An Introduction to the "Brainstorming 50% by 2030" Campaign

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(www.cpcsi.org)

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Contents (with bookmarks)

Executive Summary

We are at one of the most critical crossroads in the history of life on Planet Earth. 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.

There has been much analysis, and many projections made, about how much time we have to achieve a 50% reduction in Greenhouse Gases to limit global warming to 1.5^{o}C $(2.7^{o}$F) (before negative feedback loops carry us into very high risk global warming). This paper references a timeline created by this writer of warnings about global warming from 1988-2013; specific projections about how much we need to do by 2030, or by 2050 (eight projections from 2003 to 2019)[see Appendix I)]; the "IPCC Report on 1.5^{o}C" [and their recommendations to cut emissions 50% by 2030--see graph in Appendix III, B)]--and includes references to recent actions taken (Friday for Future marches and Climate Emergency declarations). Unfortunately, global carbon emissions are still rising [see Appendix II)]--and there continues to be well-documented, evidence-based reports showing that negative feedback loops are moving at speeds, and in patterns, which go beyond previous projections.

This "Brainstorming 50% by 2030" Campaign proposes to streamline to the frontlines of public discourse the best 5-10 page overviews of how we can achieve a 50% reduction in Greenhouse Gas Emissions by 2030--and thereby catalyze local Community Visioning Initiatives, and contribute significantly to maximizing stakeholder participation in solution-oriented activity. The kind of Community Visioning this

writer is referring to is also a form of peacebuilding, and is summarized by a list which includes: universities and colleges assisting with Community Visioning--and providing related curriculum, workshops, and teacher training, to support many Neighborhood Learning Centers; local newspapers making key contributions; local currency as compensation for volunteers; job fairs; and key contributions from local leaders of religious/spiritual traditions.

1000 time-intensive Community Visioning Initiatives, in communities around the world, would create:
--an exponential acceleration in solution-oriented investment
--an exponential acceleration in solution-oriented employment
--and an exponential acceleration in our collective capacity to overcome the challenges of our times.

The rest of the paper (from p. 11-27) is a very comprehensive and wide-ranging review of why this Campaign is needed, and why this writer is hopeful and optimistic--and includes:

1) we are only at the beginning of understanding how much the implementation of already known (and yet to be discovered) solutions--to all of the unprecedented challenges ahead--depends on understanding, and responding respectfully to, "a mix of economic, cultural and psychological barriers"

2) there are very real possibilities that our best efforts to achieve a 50% reduction in Greenhouse Gas Emissions by 2030, and resolve other numerous unprecedented challenges, could be crippled by cultures of violence, greed, corruption, cynicism, and overindulgence

3) an eight page compilation of observations and statistics (and references to well known risk assessments), which culminates with a picture of the present, the near future, and not so near future where our capacity to maintain social cohesion; the strength, depth, and substance of our spiritual wisdom; and our capacity to co-exist with the rarest, and most wonderful, form of creation, a living Planet--will be tested like never before

4) an eight page summary of why this writer is hopeful and optimistic, even though he feels he has significant clarity about how serious the unprecedented challenges ahead are. That summary includes:

a) We have our innate desire for hope; the seemingly inexhaustible capacity of human beings to innovate; the grit, determination, and perseverance pioneers in human history have had to somehow find; the wisdom and common sense which comes from having overcome many challenges in the past-- and our Faith (and Faith helps move belief from "it hardly seems possible" to "it must be possible", since Faith believes Love will prevail).

b) 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.

Why Do We Need to Achieve a 50% Reduction (or maybe more) in Greenhouse Gas Emissions by 2030?

(A) There has been much analysis, and many projections made [see eight projections in Appendix I)], about how much time we have to achieve a 50% reduction in Greenhouse Gases to limit global warming to 1.5^{o}C (2.7^{o}F) (before negative feedback loops carry us into very high risk global warming). However, it seems to this writer that the "The IPCC Special Report on Global Warming of 1.5°C" (Summary for Policymakers and Full Report included at link), released on October 8, 2018, has been the most comprehensive, and most carefully peer-reviewed, statement yet* [*see (C) in this section, below] on how soon and how urgently we need to act.

1) "According to #SR15 ("The IPCC Special Report on Global Warming of 1.5°C"), pathways with limited overshoot of 1.5°C require global net CO_2 emissions to decline by ~45% from 2010 levels by 2030 (40–60% interquartile), reaching net zero around 2050 (2045–2055 interquartile)…." [from Glen Peters tweet--complete tweet with graph also in Appendix III, B)].

2) The SR15 Report includes:
--"Limiting global warming to 1.5°C (2.7^{o}F) would require rapid, far-reaching and unprecedented changes in all aspects of society."
--"Every extra bit of warming matters, especially since warming of 1.5°C (2.7^{o}F) or higher increases the risk associated with long-lasting or irreversible changes, such as the loss of some ecosystems."

The article "We have 12 years to limit climate change catastrophe, warns UN" (October 8, 2018; Guardian) provides an overview (with details) of the IPCC 1.5^{o}C Report, and quotes from three of the authors of the report.

(B) The IPCC 1.5^{o}C Report, combined with an increasing sense of urgency on a wide range of issues, has resulted in many more people believing that we--collectively--need to respond with a much greater urgency than we might have thought, even a year ago.

[Re: "an increasing sense of urgency on a wide range of issues"--a list of "numerous unprecedented challenges which are also a part of the unprecedented cultural transformation which we need at this time" on p. 11 (below) is from Chapters 1 and 2 in in the Community Peacebuilding and Cultural Sustainability (CPCS) Initiative Summary Paper "Harvest Song" (78 pages; Nov.-Dec., 2018; 3.9 MB). (Chapters 3 and 4 in "Harvest Song" are a summary of some of the essential solutions needed (from this writers' point of view). Note: Building the CPCS Initiative (www.cpcsi.org) is a significant part of the contributions being made by this writer.]

1) Since January 1, 2019 there has been a spike in the number of local governments that have declared a Climate Emergency; so that as of April 25, 2019--

--"Over 450 local governments have declared a Climate Emergency and committed to action to drive down emissions at emergency speed."
--"Over 40 million people are represented by a local government that has declared a Climate Emergency."
[The above statistics are from "Climate Emergency Campaign" ("Emergency Declarations") webpage at the website of The Climate Mobilization.]

2) **Recently (March 15, 2019), students (mostly from middle schools and high schools) who**----

--explored the research readily available on the Internet
--could see that much of what we now take for granted (about ecosystems, social cohesion, and civilization itself) might be seriously at risk if we fail to limit global warming to $1.5^{o}C$ ($2.7^{o}F$)
--and who were possibly inspired by Greta Thunberg's (at age 15) school strikes--

> [the first student to do a school strike--because she realized her government (Sweden) needed to do far more than it was doing for her to have a future worth studying for (a future which included any secure foundations)]

> --and her speech to COP 24 (December 2-15, 2018 United Nations Climate Change Conference) participants--

[which included: "You say you love your children above all else, yet you are stealing their futures right before their very eyes" (i.e. "stealing" *by not stepping up action to the level which would match the scale and urgency scientists, non-profit organizations, businesses, mayors, activists, policymakers, etc. had been saying is needed.*)] [Note: Ms. Thunberg was, in her COP24 speech, likely referring to recent reports (including the IPCC $1.5^{o}C$ Report released two months before. However, this writer (in 2013) compiled a 28 item "Timeline of Reports, Articles, and other Educational Materials Warning About Global Warming" (1988-2013)--which underlines how long we have been aware that there is a need for urgency (the timeline includes excerpts from key documents). The timeline was a part of extensive research included in the CPCS Initiative document "Invitation Package for Possible Board of Advisors" (589 pages, 3.6MB; November, 2013)(timeline is on p. 273-301).]

----organized schools strikes worldwide on March 15, 2019. The photo and text accompanying a tweet by @StrikeClimate (Australia)[complete tweet also in Appendix III, C)], reports that those worldwide strikes included 1.5 million + strikers, and 2000 + strikes, in 100 + countries.

(C) Unfortunately, global carbon emissions are still rising [see Appendix II)]--and there continue to be well-documented, evidence-based reports showing that negative feedback loops are moving at speeds, and in patterns, which go beyond previous projections.

