep shearing; wool spinning and felting; buttermaking, canning, and pickling. We also fit in construction projects: in 1991 finishing up a 20' x 66' vegetable storage/packing shed and greenhouse. We market our crops in three ways: Community Supported Agriculture (CSA) subscription garden, mail order operation, and wholesale to stores and distributors."

"We have had our farm for 15 years and run it as a commercial operation that sustains us both spiritually and financially. Farming is our life and we love the discipline, the opportunity to live and work simply, independently, and ecologically. We work hard and it is a true labor of love. We raise most all of The food and firewood we need, and construct our own buildings. We produce our 12 volt electricity from photovoltaic panels. We feel we have a broad education to offer to an apprentice. Call us if our farm interests you."

[From a copy "Farmer Seeking Apprentice" Form on file (among five others) sent to me from an Organic Farming Association in New England (USA), as I was, at that time, considering doing such an apprenticeship. My only source for this is earlier documents of mine, where I made reference to the original. I did not save the copy I had of the actual piece of paper with the typewritten answers on it. Note: I offer the above, and all of Section C, as an example that, to me personally, as part of the kind of foundation which has a high probability for making the cultural transformation to Zero Carbon Resilience, Sustainable BioDiversity, gender equitable, socio-cultural equitable (carbon footprints, eco-footprints and water footprints), equal justice, requisite emergency aid, and peaceful outcomes... and suggests a way to re-focus our attention from meeting projected rises in energy demand, to downsizing our energy needs, and re-discovering life in small cities, towns, and villages.]

m) Local Food Policy--"Many organizations, both local and national in scope, have developed tools, informational resources, or successful model policies that support an integrated, sustainable and equitable food system at the city or regional level. We have collected a sample of those experiences and resources to provide community advocates with practical tools and ideas for creating local food policy change."

"Levers of change exist in municipal and county governments around the U.S. Community organizations are using local policy to develop a better food system through farm to school programs, local business incubation and food policy councils, and citizen advisory boards to city and state governments. This document is a collection of resources for local food policy assembled from groups across the U.S. Many organizations, both local and national in scope, have developed tools, informational resources, or successful model policies that support an integrated, sustainable and equitable food system at the city or regional level. We have collected a sample of those experiences and resources to provide community advocates with practical tools and ideas for creating local food policy change."

“This document is organized with policies and tools for each area of the food system: production, processing, distribution, consumption, and food waste recovery.... Each of (these) five sections contains ‘toolkits’ created by a range of non-profits, universities, or think tanks.... In regards to production, they offer model language for zoning ordinances that establish or expand protections for both community gardens and farmers’ markets, as well as how neighborhood groups can organize to create a community garden. With food processing, the available toolkits describe how to start a community kitchen incubator and supporting network. Toolkits related to distribution explain how to start a farm-to-school program, establish a sustainable food purchasing policy, improve school food policy rules and help local farmers market their products to local institutions. In regards to consumption, the featured toolkits cover city zoning ordinances that encourage healthy eating choices and how to organize a healthy corner store project. The waste recovery toolkits explain how city officials can implement food and yard waste recycling programs and on-site food reduction and composting for businesses.”

[Source: From Food First Policy Brief #19 “Cutting Through the Red Tape: A Resource Guide for Local Food Policy Practitioners and Organizers” by Beth Sanders, MPH Intern and Annie Shattuck Research Fellow--Food First/Institute for Food and Development Policy December 2011 (at the webpage for “Cutting Through the Red Tape...” <https://foodfirst.org/publication/cutting-through-the-red-tape-a-resource-guide-for-local-food-policy-practitioners-organizers/> (from introduction to the report--p. 1, paragraphs 2, 6-7; pdf file of complete report accessible at bottom of page)]

n) “By supporting items and processes that have lower embodied energy, as well as the companies that produce them, consumers can significantly reduce society’s energy use.”

“The energy invested in a particular thing, during its life from cradle to grave, is called the ‘embodied energy’ of that object. The amount of embodied energy that an item contains depends on the technology used to create it (the origin of materials inputs, how they were created and transported, etc.), the nature of the production system, and the distance the item travels from inception to purchase.” (p. 36, paragraph 5)

“By supporting items and processes that have lower embodied energy, as well as the companies that produce them, consumers can significantly reduce society’s energy use.” (p. 37, paragraph 6)

[From report “State of the World 2004--Special Focus: The Consumer Society” (Worldwatch Institute) (2004) at the website of Green Economics (at <http://www.greeneconomics.net/StateOfWorld-2004.pdf>) (in Chapter 2 “Making Better Energy Choices” by Janet L. Sawin)]

o) Local Currency

i) “The people who choose to use the (local) currency make a conscious commitment to buy local, and in doing so take a personal interest in the health and well-being of their community by laying the foundation for a truly vibrant, thriving economy.”

“... local currencies are once again being recognized as a tool for sustainable economic development. The currency distinguishes the local businesses that accept the currency from those that do not, fostering stronger relationships between the responsible business community and the citizens of the region. The people who choose to use the currency make a conscious commitment to buy local, and in doing so take a personal interest in the health and well-being of their community by laying the foundation for a truly vibrant, thriving economy.”

[From the “Local Currency” webpage at the website for the Schumacher Center for a New Economics (at <http://www.centerforneweconomics.org/content/local-currencies>) (paragraph 2)]

ii) “Federal currency is exchanged for BerkShares at nine branch offices of three local banks and spent at 400 locally owned participating businesses.”

[From the “What are Berkshares?” subsection of the Berkshares website (at http://www.berkshares.org/what_are_berkshares) (paragraph 3)]

p) “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 and apply it to the development of sustainable systems.”

“The transition from an unsustainable fossil fuel-based economy back to a solar-based (agriculture and forestry) economy will involve the application 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 and apply it to the development of sustainable systems.”

“Mollison almost in passing points to three guidelines we should observe in this task.

* The systems we construct should last as long as possible and take least maintenance.

* These systems, fueled by the sun should produce not only for their own needs, but the needs of the people creating and controlling them. Thus they are sustainable as they sustain both themselves and those who construct them.