1) "Sharp and potentially devastating temperature rises of 3C to 5C in the Arctic are now inevitable even if the world succeeds in cutting greenhouse gas emissions in line with the Paris agreement, research has found." [from article "Sharp rise in Arctic temperatures now inevitable–UN" by Fiona Harvey (March 13, 2019) in the Guardian]

2) "Just last week, a new study revealed that thawing permafrost in Alaska appeared to be releasing 12 times more nitrous oxide than previously estimated." [from article (subtitle) "New science warns that melting ice and permafrost could set off feedback loops that make climate change worse" by Stephen Leahy (April 23, 2019) in the National Geographic]

3) "Countries should double their protected zones to 30 percent of the Earth's land area, and add 20 percent more as climate stabilization areas, for a total of 50 percent of all land kept in a natural state, scientists conclude." ("Notably, these are not meant to be 'no go' areas, but rather areas protected from resource extraction and land conversion. Sustainable uses would be permitted in all but the most sensitive areas.") "All of this needs to be done by 2030 to have a real hope of keeping climate change under the "danger zone" target of 2.7 degrees Fahrenheit (1.5 degrees Celsius) and to prevent the world's ecosystems from unravelling—according to an ambitious plan called the Global Deal for Nature."
[from article "Half of all land must be kept in a natural state to protect Earth" (subtitle--"New science says land conservation must double by 2030 to prevent dangerous warming and unravelling of ecosystems") by Stephen Leahy (April 19, 2019) in the National Geographic]

(D) There are two tweets (with graphs)(from the Twitter platform) which--for this writer--clearly illustrate where we are, and the urgency of making the "unprecedented changes in all aspects of society"--

1) by Eric Holthaus @EricHolthaus Nov 1 2018

"Your periodic reminder of the news story of the millennium: We have left the 10,000-year climate 'safe zone' that gave rise to human civilization." [complete tweet (with very helpful graph) also in Appendix III, A)]

2) and the tweet by Glen Peters @Peters_Glen Oct 12 2018

"According to #SR15 ("The IPCC Special Report on Global Warming of 1.5°C"), pathways with limited overshoot of 1.5°C require global net CO_2 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...."   [complete tweet (with very helpful graph) also in Appendix III, B)]

Unfortunately, one of the difficulties of limiting global warming to 1.5^{o}C (2.7^{o}F)(or less) is that there is an extremely long list of institutions and organizations [news sources, governments (international, national, local), think tanks, NGOs, etc.] who have civic responsibility and community service obligations to be responders to this Climate Emergency (and also to all other unprecedented challenges), but who are not moving with sufficient urgency (or not giving any attention at all/or even denying the problem exists) in response to what is, in fact, one of the most critical crossroads in the history of life on Planet Earth.

Lack of sufficient attention to the Climate Emergency, and to other unprecedented challenges (including the 6th Extinction)--*by not stepping up action to the level which would match the scale and urgency scientists, non-profit organizations, businesses, mayors, activists, policymakers, etc. have repeatedly been saying is needed*--

--reinforces the thinking of people--who have not explored much research on these matters--that there is no Climate Emergency
--creates a lack of confidence in such institutions
--contributes to the "they don't care, why should we" kind of cynicism which can cripple our best efforts at this critical time.

The Fridays for Future protests (involving mostly students whose future is seriously in doubt), and the Extinction Rebellion protests, have been a most sincere appeal to the "extremely long list of institutions and organizations [news sources, governments (international, national, local), think tanks, NGOs, etc.]" to "get moving".

This "Brainstorming 50% by 2030" Campaign recognizes the limitations of asking people <u>who are not serious about guiding public discourse during global emergencies </u>to "get moving"… and is an effort to open up many new channels for movement.

[Note: Considering even just the above observations--including already built-in levels of uncertainty relating to 1.5^{o}C (2.7^{o}F) analysis and projections, many new estimates relating to negative feedback loops, and ongoing re-calculations, this "Brainstorming 50% by 2030 Campaign" may need to be renamed "Brainstorming 75% by 2030" within a year. Even so (at least from this writer's point of view), the campaign proposed in this paper--of accumulating 5-10 page overviews to serve as needs assessments to catalyze local Community Visioning Initiatives--would remain highly relevant, and still potentially "game-changing" regarding reaching positive tipping points.]

How Does the "Brainstorming 50% by 2030" Campaign Work?

The "Brainstorming 50% by 2030" Campaign is based on brainstorming, "casting back", community visioning, citizen engagement, crowdsourcing, and other collaborative problem solving approaches involving a community of stakeholders, some known or unknown set of challenges--and either preconceived, or organically developed, goals.

[Note: And it cannot be said often enough that the community of stakeholders involved in decisions which could irreversibly damage the prospects of life on Planet Earth needs to include as many of the billions of people living now as possible--and needs to also consider the prospects of people, ecosystems, and other life forms not yet born.]

The "Brainstorming 50% by 2030" Campaign identifies institutions and organizations which are already contributing in trustworthy, verifiable, visible, and peer-evaluated ways to guiding public discourse towards achieving 1.5^{o}C (2.7^{o}F). The Campaign then asks them to provide a 5-10 page overview of how we will decrease emissions by 50% by 2030 (this writer has created a brief example with "A Look Back from 2030—How Did We Do It").

Yes, it's true--many of these 5-10 page overviews will have similarities. However, this Campaign believes that the accumulation of short-enough-for-many-people-to-read, evidence-based overviews by many of the most trusted institutions and organizations in the world--which are saturated with doable solutions (including solutions which can be put into practice by citizens everywhere)--can streamline many much needed solutions to the frontlines of public discourse.

Further: there are still three to eight decades of unprecedented cultural transformation ahead of us. So--although we may think we have most of the solutions we need already, there may be many blind spots in our thinking (for example: unpredictability about negative feedback loops--*and "Rather than an unresolved technical challenge it is increasingly accepted that we face a mix of economic, cultural and psychological barriers")* (for more thoughts on the latter concern, see p. 12-18*).*

In other words, we should be vigilant about keeping in mind that limiting global warming to 1.5^{o}C (2.7^{o}F) is a very, very complex challenge.

It is very likely that much will happen, both in a negative way, and in a positive way, which we cannot yet foresee.

Therefore, the "Brainstorming 50% by 2030" Campaign also makes an open call for papers to people from all varieties of educational backgrounds, economic circumstances, occupations, cultural backgrounds, and cultural world views--and asks them to submit a 5-10 page overview of how we will decrease emissions by

50% by 2030. (And the campaign will accept submissions even if they are written with a crayon on a piece of a paper bag… though the preferable form would be Word file/Pdf file by email, as translations can be more easily managed.)

We are at one of the most critical crossroads in the history of life on Planet Earth. We need to encourage as many people as possible to be thinking--and thinking to the point of brainstorming--about how we will decrease emissions by 50% by 2030. Anyone who has been a part of a Community Visioning exercise will understand that there are many ways and means which will help us achieve our goals which have not yet been brought up to the fore of public discussion. And even further: we--collectively--are far from having had significant public discussion on the full dimensions of the unprecedented challenges ahead (and solutions suggested) using the projections and analysis we already have. We need to discuss this matter thoroughly, even to the point of workshops and informal discussions--in Neighborhood Learning Centers-- in communities around the world. Then we will be coming closer to understanding how much we need to be learning to be a part of the solutions, and how much we need to be on the same side helping each other.

If this "Brainstorming 50% by 2030" Campaign is sufficiently supported (especially by universities and colleges--higher education), it will be a matter of recognized social responsibility—(as in the global disclosure system CDP has developed for investors, companies, cities, states and regions to manage their environmental impacts)—for organizations and institutions to provide their 5-10 page overview. And those who do not participate will be so noted, in a way similar to having a showing, or not having a showing, in the Princeton Review's "Top 50 Green Colleges" (press release for the 2018 listings).

Thus, news sources, and/or citizens everywhere, will have a quickly accumulating--and highly relevant to their future well-being--compilation of public statements to explore, discuss, learn from, and act on.

 Additionally, since this necessary cultural transformation needs to happen very quickly, news sources-- and "Brainstorming 50% by 2030" Campaign clearinghouse websites--will be able to provide timely updates of such overviews.

When 100-150 of these kinds of 5-10 page overviews have been accumulated, and vetted for factual accuracy, social responsibility, practicality and replicability, cost effectiveness, and etc., such a collection of overviews can function as a "needs assessment"--of the kind which precedes local Community Visioning Initiatives.

Having such a "needs assessment" will help leaders and organizers at the local community level illustrate the need for Community Visioning Initiatives, and for many supporting Neighborhood Learning Centers.

Community Visioning Initiatives: Critical for a Just and Peaceful (and Successful) Transition

Community Visioning Initiatives (CVIs) are series of community meetings designed to maximize citizen participation in identifying challenges, and in identifying solution-oriented activity. The more comprehensive Community Visioning Initiatives require steering committees; preliminary surveys or needs assessments; task forces; workshops; and collaboration between many organizations, government agencies, businesses, and educational institutions--and seek to build up consensus in the community for specific goals and action plans by encouraging a high level of participation by all residents.

For the purposes of this introduction to the "Brainstorming 50% by 2030" Campaign, the kind of Community Visioning this writer is referring to is summarized by the list below--

[Note: Keep in mind that the outline of a Community Visioning process provided below is brief, compared to the overview provided on p. 64-70 in the Community Peacebuilding and Cultural Sustainability (CPCS) Initiative Summary Paper "Harvest Song"--and, that this list and p. 64-70 represent only this writers' view of a comprehensive and effective Community Visioning process. (i.e. Once the need for unprecedented forms of collaborative problem solving and community education become more commonly accepted; once the natural creativity and capacity for innovation which we human beings have shown ourselves capable of becomes more focused on designing collaborative problem solving and community education models; and once Community Visioning Initiatives are implemented on a scale which matches the urgency of the times---there will surely be numerous examples of Community Visioning which prove to be comprehensive and effective.)]

(A)   Universities and colleges assisting with Community Visioning--and providing related curriculum, workshops, and teacher training, to support many Neighborhood Learning Centers (Example Community Visioning--the 13 minute documentary "Chattanooga: A Community with a Vision"). [The "Chattanooga: A Community with a Vision" video includes many interviews and how-to details, and documents two very successful Community Visioning Initiatives organized by the non-profit organization Chattanooga Venture (Chattanooga, Tennessee USA)--one in 1984, and a follow-up in 1993. The 1984 Chattanooga Community Visioning Project ("Vision 2000") attracted more than 1,700 participants, and produced 40 community goals--which resulted in the implementation of 223 projects and programs, and a total financial investment of 793 million dollars.]

[Note: Universities and colleges--which are already far advanced in recognizing and implementing climate change solutions--will be natural lead organizations for building the partnerships necessary to carry out Community Visioning Initiatives in their local community (or, at least, for the first "wave" of Community Visioning Initiatives). If this collaborative problem solving and community education approach accomplishes the desired results, local communities and regions without colleges will surely find a way to replicate the process.]

(B) Many Neighborhood Learning Centers providing support for Community Visioning Initiatives; and providing places, in local neighborhoods, for discussion, information sharing, mutual support and encouragement, fellowship and friendship--so that the exchanging of information and resources also includes the building of close-knit communities of people with a healthy appreciation for each other's strengths

(C) Local Newspapers reporting on--

1) preliminary surveys of 150 key local leaders from a variety of fields of activity—(identifying challenges and solutions)[surveys initiated with the support of the 100-150 overviews (above) by organizations and institutions (and possibly other submitters) guiding public discourse towards achieving 1.5^{o}C (2.7^{o}F)]—the results of which would inform priorities for Neighborhood Learning Centers workshops
2) the different stages of the Community Visioning process [preliminary surveys; assembling a steering committee; planning and coordination with a variety of local leaders; brainstorming meetings identifying challenges; workshops prioritizing the challenges; brainstorming meetings identifying solutions; workshops prioritizing the solutions; providing access to priority solutions and action plans in a large meeting center (so that citizens can mark preferences and decide where they will participate)]
3) the countless workshops, and other informal learning, at Neighborhood Learning Centers
4) the job fairs at the end of the Community Visioning process

(E) Residents (especially those who unemployed) who volunteer time and energy to assist with Community Visioning and Neighborhood Learning Centers--and to advance resulting action plans-- receiving, as compensation, local currency (which, because it can only be spent in local community business, helps support the local economy)

(F) The job fairs at the end of the Community Visioning Initiative process, which 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.

(G) Local leaders of religious/spiritual traditions stepping up on every frontline possible to help people understand the urgent need to--
1) sacrifice personal desires for the greater good
2) choose forgiveness, and reconciliation--*and abstaining from violent conflict resolution*--as a way of bringing cycles of violence to an end and
3) create community life and cultural traditions which "… bring to the fore how many good people there are, how many ways there are to do good, and how much happiness comes to those who extend help, as well as to those who receive it".

Many Colleges and Universities assisting with carrying out local Community Visioning Initiatives
+ many supporting Neighborhood Learning Centers
= an exponential acceleration in solution-oriented activity.

1000 time-intensive Community Visioning Initiatives, in communities around the world, would create—
--an exponential acceleration in solution-oriented investment
--an exponential acceleration in solution-oriented employment and
--an exponential acceleration in our collective capacity to overcome the challenges of our times.

Further Comments on Why This "Brainstorming 50% by 2030" Campaign is Needed

There are many well developed approaches to achieving a 50% reduction in Greenhouse Gas Emissions by 2030 (or achieving 100% renewable energy sources by 2050)--by many very qualified coalitions of organizations--which are now accessible to be read and discussed in public discourse [five examples: "The IPCC Special Report on Global Warming of 1.5°C"; "Project Drawdown: 100 Solutions to Reverse Global Warming"; Leonardo DiCaprio Foundation's "One Earth Climate Model"; Zero Carbon Britain's "Raising Ambition: Zero Carbon Scenarios From Across the Globe" (a Centre for Alternative Technology project); and "The Solutions Project" (see also p. 50-52 of "Harvest Song" (next link below)].

However—

(A) We need to understand the full dimensions of the unprecedented cultural transformation which we must achieve. And it must be clear and well understood that the work ahead of us is not only about achieving 100% renewable energy--and not only about achieving a 100% carbon neutral economy.

1) There are numerous unprecedented challenges which are also a part of the unprecedented cultural transformation which we need at this time--

(Examples: Cultures of Violence, Greed, Corruption, Cynicism, and Overindulgence; Global Debt; Global Inequities and the Cycle of Malnutrition, Disease, and Death; 6th Extinction Event; Gender Equality; More Health Care and Education Accessibility; Assimilating Accelerating Migration and Displacement; Improving Water Access and Sanitation; Decreasing Meat and Dairy Emissions; Limiting Deforestation; Eliminating Cement Emissions (with substitutes?); More Equitable and Circular Food Systems (including Significantly Reducing Food Waste); Protection Against Floods at Chemical Sites; Creating Acceptable Radioactive Waste Disposal; Significantly Improved Solid Waste Management (especially efforts approaching Zero Waste); Ocean Health Management; Reducing Plastic Pollution; Reducing Cyber Threats; Increasing Media Literacy)

[The above examples are supported by substantial evidence in the Community Peacebuilding and Cultural Sustainability (CPCS) Initiative (which this writer is building) Summary Paper "Harvest Song" (78 pages; 3.9 MB; November-December, 2018).]

2) While some of the Green New Deals proposed (detailed overview of proposed U.S. Green New Deal provided by Wikipedia) for government interventions focus on some of the other unprecedented challenges besides achieving 100% renewable energy (or achieving a 100% carbon neutral economy), there is now so much information to assimilate that it is difficult to sort out what are the most important pathways for citizens everywhere to invest their time, energy, and money (their "votes").

In other words, which--

from among the numerous unprecedented challenges listed above; the 100 Solutions described by Project Drawdown; the direct action approaches of Divest Invest, Climate Mobilization, Fridays for Future school striking, Extinction Rebellion; political campaigns to change the people who are in control of governance platforms; etc. and etc.

--best represent where and how citizens, in the everyday circumstances of local community life, can concentrate their "votes" of time, energy, and money to significantly mitigate and remedy unprecedented challenges on the scale of a planetary emergency? True… all of the above is clearly a valid answer, but still… we are behind the curve, and we need more focus than that!

> This writer believes we need anyone anywhere to be able to examine, learn,
> and then *know* what their own personal best action plan efforts will look like.

3) There is much that can go wrong with policies which either place the burden of transition on the poor and disadvantaged; on people who did little to contribute to Greenhouse Gas Emissions--or with policies which place the burden of transition on people who have had no opportunity to contribute to the decision making process.

(B) We need collaborative problem solving on a scale most of us have never known before. Which means a significant majority of the (approximately) 7.7 billion people now living on Planet Earth need to be at least close to being "on the same page" about where we are, where we are going, and how we are going to get there.

However--

1) We are only at the beginning of understanding how much the implementation of already known (and yet to be discovered) solutions--to all of the unprecedented challenges ahead--depends on understanding, and responding respectfully to, "a mix of economic, cultural and psychological barriers."

a) "Whether the roadmaps are implemented rapidly, however, depends on social and political factors." [from "100% Clean and Renewable Wind, Water, and Sunlight All-Sector Energy Roadmaps for 139 Countries of the World" Mark Z. Jacobson (Stanford University, CA) et al. in Joule 1 (energy journal) (p. 108-121)(quote on p. 110) September 6, 2017 (The Solutions Project)]
b) *"Changing how billions of people live on Planet Earth is a very special kind of problem, as the forces that shape our lives exist on many different levels. Rather than an unresolved technical challenge, it is increasingly accepted that we face a mix of economic, cultural and psychological barriers."* [from the Executive Summary of Zero Carbon Britain's "Raising Ambition: Zero Carbon Scenarios from Around the World" (2018)(see p. 9)]

2) We live in the most complex cultural landscapes in the history of life 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--and other educational institutions--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. [Ironically, the reverse is also true: the innovations referred to above can, at their best (and especially during emergencies), make it possible for students and adults from all varieties of circumstances to improve on the curriculum choices of educational institutions, and structure active responses "on the fly".]

3) Further, *our complex cultural landscapes* include many different kinds of people, with many different kinds of moral compasses--who are making both sincere and insincere efforts at navigating these complex cultural landscapes.

a) On the subject of "many different kinds of moral compasses"—

--"The World Christian Encyclopedia" (editors David B. Barrett and Todd M. Johnson: Oxford University Press)—the result of "40 years of systematizing membership statistics and other information on world religions"—includes a "best estimated count of believers of all religions in each of 238 nations and territories" in the world, and in summary "identifies 10,000 distinct religions, of which 150 have 1 million or more followers." (referring to 2nd Edition published in 2001)

[from article "An Accounting of World's Souls" by Richard N. Ostling on March 17, 2001 in the Washington Post (see also "New Edition of 'World Christian Encyclopedia' published" on the Adherants.com)]

--and the above figure of "10,000 religions" only represents religions… and does not reflect any understanding of how many different moral compasses there are among people who are not affiliated with any formal religious or spiritual tradition.