Do We Have Moral Compasses We Can Rely On?

* We can use non-renewable energy to construct these systems providing that in their lifetime, they store or conserve more energy than we use to construct or maintain them.”

[From the article “Energy and Permaculture” by David Holmgren (originally published by The Permaculture Activist April 29, 1994) at the website of Resilience (at <https://www.resilience.org/stories/1994-04-29/energy-and-permaculture/#:~:text=The%20permaculture%20strategy%20of%20using,solar%20energy%20is%20precisely%20a%20daptive.&text=The%20critical%20issue%20of%20the.net%20energy%20availability%20to%20humanity>) (in section “Mollison”, paragraphs 4 and 5)]

q) If many people can learn to find contentment and quality of life while consuming much less, this limiting of desires at the ‘root’ will save much trouble trying to respond to the symptoms as they materialize worldwide. This is part of the ‘spiritual teachings’ element which often gets overlooked.

r) “Growing Wisdom and Compassion in Small Communities (13 Steps)” (78 pages) by Stefan Pasti

[Summary paper, with overviews of seven steps originally published in the [“IPCR Journal/Newsletter Spring 2005](#) (p. 3-6) at the website of The Interfaith Peacebuilding and Community Revitalization (IPCR) Initiative-- a predecessor (also built by Stefan Pasti) to The Community Peacebuilding and Cultural Sustainability (CPCS) Initiative--and archived at <https://www.cpcsi.org/about-the-ipcr-initiative.html> . The following list is the Table of Contents for the “Growing Wisdom...” paper above. The “Growing Wisdom...” paper is also accessible the “Key Documents and Resources” webpage (of the CPCS Initiative), at <https://www.cpcsi.org/cpcs-initiative-summary-paper.html> .]

[Note: There is an overview of this “constellation of initiatives” approach on p. v-vii, in the Introduction to this paper.]

Growing Wisdom and Compassion in Small Communities (13 Steps)

- 1) Community Good News Networks
- 2) Community Faith Mentoring Networks
- 3) Spiritual Friendships
- 4) Interfaith Peace Vigils
- 5) Recalibrating Our Moral Compasses (ROMC) Surveys
- 6) Community Visioning Initiatives (CVIs)
- 7) Neighborhood Learning Centers (NLCs)
- 8) Spiritually Responsible Investing
- 9) Ecological Sustainability/Permaculture/Ecovillages
- 10) Appropriate Technology
- 11) Food Sovereignty/Food Waste/Local Food Councils/Community Supported Agriculture
- 12) Local Currency
- 13) Neighbor to Neighbor Community Education (NTNCE) Projects in Local Newspapers

s) “The Great Way is very level, but people greatly delight in tortuous paths.”

“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.”

[From Chapter 53 of “Te-Tao Ching” (by Lao Tzu) (possibly 6th Century BCE) translation by Robert G. Hendricks Ballantine Books 1992 --accessible through a key word search (if you are signed in) at https://www.amazon.com/Lao-Tzu-Translation-Discovered-Ma-wang-tui/dp/0345370996?ref_=nav_signin&https://www.amazon.com/Lao-Tzu-Translation-Discovered-Ma-wang-tui/dp/0345370996?ref_=nav_signin&]

D. ... the kind of truthful public discussion we really need to be having.

(Unfortunately, there is a profound gap between the kind of truthful public discussion we are having, and the kind of truthful public discussion we really need to be having.)

1) Question: Evaluating Community Resilience

There are many unprecedented challenges ahead, all of which will directly or indirectly impact Climate Breakdown mitigation and achieving Sustainable BioDiversity, and all of which are either Emergencies in themselves, or require urgent attention during the unprecedented cultural transformation which we must make in the coming decades.

Examples:

Cultures of Violence, Greed, Corruption, Cynicism, and Overindulgence

Global Inequities and Cycles of Malnutrition, Disease, and Death

Toxic Air Pollution

Health Care and Education Accessibility

Accelerating Migration and Displacement

Water Deficits

Widespread Sanitation Issues

Protection Against Floods at Chemical Sites

Radioactive Waste Disposal

Ocean Health Management

Reducing Cyber Threats

Increasing Media Literacy

Marginalization of Wisdom and Compassion

Please choose three statements (one from each of the three categories below)--

which most closely represent your view of your community's plans to resolve each of the 13 challenges listed above. Then write the letter associated with the category, and the letter associated with your choices, next to the challenges listed above.

Do We Have Moral Compasses We Can Rely On?

[Ex: Cultures of Violence, Greed, Corruption, Cynicism, and Overindulgence Rc, Pd, Cc]

Resources (R) (category)

- a) I believe we have more than enough resources to resolve this challenge.
- b) I believe we have sufficient resources to resolve this challenge.
- c) I am not sure if we have enough resources to resolve this challenge.
- d) I am sure we do not have enough resources to resolve this challenge.

Plans (P) (category)

- a) I believe we have a relevant, practical, and doable action plan for resolving this challenge.
- b) I believe we are taking the steps necessary to develop a relevant, practical, and doable action plans for resolving this challenge.
- c) I am not sure if we know how to resolve this challenge.
- d) I do not believe we know how to resolve this challenge.

Confidence (C) (category)

- a) I am confident we can resolve this challenge
- b) I believe we are moving in the right direction to resolve this challenge.
- c) I am not sure if we will be able to resolve this challenge.
- d) I have no confidence in our ability to resolve this challenge.

2) Question: Arriving at Working Definitions of “Right Livelihood”

Please consider what ways of earning a living you would identify as “right livelihood”.

Now imagine a local community resource guide relating to employment, apprenticeships, training, and volunteer opportunities associated with ‘right livelihood.’

And further: imagine a committee commissioned to produce such a ‘right livelihood’ resource guide....

And the individuals who make up the committee commissioned to produce such a resource guide....

- a) What background (qualifications, experiences, etc.) would you like such individuals to have?
- b) What local institutions would you consider most appropriate to commission such a resource guide, and oversee its production?”