[Note: "As of 2010, there were 1.1 billion religiously unaffiliated people around the world, accounting for about one-in-six (16%) people worldwide. This makes the unaffiliated the third-largest religious grouping worldwide, behind Christians and Muslims, and about equal in size to the world's Catholic population." (from the webpage "Unaffiliated" at the website for the Pew-Templeton Global Religious Futures Project) The above figure "1.1 billion religiously unaffiliated people" is confirmed by the webpage "Major Religions of the World Ranked by Number of Adherents" at the Adherants.com website, with the added descriptors for that group: "includes agnostic, atheist, secular humanist, and people answering 'none' or 'no religious preference'. Half of this group is "theistic" but non-religious."]

b) On the subject of "efforts at navigating these complex cultural landscapes": i*t has taken a lot of being "confused" about the cardinal directions on our "moral compasses" to get where we are now.*

4) And there are conflicts which may arise, among people with different, but very personal, beliefs:

a) "Because identity describes who we are as a person, we tend to protect those things (beliefs, values, group affiliations) that help create our sense of self."
b) "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."
c) "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."
d) "They may view any compromise about their most cherished values as a threat to their very identity and a grave evil."
e) "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."
f) "In some cases, one group may come to view the beliefs and actions of another group as fundamentally evil and morally intolerable. This often results in hostility and violence and severely damages the relationship between the two groups. For this reason, moral conflicts tend to be quite harmful and intractable."
g) "Since resolving conflict necessarily involves some kind of change, it is essential to understand the operation of worldviews. When people are asked to change their identity or things they find meaningful, they will resist, sometimes even when the alternative is death."

[Quotes a) thru f) are from the article "Moral and Value Conflicts" by Michelle Maiese (July, 2003); quote g) is from the article "Cultural and Worldview Frames" by Michelle LeBaron (August, 2003). Both articles are from the very valuable Knowledge Base for Conflict Resolution website Beyond Intractability]

However, the above list of concerns during moral conflict could also be referring to many other "us vs. them" narratives, other than conflict associated with religious groups. For example--

--oppressed vs. oppressors
--different political parties campaigning for votes during elections
--ecological sustainability vs. economic development
--labor vs. management
--non-violent conflict resolution vs. violent conflict resolution
--pro-choice vs. right to life

And so on (i.e. there are many "us vs. them" narratives in progress, at this current time.)

5) 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:

--sacrifice personal desires for the greater good of the whole

--find contentment and quality of life while consuming less material goods and ecological services

--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

--use resources carefully, so that there is surplus available for emergency assistance

--support community life and cultural traditions which "… bring to the fore how many good people there are, how many ways there are to do good, and how much happiness comes to those who extend help, as well as to those who receive it".

a) Consider:

--"… every article in the bazaar has moral and spiritual values attached to it…." (from "Why the Village Movement?" by J.C. Kumarappa, economist who worked with Mahatma Gandhi)

--"A certain degree of physical comfort is necessary but above a certain level it becomes a hindrance instead of a help…. 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 (see paragraph 15)

--"Popular programming reflects a level of acceptance and shared values among large numbers of people." [from "International Communications: A Media Literacy Approach" by Art Silverblatt and Nikolai Zlobin M.E. Sharpe July, 2004 (most content accessible at Google Books)]

--"Global advertising expenditure is predicted to reach $581 billion at the end of 2018…." [from the article "Global advertising expenditure to grow 4.5 percent in 2018: Zenith" (September 23, 2018) at the Reuters website]

--"It would be foolish to underestimate the challenge of checking the consumption juggernaut…." [From the Worldwatch Institute webpage titled "State of the World 2004: Richer, Fatter, and Not Much Happier" (about "State of the World 2004: Special Focus—The Consumer Society")(in last paragraph)(quote from Christopher Flavin, former Director at Worldwatch Institute)

--"Agriculture accounts for 70% of global water withdrawal." [from the UN Water webpage for "Food, Energy, and Water" (in Section "Facts and Figures")]

--"A third of the world's biggest groundwater systems are already in distress." [from the UN Water webpage for "Water Scarcity" (in Section "Facts and Figures")]

"Nearly half the global population are already living in potential water-scarce areas at least one month per year and this could increase to 4.8–5.7 billion in 2050." [from the UN Water webpage for "Water Scarcity" (in Section "Facts and Figures")]

--"It is estimated that 842,000 deaths per year, are attributable to unsafe water supply, sanitation and hygiene--including 361,000 deaths of children under age five, mostly in low-income countries." [From the World Health Organization section on "Water, Sanitation, Hygiene" on the webpage "Diseases and Risks" (2014)]

--"While almost 800 million people are currently hungry, by 2050 global food production would need to increase by 50% to feed the more than 9 billion people projected who live on our planet." [from the UN Water webpage for "Food, Energy, and Water" (in Section "Facts and Figures")]

--"By the end of 2017 (i.e during 2017), 68.5 million individuals were forcibly displaced worldwide as a result of persecution, conflict, violence or human rights violations…. We are now witnessing the highest levels of displacement on record." [Refugee Statistics; United Nations High Commissioner for Refugees (UNHCR)]

--"The global drugs trade and the global arms trade are integral to violence in both developing and industrialized countries. Even modest progress on either front will contribute to reducing the amount and degree of violence suffered by millions of people. To date, however--and despite their high profile in the world arena--no solutions seem to be in sight for these problems" [from p. 32-33; Summary: "World Report on Violence and Health" (2002); World Health Organization]

--"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 Chicago Tribune; June 18, 2018)

 --"(Stockholm, 2 May 2018) Total world military expenditure rose to $1739 billion ($1.7 trillion) in 2017, a marginal increase of 1.1 per cent in real terms from 2016, according to new figures from the Stockholm International Peace Research Institute (SIPRI)." [from the press release for SIPRI's comprehensive annual update of the SIPRI Military Expenditure Database]

--"The destruction of wild habitat for farming, logging and development has resulted in the start of what many scientists consider the sixth mass extinction of life to occur in the Earth's four billion year history. About half the Earth's animals are thought to have been lost in the last 50 years." [from article "Humans just 0.01% of all life but have destroyed 83% of wild mammals – study" by Damian Carrington, Environment Editor; 21 May 2018 Guardian]

b) Looking at the above list of statistics and observations (as a whole), it should be clear to most readers that the negative outcomes associated with every one of the issues and challenges identified would be noticeably remedied if the treasured wisdom (above, on p. 15) were more fully integrated into the everyday circumstances of community life.

It should also be clear to most readers that the virtuous conduct (the discipline, restraint, wisdom, understanding, compassion, forgiveness, etc.) necessary--to transform the above examples 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 need of the most unprecedented cultural transformation in the history of life Planet Earth, and living the most complex cultural landscapes ever created.*

c) *There are very real possibilities that our best efforts to achieve a 50% reduction in Greenhouse Gas Emissions by 2030, and resolve other numerous unprecedented challenges, could be crippled by cultures of violence, greed, corruption, cynicism, and overindulgence--which have been a part of our human heritage for thousands of years.* (How far off are positive tipping points for these challenges?)

d) Further, there are many people living in very difficult life circumstances.

Just from the above statistics alone—

--"almost 800 million people are currently hungry"
--"Nearly half the global population are already living in potential water-scarce areas at least one month per year and this could increase to 4.8–5.7 billion in 2050."
--"It is estimated that 842,000 deaths per year, are attributable to unsafe water supply, sanitation and hygiene--including 361,000 deaths of children under age five, mostly in low-income countries."
--"By the end of 2017 (i.e. during 2017), 68.5 million individuals were forcibly displaced worldwide as a result of persecution, conflict, violence or human rights violations…. We are now witnessing the highest levels of displacement on record."

e) And there are going to be many people who are simply not able to adapt and change in response to unprecedented challenges as fast as other people.

Considering the above evidence [1), 2), 3), 4), and 5) above]—

--and including what is supplied by news media every day; and what we can see in the everyday circumstances of our lives

--and adding to that the unprecedented cultural transformation necessary to limit global warming to 1.5^{o}C—

> (which include a high probability that weather related disasters will increase in number
> and severity; and that associated migration, displacement, and humanitarian assistance
> costs will also increase)

and the unprecedented cultural transformations necessary to respond to numerous other unprecedented challenges (see list on p. 11)

--and what we have

> (if we feel clarity of vision requires us to comprehend
> the full dimensions of the unprecedented challenges ahead)

is a picture of the present, the near future, and not so near future, where our capacity to maintain social cohesion; the strength, depth, and substance of our spiritual wisdom; and our capacity to co-exist with the rarest, and most wonderful, form of creation, a living Planet--**will be tested like never before.**

Hopefully, such "pictures" (as visualized above) (here and elsewhere) can stir--

our innate desire for hope; the seemingly inexhaustible capacity of human beings to innovate; the grit, determination, and perseverance pioneers in human history have had to somehow find; the wisdom and common sense which comes from having overcome many challenges in the past; and our faith (Faith helps move belief from "it hardly seems possible" to "it must be possible"--since faith believes love will prevail).

--and move many readers to the point where this writer is… which is… 6) thru 9)

6) We have the resources necessary to resolve all the unprecedented challenges we are facing—including the Climate Emergency.

7) We need solutions--to the Climate Emergency, and to numerous other unprecedented challenges--which recognize the need to re-discover and apply wisdom and compassion in the everyday circumstances of community life--<u>at this critical time when wisdom and compassion are so urgently needed.</u>

   (Repeated, this time with emphasis on implementing solutions, instead of understanding potential challenges)

8) We need collaborative problem solving and community education approaches which are on a scale most of us have never known before; which make the most of everyone's skill and knowledge at the local level; and which help us realize how much we need to be on the same side helping each other.

9) We should be very careful about what we are trying to preserve--as in carry into the future. Many of the "benefits of advanced civilization" may become burdens instead of benefits, if we try to carry them into a future involving drastically reducing Greenhouse Gas Emissions--where even the smallest of positive margins might cause a tipping point go our way.

6) We have the resources necessary to resolve all the unprecedented challenges we are facing—including the Climate Emergency.

Consider:

a) "In the Greater Washington D.C. area (USA), there are:

approximately 2,400 places of worship
well over 1,200 non-profit human service organizations (with services ranging
       from food and clothing supplies for needy, homeless shelters, alcohol and drug
       abuse rehabilitation, healthcare, employment assistance, etc.)
well over 1,000 civic associations and advisory neighborhood commissions
over 1,000 public and private schools
over 350 continuing care retirement communities, independent living retirement communities,
       assisted living/group homes, nursing care facilities and home health care agencies for elders
over 200 men's and women's service clubs
over 125 fire departments and rescue squads
over 50 hospitals
over 50 central and district police stations
over 50 universities, community colleges and theological seminaries
over 30 boys and girls clubs

(from a database compiled in 1996 by this writer)

What if we take this example as representative of the goodwill which exists in cities, towns, and villages around the world? Then it most surely follows that even now, as you are reading this, truly inspiring contributions of genuine goodwill are being generated in a variety of ways--and in a variety of circumstances--by countless numbers of people in communities around the world.

b) The cross country torch relay for the 1996 Summer Olympics in Atlanta, Georgia (USA) began April 27 in Los Angeles and ended July 19 in Atlanta.

Of the approximately 10,000 torch-carriers, about 5,000 were "community heroes selected by local United Way panels based on nominating essays."

Thirty-seven of the eighty-five torch-carriers in the Greater Washington D.C. area were "community heroes." A graphic--in the newspaper article referenced for this information--listed all thirty-seven "community heroes."

What follows are some of the brief descriptions, included in that graphic, of those "community heroes":

"who does volunteer work with the elderly"; "who is active in the Big Brother program in the District"; "who does volunteer work with AIDS patients and people infected with HIV"; "who does volunteer work at hospitals"; "who is active in literacy programs for children"; "who does a range of neighborhood volunteer work"; "who helps abandoned, 6 orphaned and disabled children"; "who does volunteer work with children and elderly in poor neighborhoods"

[Source Reference: the brief descriptions of "community heroes"--and the information in the paragraphs above those descriptions--are from an article titled "Blazing an Olympian Trail" by Paul Duggan in The District Weekly section of the Washington Post, on June 13, 1996 (partial version--without photos)]

Again-- what if we take this example as representative of the goodwill which exists in cities, towns, and villages around the world? Then it most surely follows that even now, as you are reading this, truly inspiring contributions of genuine goodwill are being generated in a variety of ways—and in a variety of circumstances—by countless numbers of people in communities around the world.

c) 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 resources, knowledge and wisdom to create, support, and sustain communities which can keep global warming below 1.5^{o}C (2.7^{o}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.

Here are 64 fields of activity which this writer will highlight, as a sample of what is included in the list:

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; Transition Towns; Village Industries/Cottage Industries; Village Support Centers; Violence Prevention; Voluntary Simplicity; Wind Power; Wisdom; Zero Waste

It is inspiration like that which comes from a), b), and c) above which has convinced this writer there are countless numbers of "things people can do in the everyday circumstances of their lives" which will contribute to peacebuilding, community revitalization, and ecological sustainability efforts, in their own communities and regions--and in other parts of the world.

7) We need solutions--to the Climate Emergency, and to numerous other unprecedented challenges-- which recognize the need to re-discover and apply wisdom and compassion in the everyday circumstances of community life--at this critical time when wisdom and compassion are so urgently needed.

This writer believes it is becoming more and more likely that an exponential increase in compassion for our fellow human beings will need to become an essential and critical element of a truly comprehensive response to the challenges of our times. In such circumstances, we cannot afford to exclude from our "tool box" the time-tested sources which have helped people learn compassion over many centuries.

<u>What we need to do instead is to learn how to cultivate the time-tested sources so that the sources yield the treasured wisdom.</u>

Thus, this writer believes 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.

Earlier, on p. 15, this writer offered a five point set of examples of the real treasured wisdom of religious, spiritual, and moral traditions which now seems to be hidden--and thus in need of being re-discovered. These "hidden" resources include teachings which inspire and encourage people to:

--sacrifice personal desires for the greater good of the whole
--find contentment and quality of life while consuming less material goods and ecological services
--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
--use resources carefully, so that there is surplus available for emergency assistance
--support community life and cultural traditions which "… bring to the fore how many good people there are, how many ways there are to do good, and how much happiness comes to those who extend help, as well as to those who receive it".

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.

Anticipating such tests to our capacity to maintain social cohesion; the strength, depth, and substance of our spiritual wisdom; and our capacity to co-exist with the rarest, and most wonderful, form of creation, a living Planet—*and also believing that there is so much unrealized potential in the spiritual wisdom we have accumulated in 5,000 years of human history*—is why this writer has emphasized, for decades now, the value of collaborative problem solving and community education approaches like Community Visioning Initiatives and Neighborhood Learning Centers.

Again, readers are urged to examine carefully the overview provided on p. 64-70 (and, in this context, also p. 74 on "Interfaith Peace Vigils") in the Community Peacebuilding and Cultural Sustainability (CPCS) Initiative Summary Paper <u>"Harvest Song"</u>.

Even further, another of this writer's Summary Papers for the CPCS Initiative--"13 Steps for Long Term Culture Change"--gives much attention to the difficult challenge of integrating wisdom and compassion into the everyday circumstances of community life--at this critical time when wisdom and compassion are so urgently needed.

8)-B) Repeated--this time with emphasis on implementing solutions, instead of understanding potential challenges)

We need collaborative problem solving and community education approaches which are on a scale most of us have never known before; which make the most of everyone's skill and knowledge at the local level; and which help us realize how much we need to be on the same side helping each other.

a) "We help to grow teachers…. We identify talent and find a way of attracting, retaining, and supporting cohorts of teachers from all sectors of local communities. We find mentors for teachers to ensure subject-matter mastery and teaching technique, and then provide opportunities at our community teaching and learning centers for emerging teachers to practice. Our plan is to start from the ground up - incorporating local mentorship, distance learning, and community college offerings, then assist local talent in completion, at a high level, of course work at four-year schools. Most importantly, we provide a means of steady communication and feedback amongst cohorts of teaching talent."

[From a "Community Teaching and Learning Centers" section of the "Teachers Without Borders" (TWB) website before TWB discontinued that part of their programming. This part of the "Teachers Without Borders" programming was most inspiring to this writer, who eventually developed the idea into what he calls Neighborhood Learning Centers. At the current TWB website, "Community Teaching and Learning Centers" are referred to as a "Legacy Initiative" (see webpage for "Legacy Initiatives")]

b) Key Role for Philanthropy

"In 1912, Rosenwald provided funds for a pilot program involving six new small schools in rural Alabama, which were designed, constructed and opened in 1913 and 1914 and overseen by Tuskegee; the model proved successful. Rosenwald (then) established The Rosenwald Fund. The school building program was one of its largest programs. Using state-of-the-art architectural plans initially drawn by professors at Tuskegee Institute, the Rosenwald Fund spent over four million dollars to help build 4,977 schools, 217 teachers' homes, and 163 shop buildings in 883 counties in 15 states, from Maryland to Texas. The Rosenwald Fund used a system of matching grants, and black communities raised more than $4.7 million to aid the construction. These schools became known as Rosenwald Schools. The local schools were a source of much community pride and were of priceless value to African-American families when poverty and segregation limited their children's chances. By 1932, the facilities could accommodate one third of all African American children in Southern U.S. schools."

[The above content was at the Wikipedia webpage for "Booker T. Washington", in the section "Julius Rosenwald". The content there now is very similar. This reference to efforts by Julius Rosenwald to help advance the work of Booker T. Washington were very inspirational to this writer, and also helped him develop a "picture" of the potential of Neighborhood Learning Centers.]

c) There are billions of people who could be investing their time, energy, and money (their "votes") in the everyday circumstances of their community life--and such "votes" could lead to countless ways of earning a living which are carbon-neutral, sustainable, socially responsible, and spiritually meaningful--if they only knew how.

This point refers to the following "cause-effect" relationships:

--The ways we "invest" our time, energy, and money have a direct impact on the "ways of earning a living" that are available.
--The investments of time, energy, and money that each of us make in our everyday circumstances becomes the larger economy.

In this context, it will be helpful to remember that such cultural transformation at the grassroots level (billions of people, and their "votes") is exactly how the "100 companies responsible for 71% of global emissions" (Guardian) (CDP's "Carbon Major Report 2017") found their way to the positions they now hold in the "status quo".