3) The concept of "Community Queries" introduced here is simply an expansion of the use of "Queries" by the Religious Society of Friends (Quakers)....

The concept of "Community Queries" introduced here is simply an expansion of the use of "Queries" by the Religious Society of Friends (Quakers), so that the concept applies to the geographical area sense—and the most inclusive sense— of the word "community." Here are 13 specific examples of "Queries" (from sets of queries used by three different Quaker meetings)(in one of my earlier newsletters

- a) "Does our Meeting prepare all its members and children for worship, and for a life consistent with the principles of the Religious Society of Friends?"
- b) "Do you seek employment consistent with your beliefs, and in service to society?"
- c) "Do you weigh your day-to-day activities for their effect on peace-keeping, conflict resolution and the elimination of violence?"
- d) "Are you concerned for responsible use of natural resources and their nurture for future generations?"
- e) "Do you try to avoid wasteful consumption and pollution?"
- f) "Are you working towards the removal of social injustices? Have you attempted to examine their causes objectively, and are you ready to abandon old prejudices and think again?"
- g) "Do any of your interests, important though they may appear to you, unduly absorb your time and energy to the hindrance of your growth in grace and of your service to God?"
- h) "Are you loyal to the truth?"
- i) "When pressure is brought to bear upon you to lower your standards, are you prepared to resist it?"
- j) "Do all adults and children in our Meeting receive our loving care and encouragement to share in the life of our Meeting, and to live as Friends?"
- k) "When a members conduct or manner of living gives cause for concern, how does the Meeting respond?"
- l) "Are you sufficiently conversant with our Christian Discipline to be able, when difficult questions arise, to consider them with an informed mind as well as a loving and tender spirit?"
- m) "Do you live in accordance with your spiritual convictions?"

[From "The IPCR Newsletter/Journal Spring 2005" in the "About the IPCR Initiative" section of The Community Peacebuilding and Cultural Sustainability (CPCS) Initiative (at <https://nebula.wsimg.com/ee2a6e257c340130e1c8eca9588e4031?AccessKeyId=238D35F9602A8D5BA6F3&disposition=0&alloworigin=1>) (p. 4) (which includes source references for all the above queries on p. 10)]

4) Question: Basic Needs and Physical Decadence

Please consider the statement below. Then please mark the box or boxes which best represent your views of the statement--and, if you wish, add additional comments.

“A certain degree of physical comfort is necessary, but... the satisfaction of one’s physical needs must come at a certain point to a dead stop before it degenerates into physical decadence.”

[Mahatma Gandhi (for context of this quote, and source reference, see p. 4 above)]

- | | | | | |
|--------------------------|--------------------------|--|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| agree | agree in some ways | have different view--
or different way of
understanding our
present circumstances | disagree in
some ways | disagree |

Your different view, or different way of understanding our present circumstances:

5) Question: Association with the Godly and Good

Please consider the statement below. Then please mark the box or boxes which best represent your views of the statement, and, if you wish, add additional comments.

Association with the Godly and good is of much assistance for people striving to strive to act according to the highest levels of wisdom and compassion they are able.

- | | | | | |
|--------------------------|--------------------------|--|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| agree | agree in some ways | have different view--
or different way of
understanding our
present circumstances | disagree in
some ways | disagree |

Do We Have Moral Compasses We Can Rely On?

Your different view, or different way of understanding our present circumstances:

6) Question: Benefits of Building Caring Communities

Please consider the statement below. Then please mark the box or boxes.

Building caring communities [“In a caring community, Love will find a way” (SP)] is most beneficial on many levels, as when people striving to realize their spiritual potential find support from other kindred spirits, there is also an increase in assistance towards our fellow human beings, in our communities, and around the world.

- | | | | | |
|--------------------------|--------------------------|--|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| agree | agree in some ways | have different view--
or different way of
understanding our
present circumstances | disagree in
some ways | disagree |

Your different view, or different way of understanding our present circumstances:

7) “The most advanced societies are the ones which are successful at integrating spiritual wisdom into the everyday circumstances of community life.”

- | | | | | |
|---|--|--|---|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I believe it-- and
there is much evidence
to support it | I believe it-- and
there is sufficient
evidence to
support it | I would like to
believe it, but there
isn't enough evidence
to support it | It is difficult to
believe it, with the
way things are
going now | I don't believe it—
there is no evidence
to support it |

Do We Have Moral Compasses We Can Rely On?

- agree
- agree in some ways
- have different view--
or different way of
understanding our
present circumstances
- disagree in
some ways
- disagree

Your different view, or different way of understanding our present circumstances:

8) Question: Which are More Sustainable--Small Towns, Large Cities, both?

Please consider the following statement--

“It is possible to create, support, and sustain (small towns/large cities) which can minimize resource requirements, achieve Zero Carbon Resilience, maintain Sustainable BioDiversity, maintain a high level of compassion for fellow human beings--and which represent what a significant majority of community residents surveyed would describe as a high quality of life.”

Please choose the phrase below which best represents your response to the above statement with “small towns” in it--and the above statement with “large cities” in it.

- () I believe it, and there is much evidence to support it
- () I believe it, and there is sufficient evidence to support it
- () I would like to believe it, but there isn't much evidence to support it
- () It is difficult to believe, with the way things are going now
- () I don't believe it, there is no evidence to support it
- () have different view--or different way understanding our present circumstances

Your different view, or different way of understanding our present circumstances:

9) “We want our teachers to be value-oriented because we want them to be rightly equipped as vehicles of values for the benefit of our children and youth.”

“We want our teachers to be value-oriented because we want them to be rightly equipped as vehicles of values for the benefit of our children and youth. By his/her very nature, the teacher is a transmitter, a messenger, a carrier. Our determination of what he has to transmit will depend on what we determine to be valuable for our children and youth. Every society has a value system of some kind. Indian society is rich in it. But what is the use of such a bank balance of values if it is not useful in solving our current social problems?”