Thus, through workshops and other informal education (and associated local learning networks), people everywhere need to 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 resilience, and ecological regeneration efforts necessary to resolve the Climate Emergency--and other unprecedented challenges--at the same time. As the ancient Chinese proverb says: "Many hands make much work light."

d) Special Note on Peacebuilding and Reconciliation

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 <u>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.</u>

Many of us have already seen that these kind of opportunities arise during the cooperative efforts needed to recover from massive natural disasters. At this critical time, we need to multiply such cooperative efforts by 10,000, or even 100,000, to curb global warming before there are too many of the kind of natural disasters from which we cannot recover.

9) We should be very careful about what we are trying to preserve--as in carry into the future. Many of the "benefits of advanced civilization" may become burdens instead of benefits, if we try to carry them into a future involving drastically reducing Greenhouse Gas Emissions--where even the smallest of positive margins might cause a tipping point go our way.

a) Thus, if those of us in the most developed countries (or even the most developed segments of less developed countries) persist in believing that we must continue to have 24/7 accessibility to--

news
airplane transportation
personally owned motor vehicle transportation
electric power
heat and cooling systems
the most advanced health care
the food choices we want
the entertainment we want (some of which clearly has no socially redeeming qualities)
ways of throwing things away, or flushing stuff away, without any thoughts about the consequences
and an almost unimaginable variety of tools, gadgets, and other conveniences (which most of us would rather own personally, instead of sharing through a neighborhood collective)

and thus it is the rest of the world which needs to be raised up to this standard

--we can be easily distracted from the most essential priorities:

> ---to preserve social cohesion, so we--collectively--can do
> collaborative problem solving as effectively as possible

<div align="center">

---to preserve and apply the most treasured wisdom and compassion

human beings have accumulated in 5,000 years of human history

---to preserve the stability and integrity

of eco-systems on which our lives depend

</div>

**Thus: "A certain degree of physical comfort is necessary but above a certain level it becomes a hindrance instead of a help.... 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)

And especially during a Planetary Emergency.

**Further, if many people can learn to find contentment and quality of life while consuming much less material goods and ecological services, this limiting of desires at the "root" will save much trouble trying to respond to the symptoms (of unrestrained, or unexamined desires) as they materialize worldwide.

The two above double asterisk (**) statements about limiting desires are examples of the benefits of spiritual teachings which often gets overlooked. This writer believes the above two observations about limiting desires should not be overlooked now, at this critical time.

b) It is partly so we can be more focused, instead of so often distracted, that this writer prefers priorities (for urgently and drastically cutting global emissions) be given to small cities, towns, and villages:

--which have less complex infrastructure and less complex vulnerabilities
--which are more sustainable-friendly in the long run
--where more emphasis can be given to downsizing and focusing on what basic necessities are most needed
--where it is easier to see the consequences of our actions   and
--where a truly natural circular economy (sewage treatment; food miles; less packaging; zero waste; etc.) is much easier to implement, and more likely to actually happen.

"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." (J.C. Kumarappa, economist who worked with Mahatma Gandhi)

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Concluding Comments

We are at one of the most critical crossroads in the history of life on Planet Earth.

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.

Unfortunately, global carbon emissions are still rising [see Appendix II]--and there continues to be well-documented, evidence-based reports showing that negative feedback loops (of many different varieties) are moving at speeds, and in patterns, which go beyond previous projections.

In addition, 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. One example: many of us have developed very ingrained habits associated with our accessibility to a surplus of material advantages. However, many of the "benefits of advanced civilization" may become burdens instead of benefits, if we try to carry them into a future involving drastically reducing Greenhouse Gas Emissions--where even the smallest of positive margins might cause a tipping point go our way.

This "Brainstorming 50% by 2030" Campaign believes that the accumulation of short-enough-for-many-people-to-read, evidence-based overviews by many of the most trusted institutions and organizations in the world--which are saturated with doable solutions (including solutions which can be put into practice by citizens everywhere)--can streamline many much needed solutions to the frontlines of public discourse.

When 100-150 of these kinds of 5-10 page overviews have been accumulated, and vetted for factual accuracy, social responsibility, practicality and replicability, cost effectiveness, and etc., such a collection of overviews can function as a "needs assessment"--of the kind which precedes local Community Visioning Initiatives.

Many Colleges and Universities assisting with carrying out local Community Visioning Initiatives
+ many supporting Neighborhood Learning Centers
= an exponential acceleration in solution-oriented activity.

1000 time-intensive Community Visioning Initiatives, in communities around the world, would create—
a) an exponential acceleration in solution-oriented investment
b) an exponential acceleration in solution-oriented employment and
c) an exponential acceleration in our collective capacity to overcome the challenges of our times.

Then we will be coming closer to understanding how much we need to be learning to be a part of the solutions, and how much we need to be on the same side helping each other.

Appendix I

There has been much analysis, and many projections made, about how much time we have to achieve a 50% reduction in Greenhouse Gases to limit global warming to 1.5°C (before negative feedback loops carry us into very high risk global warming). (from p. 3 above)

Below are eight examples of projections made from 2008-2019. It is especially worth noting that Lester Brown and his associates (at Earth Policy Institute), were (in 2003)[see 1)] suggesting that we cut "global carbon emissions in half by 2015"; and were (in 2008-2009) [see 2), and 3)] advocating for a "worldwide cut in net carbon emissions of 80 percent by 2020"--as "what would it take to have a decent shot at saving the Greenland ice sheet and at least the larger glaciers in the mountains of Asia" [see 3)].

1) "Avoiding the damaging effects of higher temperatures on crop yields means moving quickly to stabilize climate. "In Plan B," says Brown, "I suggest cutting global carbon emissions in half by 2015. This is entirely doable, as a number of recent studies have suggested. If higher temperatures shrink harvests, public pressure to replace coal and oil with natural gas, wind power, and hydrogen will intensify worldwide."

"Unfortunately," says Brown, "since September 11, 2001, political leaders and the media worldwide have been preoccupied with terrorism and, more recently, the invasion of Iraq. Terrorism is certainly a matter of concern, but if Osama Bin Laden and his followers succeed in diverting our attention from the environmental trends that are undermining our future until it is too late to reverse them, they will have achieved their goal in a way they have not imagined."

[From the Press Release for "Plan B: Rescuing a Planet Under Stress and a Civilization in Trouble" by Lester R. Brown (**2003**) (see paragraph 17 and 21) at the website for the Earth Policy Institute]

2) "Plan B is shaped by what is needed to save civilization, not by what may currently be considered politically feasible. Plan B does not fit within a particular discipline, sector, or set of assumptions."

"Implementing Plan B means undertaking several actions simultaneously, including eradicating poverty, stabilizing population, and restoring the earth's natural systems. It also involves cutting carbon dioxide emissions 80% by 2020, largely through a mobilization to raise energy efficiency and harness renewable sources of energy."

"Not only is the scale of this save our-civilization plan ambitious, so is the speed with which it must be implemented. We must move at wartime speed*, restructuring the world energy economy at a pace reminiscent of the restructuring of the U.S. industrial economy in 1942 following the Japanese attack on Pearl Harbor. The shift from producing cars to planes, tanks, and guns was accomplished within a matter of months."

*[Note: For some perspective on references to "moving at wartime speed", here is an excerpt from an article titled "World War II Mobilization 1939-1943" at the website Encyclopedia.com (see paragraph 6)

"The U.S. government was willing to spend as much money as needed to win the war. The federal budget increased from $8.9 billion in 1939 to over $95 billion in 1945. The gross national product, which is the total value of all goods and services produced by the nation's economy, increased from just over $90 billion to almost $212 billion. The total amount of war materials produced by 1945 was staggering. U.S. factories had made 296,000 warplanes, 86,000 tanks, 64,000 landing ships, six thousand navy vessels, millions of guns, billions of bullets, and hundreds of thousands of trucks and jeeps."]

[Above the note—the excerpts about "Plan B" are from "Plan B 3.0: Mobilizing to Save Civilization" by Lester Brown [**2008** (no month provided] at the website for the Earth Policy Institute (above link is free download of entire book; see section "Plan B—A Plan of Hope" p. 20, paragraphs 1, 2, and 3)]

3) "…Plan B aims to stabilize climate, stabilize population, eradicate poverty, and restore the economy's natural support systems. It prescribes a worldwide cut in net carbon emissions of 80 percent by 2020, thus keeping atmospheric CO2 concentrations from exceeding 400 parts per million.* 'In setting this goal,' says Brown, 'my colleagues and I did not ask what would be politically popular but rather what would it take to have a decent shot at saving the Greenland ice sheet and at least the larger glaciers in the mountains of Asia.'"

* [Note: see 8) below, for graphs illustrating where we are now on CO2 parts per million.]

[From the Press Release for "Plan B 4.0: Mobilizing to Save Civilization" by Lester R. Brown (**October, 2009**) (see paragraph 17) at the website for the Earth Policy Institute]

4) On 15 **December, 2015**, in Paris, France, a historic agreement was reached, as 195 countries adopted a new universal, legally binding global climate deal.