[Original source: from a Chapter titled “An Outline Programmed of Value-Oriented Education and Relevant Pedagogical Suggestions”, (at <http://www.education.nic.in/cd50years/r/2Q/92/2Q920501.htm>) (link no longer active) (in paragraph 1) --part of an Internet document titled “Report of the Working Group to Review Teachers’ Training Programme (in the light of the need for value-orientation)” (Note: The Government of India commissioned the Working Group, which was active from 1981-1982.)]

[Additional Note: “The main body of the above mentioned report (was) compiled from a paper on “The Teacher and His Task” by Prof V. S. Jha and other papers written by Prof. Kireet Joshi which were presented to the Group and adopted unanimously for inclusion in the main body of the report.” (from “Introduction” to above mentioned ‘... Working Group...’ document, at <http://www.education.nic.in/cd50years/r/2Q/92/2Q920101.htm> (link no longer active), see last paragraph)]

[Current source: “Report of the Working Group to Review Teachers Training Programme in the Light of the Need for Value Orientation” by V. S. Jha, Member; Prof. V. Eswara Reddy, Member; J. J. Nanavatty, Member; Kireet Joshi, Member (1983) New Delhi, Ministry of Education and Culture Accessible at archive.org (at <https://archive.org/details/dli.csl.2123/page/n35/mode/2up>) (p. 33, paragraph 1)]

10) Little pitchers have big ears.

“That’s how strong I am... I can even break the whole day care.”

“I can, right?”

“You can, but it’s not nice.”

"That's the bridge, and you gotta pretend the water goes under there. "

[While working on an earlier “arrangement of quotations” (“Developing a Tao Compass”--80 pages, 1986), I visited a day care center (ages 2-5) for one month, and made a 5 page collection of what the “little pitchers” there had on their minds. (at <https://nebula.wsimg.com/002e47a3704ff812f0f90eeaf2d22cc8?AccessKeyId=238D35F9602A8D5BA6F3&disposition=0&alloworigin=1>)]

11) Excerpts from a paper “The Relation of Moral and Religious Education” by Father Michael Maher, S.J., which was presented at the First International Moral Education Congress, University of London, (1908)

“By moral education I understand the whole process of aiding and directing the development of the child as a moral being. Its outcome should be the creation, in the individual mind, of an elevating and sustaining moral ideal, and the formation of strong moral character. It includes instruction of the intellect in the knowledge of our duty and its grounds, the cultivation of moral conscience and moral sensibility in the easy discernment of duty, and the building up of habits of virtue, or permanent dispositions in the will to act according to the dictates of moral reason. (p. 177-178)

“Religion itself I take to mean a body of truths or beliefs respecting God and our relations to Him; and flowing from these a collection of duties which have God for their primary object. These are, in the main, functions of the will in the form of exercises of internal and external worship. Out of these beliefs and volitions there emerge feelings and emotions, which we call religious sentiments. They include love, gratitude, sorrow, joy, fear, hope, awe, veneration and allied forms of consciousness.” (p. 178)

“Some writers seem to deprecate the appeal to the ethical sanctions of reward or punishment for observance or violation of duty presented to us in the Christian creed. But as long as human nature--and especially human nature as exhibited in youth--remains what it is, the reasonable use of these motives, after the example of the great ethical Teacher Himself, will be approved by the practical experience of the vast majority of those engaged in the actual work of moral education. Furthermore, whatever aid can be derived from the religious sentiments and feelings awakened by Divine worship, and from the spiritual yearnings, aspirations and impulses of the soul, which are both fostered and satisfied by the exercises of religion, is assuredly, even on the merest psychological grounds, a most valuable reinforcement in the early struggles for the formation of virtuous habits and the difficult conquests of the passions of youth.” (p. 179)

“To sum up in brief: I hold that religious instruction provides the best vehicle for introducing to the intelligence of the young the most important part of the moral truths and principles at present generally accepted as the basis of our social life. Further, I would contend that the mental attitude fostered by the exercises of religion and the ideas and feelings associated with religious topics, when properly handled, are best suited for the fruitful apprehension of ethical truths. I would argue also that the great fundamental conceptions of natural religion--the notions of God and His relations to man--provide a rational and intelligible foundation and an adequate authority and sanction of duty and self-sacrifice,

and I would content that such an intelligible foundation and adequate authority are of specially vital importance when inculcating moral precepts and establishing moral habits which often come into conflict with the passions and inclinations of our lower nature. Further I would urge that the human life and character of Christ, as revealed in the Gospel story, offers us in definite and concrete form the most attractive and potent as well as incomparably the most perfect ethical ideal that can be held up before the mind of the young. Finally, I would maintain that the more thoroughly ethical conduct can be animated by religious motive, and the more efficaciously ethical instruction can be strengthened by the authority which religion carries to the soul of the child, the stronger and more enduring will be the adhesion to moral principle in the future hour of trial and temptation.” (p. 180)

[Excerpts from a paper “The Relation of Moral and Religious Education” by Father Michael Maher, S.J., which was presented at the First International Moral Education Congress, University of London, 1908 (Note: a complete collection of the papers presented at this Moral Education Congress is in the public domain, and at Google Books-- at https://www.google.com/books/edition/Papers_on_Moral_Education/xoBCAAAAIAAJ?hl=en&gbpv=1&bsq=First%20International%20Moral%20Education%20Congress,%20University%20of%20London,%201908 ; and this particular paper by Father Maher can be found by a key phrase search.)]

12) “The meaning of life, therefore, of its purposes and values as understood by the educator, primarily determines the nature of his work.”

Catholic Encyclopedia (online):

“The meaning of life, therefore, of its purposes and values as understood by the educator, primarily determines the nature of his work. Education aims at an ideal, and this in turn depends on the view that is taken of man and his destiny, of his relations to God, to his fellowmen, and to the physical world. The content of education is furnished by the previous acquisition of humankind in literature, art, and science, in moral, social, and religious principles. The inheritance, however, contains elements that differ greatly in value, both as mental possessions and as means of culture; hence a selection is necessary, and this must be guided largely by the educational ideal.”

[From the webpage for “Education” at the website of the Catholic Encyclopedia (at <https://www.newadvent.org/cathen/05295b.htm>) (paragraph 1)]

13) When Man is overwhelmed by the dark clouds of despair and the raging confusion of irrepressible desires, he too, has a compass....”

“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.”

[From “Sathya Sai Speaks” Discourses by Sri Sathya Sai Baba (1926-2011) Webpage for all the volumes in the “Sathya Sai Speaks” series is <http://www.ssbpt.info/english/sss.htm> ; Direct link to Volume 8 <http://www.ssbpt.info/english/sssvol08.html> (see Volume 8, Chapter 21, paragraph 1)]

[Note: this quotation also is included (several times) in "An Arrangement of Quotations from 'Sathya Sai Speaks' (Vol. 1-15)" (301 p., Sept., 1996--Feb., 1997) (at

<https://nebula.wsimg.com/707caa69bcd851bccbd13fc3e73dc1?AccessKeyId=238D35F9602A8D5BA6F3&disposition=0&alloworigin=1> by this writer (Stefan Pasti)--and that resource has a Table of Contents similar to this paper (five page Table of Contents at

<https://nebula.wsimg.com/e7e1f7849e79f71913a0fd255c7c0010?AccessKeyId=238D35F9602A8D5BA6F3&disposition=0&alloworigin=1>) The “Arrangement of Quotations” (and the 5 page Table of Contents) can also be accessed on the “Key Documents and Resources” webpage at The Community Peacebuilding and Cultural Sustainability (CPCS) Initiative website at <https://www.cpcsi.org/cpcs-initiative-summary-paper.html> (see #15)]

14) “How to find suitable teachers is, therefore, the really important question with which we are confronted....”

“How to find suitable teachers is, therefore, the really important question with which we are confronted. And I doubt whether they can be found--at least in sufficient numbers. They will have to be made; and how this is to be done is the real problem that faces those interested in moral education at the present time.” (p. 227-228)

[Excerpts from a paper “Systematic Moral Teaching” by Prof. J. S. Mackenzie, which was presented at the First International Moral Education Congress, University of London, 1908 (Note: a complete collection of the papers presented at this Moral Education Congress is in the public domain, and at Google Books--at https://www.google.com/books/edition/Papers_on_Moral_Education/xoBCAAAAIAAJ?hl=en&gbpv=1&bsq=First%20International%20Moral%20Education%20Congress,%20University%20of%20London,%201908 ; and this particular paper by Prof. J. S. Mackenzie can be found by a key phrase search.]

E. It is in such a context--in the most complex cultural landscapes ever created, and at a time of unprecedented challenges--that there is a profound need for not just schools—but all citizens—to recognize their social responsibilities....

1) This writer believes that--at this critical point in the evolution of life on Planet Earth--we will need to make unprecedented progress towards resolving these timeless challenges of human nature—*even though these challenges have become so common that many of us accept such as inevitable.*

--It has taken a lot of being confused about the cardinal directions on our “moral compasses” to get where we are (global warming can be understood as the cumulative result of many other unresolved issues which have, by themselves, become critical challenges)--and many of the unresolved issues contributing to global warming have been around since the dawn of civilization (Ex: cultures of violence, greed, corruption, and overindulgence).

And--if we have serious concerns about the nature and reliability of our “moral compasses” at this critical time, *and let those serious concerns go unresolved*, we may not be able to make enough of a transition away from capital misallocations which “deplete the world’s stock of natural wealth”¹ and “allow businesses to run up significant, largely unaccounted for, and unchecked social and environmental externalities”¹... and thus,

- a) we may lose significant traction and critical momentum on challenges for which there is an urgent need to reach positive tipping points
- b) we may do more to create widespread cynicism, rather than confidence, about our collective capacity to resolve the unprecedented challenges we face.

This writer believes that--at this critical point in the evolution of life on Planet Earth--we will need to make unprecedented progress towards resolving these timeless challenges of human nature—*even though these challenges have become so common that many of us accept such as inevitable.* Thus, we are in uncharted territory, for there is no culture or association of societies that ever existed on planet Earth which has had to resolve the kind of challenges the next few generations of people will have to resolve.

[Footnote 1. (above)--for context of these two quotes, and the source reference, see p. 17-18]

It is in such a context--in the most complex cultural landscapes ever created, and at a time of unprecedented challenges--that there is a profound need for not just schools--but all citizens--to recognize their social responsibilities to identify, preserve, and reinforce only those cultural “building blocks” which contribute to achieving positive tipping points on critical challenges, reinforce the foundations for “the good life”, and “make for a better future society”.

And it is in such a context, that (this writer believes) it is thus now essential for us to access the storehouses of wisdom and compassion which have accumulated over the many centuries of human experience, and which have been confirmed again and again as essential to individual well-being and social harmony by the saints, sages, spiritual leaders, and sincere practitioners of all religious, spiritual, and moral traditions...

... as there is a profound and critical need for as many people as possible to be exercising as much love, understanding, and forgiveness as possible--in as many ways as possible.

2) ... at no other time in the course of history has so many people had access to so much in the way of time-tested guidelines, inspiring role models, and service-oriented initiatives relevant to peace, prosperity, and happiness for all humanity.

Fortunately, as a result of the unprecedented opportunities created by the expansion of the Internet, we have now arrived at a very auspicious moment in time... for at no other time in the course of history has so many people had access to so much in the way of time-tested guidelines, inspiring role models, and service-oriented initiatives relevant to peace, prosperity, and happiness for all humanity.

However, we need collaborative problem solving and community education initiatives which carefully and continuously (through ongoing monitoring) seek to achieve a meaningful balance between the urgent need to “frontload” specific issue-related agendas, and an even more serious priority: for all of us to understand--

--how much we need to be learning to so that we can be part of the solutions

--how much we need to be making best use of the knowledge and skills each one of us has

--how much we need to be on the same side, helping each other

--that—wisely directed—the investments of time, energy, and money (the “votes”) each of us make in our everyday circumstances can result in countless ways of earning a living which *contribute to—rather than impair—*the peacebuilding, community revitalization, and ecological sustainability efforts necessary to reach positive tipping points on many critical challenges at the same time.