"**Immediate ambition and long-term goal**: <u>The text says countries will seek to keep temperature rises to 'well below' 2°C above pre-industrial levels,</u> beyond which dangerous climate change is expected. <u>It also includes a reference to a tougher limit, saying countries will 'pursue efforts to limit the temperature increase to 1.5^{o}C',</u> which is necessary to the very survival of the most vulnerable nations. Countries will aim to peak climate change-causing emissions 'as soon as possible', and 'in accordance with best available science, so as to achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century, on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty'. In other words, this is a long-term target of net zero emissions by the end of the century (which leaves the door open for techniques such as carbon capture), and while the inclusion of such a target will have a real impact on emissions, <u>it is considerably less ambitious than the target of full decarbonisation by 2050 that many support.</u>"

[from the article <u>"Historic climate agreement reflects real world change, protects vulnerable people"</u> at the website for the Global Call for Climate Action (in the section "Immediate ambition and long-term goal") (Note: the date on the webpage is February 9, 2017; however, this writer has a record of this article being available, along with many other analysis on the Paris Agreement, in December, 2015)]
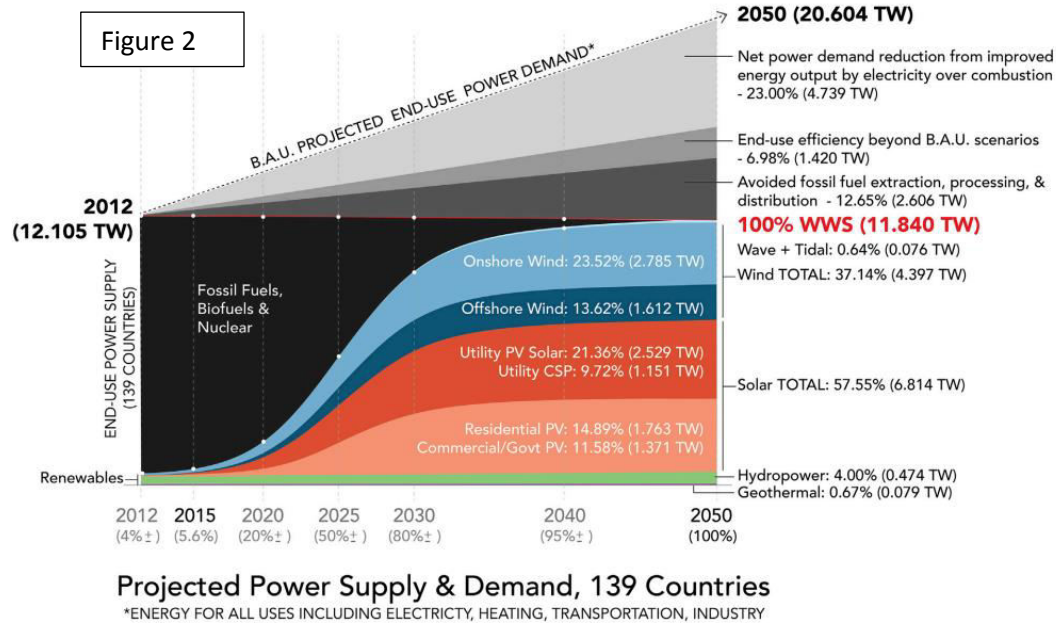

5) "<u>The transformation required for a reasonable chance of remaining within the temperature goal of 1.5^o C is stark. It would require net-zero emissions at some point between 2040 and 2060</u> (even if negative emissions technologies can be deployed at scale), thus requiring radical near-term reductions in energy sector CO2 emissions, employing every known technological, societal and regulatory decarbonisation option."

[from the <u>Executive Summary of "World Energy Outlook 2016"</u> (in the section "The 2° C pathway is very tough: the road to 1.5^o C goes through uncharted territory" (p. 5) released on **November 16, 2016** by the International Energy Agency (IEA)]

6) "The roadmaps [illustrated by charts via the <u>Interactive Map</u> (which also illustrates roadmaps for cities worldwide, and states in the U.S.)] describe a future where all energy sectors are electrified or use heat directly with existing technology, energy demand is lower due to several factors, <u>and the electricity is generated with 100% wind, water, and sunlight (WWS)(Water, Wind, and Solar).</u>" (p. 108-109)

 "Figure 2 (below)(on p. 118 in article) is a proposed WWS transformation timeline for the 139 countries. <u>It assumes 80% conversion to WWS by 2030 and 100% by 2050.</u> The rate of transformation is based on

what is necessary to eliminate air-pollution mortality as soon as possible, what is needed to avoid 1.5C net global warming, and what we estimate is technically and economically feasible." (p. 117)
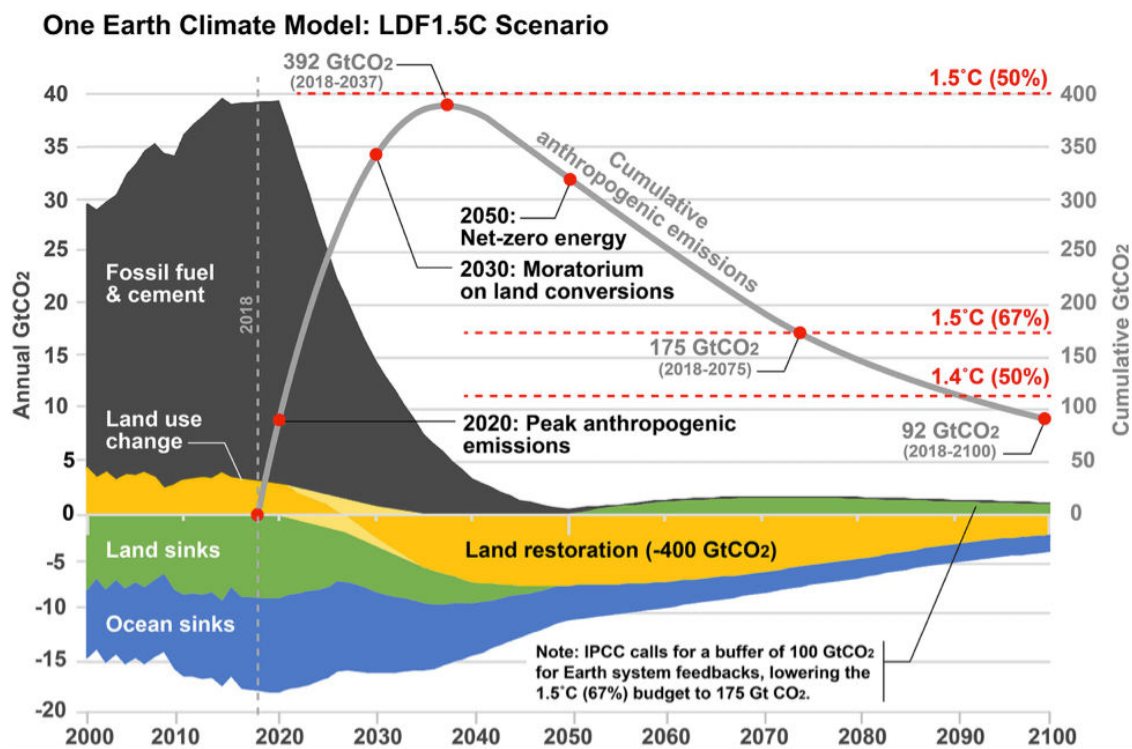

Figure 2

Projected Power Supply & Demand, 139 Countries
*ENERGY FOR ALL USES INCLUDING ELECTRICTY, HEATING, TRANSPORTATION, INDUSTRY

[Source: "100% Clean and Renewable Wind, Water, and Sunlight All-Sector Energy Roadmaps for 139 Countries of the World" Mark Z. Jacobson (Stanford University, CA) et al. in Joule 1 (energy journal) (p. 108-121) September 6, 2017 (Additional Sources: referred to Joule article by "Most of the world's countries could run on 100% renewable energy by 2050, says study" by John McKenna at World Economic Forum **September 18, 2017**; and The Solutions Project Interactive Map)]

7) "There is no shortage of evidence that humanity is entering a very serious place."

"Global society needs to be collectively on a path to achieving net zero greenhouse gas emissions as far in advance of the Paris Agreement's target date of 2050 as possible. The earlier this is achieved, the greater the chance of limiting global temperature rise to near 1.5^{o}C, minimising the risk of severe runaway climate impacts and protecting the most vulnerable countries. There is, therefore, an urgent need to integrate accelerated short-term action with enhanced ambition in longer-term planning from all nations."