3) Through workshops and other informal education (and associated local learning networks), citizens can gain greater awareness of how... all the investments of time, energy, and money (the “votes”) each of us make in our everyday circumstances become the larger economy.

This writer believes that creating the knowledge base and skill sets necessary to resolve the challenges of our times will require encouraging as much formal and informal meetings as possible between neighbors--and people living in the same local community. Creating many Neighborhood Learning Centers can provide places, in local neighborhoods, for discussion, information sharing, mutual support and encouragement, fellowship and friendship--so that the exchanging of information and resources will also include the building of a close-knit community of people, with a healthy appreciation for each other’s strengths.

Through workshops and other informal education (and associated local learning networks), citizens can gain greater awareness of how all the “little events” in everyday community life have a positive and cumulative effect on the challenges-solutions-investment-training-employment sequence... and thus how all the investments of time, energy, and money (the “votes”) each of us make in our everyday circumstances become the larger economy. Citizens from every variety of circumstances can learn how to wisely cast such “votes”. Wisely directed, such “votes” can result in countless ways of earning a living which contribute to the peacebuilding, community revitalization, and ecological sustainability efforts necessary to drastically reduce Greenhouse Gas Emissions, and minimize other related challenges. As the ancient Chinese proverb says: “Many hands make much work light.”

4) 178 Related Field of Activity

This writer has identified 178 fields of activity related to the collaborative problem solving, community peacebuilding, ecological sustainability, and community education efforts he advocates most strongly for to resolve the convergence of unprecedented challenges which now exists. Crowdsourcing efforts would surely result in a much longer list; however this list should be sufficient to suggest that we--collectively--have the knowledge and wisdom to create, support, and sustain communities which can keep global warming below 1.5°C (2.7°F); minimize resource requirements; maintain ecological sustainability; maintain a high level of compassion for fellow human beings--and which represent what a significant majority of community residents surveyed would describe as a high quality of life.

Do We Have Moral Compasses We Can Rely On?

Below are 65 fields of activity which this writer will highlight, as a sample of what is included in the list of 178 Related Fields of Activity this writer has identified--

[Note: the complete list is in the 6 page document "178 Related Fields of Activity" (at

<http://nebula.wsimg.com/4a3195f803d891afa6c1981a65670b38?AccessKeyId=238D35F9602A8D5BA6F3&disposition=0&alloworigin=1>)]

Agrarian Reform; Alleviating Hunger; Appropriate Technology; Biological Sewage Treatment Systems; Circular Economy; Civic Responsibility; Community Education; Community Land Trusts; Community Peacebuilding; Community Supported Agriculture; Community Supported Manufacturing; Community Visioning Initiatives; Compassion; Cooperation; Divest/Invest; Ecological Sustainability; Ecovillages; Emergency Humanitarian Aid; Employment Training (esp. Transitional); Energy Descent Pathways; Energy Returned On Energy Invested (EROEI); Energy Storage Systems; Faith; Food Security; Forgiveness; Gender Equality; Hard Work; Holistic Education; Holistic Health Care; Honesty; Hydropower; Inspiring Role Models; Interfaith Peace Vigils; Justice; Lifelong Education; Local Currency; Mentoring; Microgrids; Neighbor to Neighbor Community Education (in newspapers/newsletters); Neighborhood Learning Centers; Permaculture; Plant-Based Protein; Prayer; Questionnaires/Surveys; Relocalization; Renewable Energy; Right Livelihood; Small-Scale Farming; Socially Engaged Spirituality; Socially Responsible Investing; Solar Energy; Spiritual Discipline/Spiritual Practice; Spiritual Diversity (Religious Pluralism); Spiritual Friendships; Sympathetic Resonance; Transition Towns; Village Industries/Cottage Industries; Village Support Centers; Violence Prevention; Voluntary Simplicity; Wind Power; Wisdom; Zero Waste

5) Question: Identifying the Most Important Elements of Community Life and Cultural Traditions

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, teachers, mentors, elders, and the everyday influences of community life and cultural traditions.

Please "brainstorm" on the subject of what would best fill in the blank in the above statement. Then choose 5-10 items from the "brainstormed list", and rank them according to most important, and next most important, using 1 as most important, 2 as next most important, and so on.

F. Countless opportunities for all of us--ourselves, our neighbors and our fellow citizens--to become part of a system of mutual support and encouragement in our local communities

As this paper highlights, we have a profound need for reconciliation between people in communities around the world, so that we can work together on numerous unprecedented challenges.

Unfortunately, the likelihood of such reconciliation is often negatively distorted by the definitions of news in mass media platforms, and thus often dismissed as beyond our capacity to achieve. And yet... there are many people who have had experiences of reconciliation with people who they once cared about very deeply, but then became separated by beliefs and livelihoods which seemed too different to ever resolve. And (this writer believes), most readers will agree that one of the most profound insights which can come from such reconciliations is that "beneath the multitude of identities, (and) the differences in culture, language, ritual, and beliefs, we all desire contact that comes in forms of love, community, respect, dignity, recognition, and acknowledgment." [Quote from article "Engaging People, Enhancing Humanity" by The Contact Project (at <https://medium.com/engaging-people-enhancing-humanity/were-building-human-capacity-for-global-change-6e9e39040b3>) (paragraph 1)]

In this time of unprecedented challenges--and especially in the context of collaborative problem solving on a scale most of us have never known before--there are going to be countless opportunities for reconciliation. There are going to be countless opportunities for arriving at a new appreciation of the personal qualities, skills, and beliefs of our neighbors and fellow citizens--personal qualities, skills, and beliefs which we once might have thought were only being directed towards outcomes with serious negative consequences for many people. And there are going to be countless opportunities for all of us--ourselves, our neighbors and our fellow citizens--to become part of a system of mutual support and encouragement in our local communities, as we respond to multiple, unprecedented challenges.

"... there are truths which none can be free to ignore, if one is to have that wisdom through which life can become useful. These are the truths concerning the structures of the good life and concerning the factual conditions by which it may be achieved...."

[From "General Education in a Free Society" (The Harvard Committee, 1945)] (accessible in "American Higher Education Transformed 1940-2005: Documenting the National Discourse" Ed. Wilson Smith and Thomas Bender (accessible at google books through key word search, or see p. 20))

"In the beginning, the Adored and the Adorer are distant and different; but, as the Sadhana (spiritual discipline) becomes more confirmed and consolidated, they co-mingle and become more and more composite."

[Note: From "[An Arrangement of Quotations from 'Sathya Sai Speaks' \(Vol. 1-15\)](#)" (301 p., September, 1996--February, 1997, 2006) (with long Table of Contents similar to this paper) by this writer (Stefan Pasti) (p. 26)]

Appendix 1

“...who cried piteously at being unable to assist....”

from “The Christmas Carol” by Charles Dickens (originally published in 1843)
(in version at <http://read.gov/books/christmas-carol.html> (p. 31-32)]

“When they were within two paces of each other, Marley's Ghost held up its hand, warning him to come no nearer. Scrooge stopped.

“Not so much in obedience, as in surprise and fear: for on the raising of the hand, he became sensible of confused noises in the air; incoherent sounds of lamentation and regret; wailings inexpressibly sorrowful and self-accusatory. The spectre, after listening for a moment, joined in the mournful dirge; and floated out upon the bleak, dark night.

“Scrooge followed to the window: desperate in his curiosity. He looked out.

“The air was filled with phantoms, wandering hither and thither in restless haste, and moaning as they went. Every one of them wore chains like Marley's Ghost; some few (they might be guilty governments) were linked together; none were free. Many had been personally known to Scrooge in their lives. He had been quite familiar with one old ghost, in a white waistcoat, with a monstrous iron safe attached to its ankle, who cried piteously at being unable to assist a wretched woman with an infant, whom it saw below, upon a door-step. *The misery with them all was, clearly, that they sought to interfere, for good, in human matters, and had lost the power for ever.*”

Appendix 2



THE MILLENNIUM WORLD PEACE SUMMIT OF RELIGIOUS AND SPIRITUAL LEADERS

Commitment to Global Peace

Humanity stands at a critical juncture in history, one that calls for strong moral and spiritual leadership to help set a new direction for society. We, as religious and spiritual leaders, recognize our special responsibility for the well-being of the human family and peace on earth.

Whereas the United Nations and the religions of the world have a common concern for human dignity, justice and peace;

Whereas we accept that men and women are equal partners in all aspects of life and children are the hope of the future;

Whereas religions have contributed to the peace of the world but have also been used to create division and fuel hostilities;

Whereas our world is plagued by violence, war and destruction, which are sometimes perpetrated in the name of religion;

Whereas armed conflict is a dire tragedy for the human lives ruined and lost, for the larger living world, and for the future of our religious and spiritual traditions;

Whereas no individual, group or nation can any longer live as an isolated microcosm in our interdependent world, but rather all must realize that our every action has an impact on others and the emerging global community;

Whereas in an interdependent world peace requires agreement on fundamental ethical values;

Whereas there can be no real peace until all groups and communities acknowledge the cultural and religious diversity of the human family in a spirit of mutual respect and understanding;

Whereas building peace requires an attitude of reverence for life, freedom and justice, the eradication of poverty, and the protection of the environment for present and future generations;

Whereas a true culture of peace must be founded upon the cultivation of the inner dimension of peace, which is the heritage of the religious and spiritual traditions;

Whereas religious and spiritual traditions are a core source of the realization of a better life for the human family and all life on Earth.

In light of the above, and with a view to discharging our duty to the human family, we declare our commitment and determination:

1. To collaborate with the United Nations and all men and women of goodwill locally, regionally and globally in the pursuit of peace in all its dimensions;;
2. To lead humanity by word and deed in a renewed commitment to ethical and spiritual values, which include a deep sense of respect for all life and for each person's inherent dignity and right to live in a world free of violence
3. To manage and resolve nonviolently the conflicts generated by religious and ethnic differences, and to condemn all violence committed in the name of religion while seeking to remove the roots of the violence;
4. To appeal to all religious communities and ethnic and national groups to respect the right to freedom of religion, to seek reconciliation, and to engage in mutual forgiveness and healing;
5. To awaken in all individuals and communities a sense of shared responsibility for the well-being of the human family as a whole and a recognition that all human beings regardless of religion, race, gender and ethnic origin have the right to education, health care, and an opportunity to achieve a secure and sustainable livelihood;
6. To promote the equitable distribution of wealth within nations and among nations, eradicating poverty and reversing the current trend toward a widening gap between rich and poor;
7. To educate our communities about the urgent need to care for the earth's ecological systems and all forms of life and to support efforts to make environmental protection and restoration integral to all development planning and activity;
8. To develop and promote a global reforestation campaign as a concrete and practical means for environmental restoration, calling upon others to join us in regional tree planting programs;
9. To join with the United Nations in the call for all nation states to work for the universal abolition of nuclear weapons and other weapons of mass destruction for the safety and security of life on this planet;
10. To combat those commercial practices and applications of technology that degrade the environment and the quality of human life;
11. To practice and promote in our communities the values of the inner dimension of peace, including especially study, prayer, meditation, a sense of the sacred, humility, love, compassion, tolerance and a spirit of service, which are fundamental to the creation of a peaceful society.

We, as religious and spiritual leaders, pledge our commitment to work together to promote the inner and outer conditions that foster peace and the nonviolent management and resolution of conflict. We appeal to the followers of all religious traditions and to the human community as a whole to cooperate in building peaceful societies, to seek mutual understanding through dialogue where there are differences, to refrain from violence, to practice compassion, and to uphold the dignity of all life.

Bawa Jain, Secretary General of the Millennium World Peace Summit of Religious and Spiritual Leaders

[From the webpage "About the Summit" at the website of The world Council of Religious Leaders (at http://www.millenniumpeacesummit.org/mwps_about.html) (see Section "Related Documents", where this document can be downloaded)]

Appendix 3

From the Discourses of Sri Sathya Sai Baba (1926-2011)

1) "... if only you love and revere the heritage which is yours."

a) "(In the past) most of the learning was by listening to the preceptor. Not only in the seats of higher learning, but even the smith, the artisan, the artist, the carpenter, the farmer, the potter, the writer, the musician, the sculptor--all learnt from the elders by the silent process of lovingly listening and reverentially watching, not through the process of poring over books. Those days can be revived, if only you love and revere the heritage which is yours." (p. 60)

b) "Long before the birth of this generation a beneficent code of morals and a precious collection of guidelines for the realm of the spirit had been preserved and handed down as heritage through the efforts of selfless seers and sages. Each generation draws inspiration and knowledge from the previous ones, especially from the pathfinders, the pioneers, and bridge-builders in the regions of ethics, law, mysticism, sociology, and religion. These persons promote concord and progress and remove social conflict; their footprints mark out the lines of individual and social development.... They have handed down a precious quantity of knowledge about nature, about consciousness, and also about the means and methods of testing and enlarging that knowledge. But today man is neglecting this heritage and even discarding it as invalid and superfluous.... Man has to preserve this knowledge and foster it, revere it, and use it." (p. 55)

c) "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." (p. 69)

2) The Guru

a) "Of course, at first sight, the Divinity inherent in all beings and things will not be clear to the vision. How can anyone read the sign G as jee, without being told by someone who knows and accepts that statement in good faith? Then, he reaches the stage when he can read G O D as jeeodee. But, what persuades him to read it as God, and not as jeeodee? Again, it is the Guru, whom you trust and who

knows these things well. And, how do we know that the sound God represents for all the inscrutable all-pervasive Intelligence that pervades the atom and the star? Again, it is the Guru who has taught us so to accept it.” (p. 74)

b) “The Guru sows the seeds of virtue, of wisdom, and of faith in the heart of the pupil. He is, therefore, Brahma, of the nature of the Creator. He is like the farmer who plants (seedlings) in the well-prepared soil of his field.”

“But, the farmer does not sit with folded hands there-after. He takes incessant care to see that the saplings grow vigorously and well, and he is vigilant to water the growing crops and feed them with fertilizers at the appropriate stages of growth. This is the role of Vishnu so far as education and the educator are concerned. The Guru cannot sit back and silently watch the fate of the pupil, after the first few lessons. He has to guide the pupil at every step, foster and encourage good habits, sound reasoning and valid emotions, and act as Vishnu, the second of the Trinity.”

“The Guru has also the duty cast on him, to watch every step of the pupil, and warn him off, when he takes false steps, or develops a bad habit, or entertains a deleterious doubt. Like the farmer, who has to be vigilant against the growth of weeds or the upsurge of pests, the Guru too must be ever alert to destroy the pests of vice and the weeds of sloth and unsteadiness. (Thus he also acts in the role of Maheswara.)” (p. 73-74)

c) “You must love and revere your teachers. That is the first step in the discipline which leads to a virtuous character. They have your progress as the spur in their work; they have a lot of patience to put up with your errors; they take your hand in theirs and lead you gently on into the wonderland of knowledge about the world and its Creator.” (p. 60)

d) “The Guru is needed when you have the Guri (Goal). If you do not have that urge, what can the Teacher do?... Inner prompting to see the Light must send the aspirant to the Teacher or must draw the Teacher to wherever he is.” (p. 72)

3) “When you are earnest about it, the Lord Himself will guide you....”

a) “God has a million names, Sages and Saints have seen Him in a million forms; they have seen Him with eyes closed and eyes open. They have extolled Him in all the languages and dialects of man; but yet, His Glory is not exhausted.” (p. 53)

- b) "God is not to be spoken of as coming down or going up, since He is every where, available for your becoming aware of Him, through beauty, truth, goodness, strength, love or any one of the divine attributes." (p. 53)
- c) "My Grace is ever with you; it is not something that is given or taken; it is given always and accepted by the Consciousness that is aware of its significance." (p. 257)
- d) "... I have no geographical 'far' and 'near'; My 'far' and 'near' are not calculated in miles or yards. Nearness to Me is not acquired by physical nearness. You may be by My side--yet, far; you may be far, far away--yet, very near and dear. However far you are, if you but stick to Sathya (Truth), Dharma (Virtue), Santhi (Peace) and Prema (Love), you are close to Me and I am close to you." (p. 165)
- e) "Along the lines already familiar to you, continue the worship of the God of your choice; then you will find, that you are coming nearer and nearer to Me; for, all Names are Mine and all Forms are Mine. There is no need to change, after you have seen Me and heard Me." (p. 86)
- f) "If you sincerely, unhesitatingly, constantly, gladly, lovingly, offer all your skill and strength to the service of others, God will melt and move and manifest Himself in you, before you, with spontaneous Grace." (p. 199)
- g) "The effectiveness lies not in the Mantra or in the Name and Form it is centered upon. It lies in the heart, in the yearning, in the thirst. God will assume the form and answer to the Name for which you thirst! That is the measure of His Grace." (p. 86)
- h) "These are not distant regions that have to be reached by tortuous travel; they are springs of tranquillity that are in your own heart." (p. 83)
- i) "When you are earnest about it, the Lord Himself will guide you, either from within or from without, through some one He will send, or through illumination from within." (p. 72)
- j) "In the beginning, the Adored and the Adorer are distant and different; but, as the Sadhana becomes more confirmed and consolidated, they co-mingle and become more and more composite." (p. 26)

[The above quotes are referenced to page numbers in the document ["An Arrangement of Quotations from 'Sathya Sai Speaks' \(Vol. 1-15\)"](#) (301 pages; September, 1996--February, 1997 and 2006) by Stefan Pasti (also accessible as #15 at the webpage "Key Documents and Resources" at <https://www.cpcsi.org/cpcs-initiative-summary-paper.html>)]