[from the "Executive Summary" section (see p. 7) of "Raising Ambition: Zero Carbon Summaries from Across the Globe" (a Centre for Alternative Technology Project) (**2018**)]

8) "The One Earth climate model is groundbreaking in that it shows the 1.5°C target can be achieved through a rapid transition to 100% renewables by 2050 (65% by 2030), alongside a major conservation effort to increase the resilience of natural ecosystems and help ensure greater food security. This includes a moratorium on land conversions by 2030 and 400 GtCO2 of 'negative emissions' from forest and land restoration (shown in gold below the zero line), which pulls carbon dioxide out of atmosphere and stores it in trees and soil."
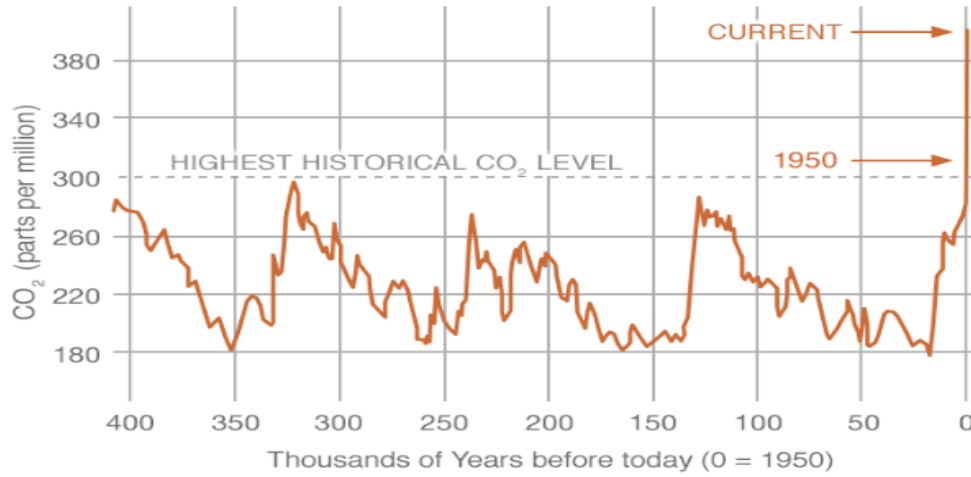

One Earth Climate Model: LDF1.5C Scenario

[from an introductory webpage to the "One Earth Climate Model" at the website of the Leonardo DiCaprio Foundation The book describing the "One Earth Climate Model"--"Achieving the Paris Climate Agreement Goals: Global and Regional 100% Renewable Energy Scenarios with Non-energy GHG Pathways for +1.5°C and +2°C"--by Sven Teske, Ed. (491 pages) Springer, **2019** is accessible for free at https://link.springer.com/book/10.1007%2F978-3-030-05843-2#editorsandaffiliations]

9) [From the webpage titled "Facts" in the subsection titled "Carbon Dioxide" at the website for the National Aeronautics and Space Administration]
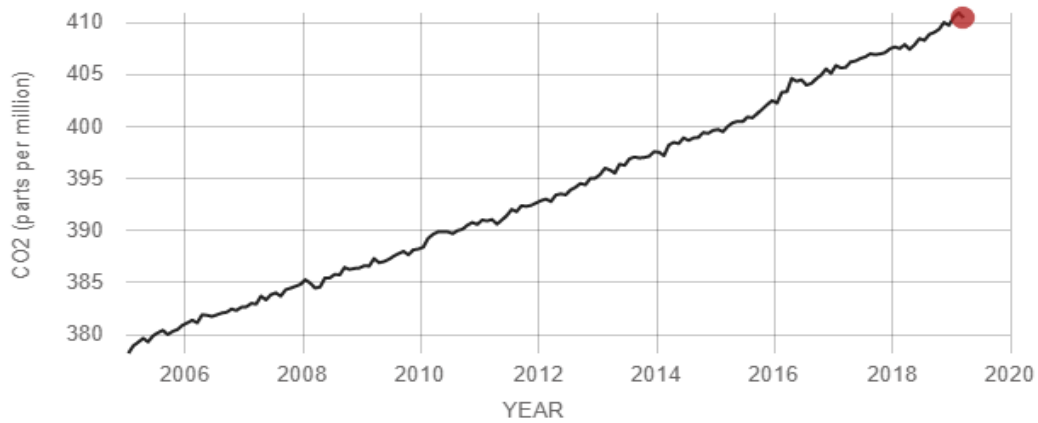
PROXY (INDIRECT) MEASUREMENTS

Data source: Reconstruction from ice cores.
Credit: NOAA

DIRECT MEASUREMENTS: 2005-PRESENT

Data source: Monthly measurements (average seasonal cycle removed). Credit: NOAA

Appendix II

Appendix II

Global Carbon Emissions are Still Rising

1) "Global CO2 emissions are projected to go up in 2018 by more than 2%. In 2017, they increased by 1.6%, having flattened out between 2014 and 2016. The reasons? The use of oil and gas keeps growing, and some countries are still using coal to fuel much of their economic growth (see 'Rising pressures')."

[from a "Comment" contribution titled "Emissions are still rising: ramp up the cuts" by Christina Figueres, Corinne Le Quéré, Anand Mahindra, Oliver Bäte, Gail Whiteman, Glen Peters. and Dabo Guan in the online version of Nature (December 5, 2018)]

2) "The level of climate-warming carbon dioxide (CO2) in the atmosphere is forecast to rise by a near-record amount in 2019, according to the Met Office (The Met Office is the United Kingdom's national weather service). The increase is being fueled by the continued burning of fossil fuels and the destruction of forests, and will be particularly high in 2019 due to an expected return towards El Niño-like conditions. This natural climate variation causes warm and dry conditions in the tropics, meaning the plant growth that removes CO2 from the air is restricted."

[from an article titled "'Worrying' rise in global CO2 forecast for 2019" by Damian Carrington, (Environment Editor) in the Guardian January 24, 2019]

3) "Hopes that global CO2 emissions might be nearing a peak have been dashed by preliminary data showing that output from fossil fuels and industry will grow by around 2.7% in 2018, the largest increase in seven years. This year, the largest increases have occurred in China, driven by government stimulus of the construction industry. US emissions have also increased markedly in 2018, after an unusually cold winter and hot summer helped to drive up energy demand."

[from an article titled "Analysis: Fossil-fuel emissions in 2018 increasing at fastest rate for seven years" by Zeke Hausfather on the website of Carbon Brief May 5, 2018]

4) "Global emissions are still rising, demonstrating once again that more urgent action is needed on all fronts--developing all clean energy solutions, curbing emissions, improving efficiency, & spurring investments and innovation http://bit.ly/2U8n2tI "

[from a tweet by @IEA on the Twitter Platform (April 1, 2019)--which includes an informative video clip, and a bitly link to article on the IEA's website titled "Global Energy & CO2 Status Report: The latest trends in energy and emissions in 2018").]
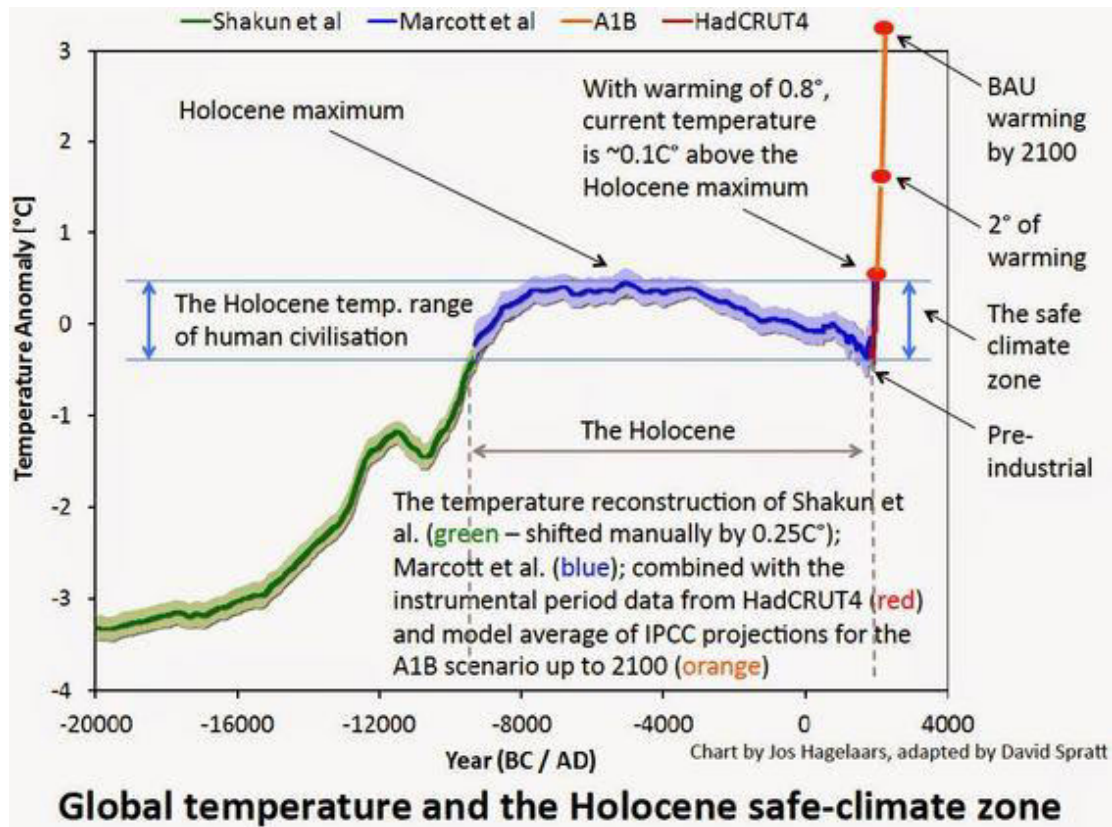
Appendix III

A) **Eric Holthaus** Verified account @EricHolthaus November 1, 2018

Your periodic reminder of the news story of the millennium: We have left the 10,000-year climate "safe zone" that gave rise to human civilization.
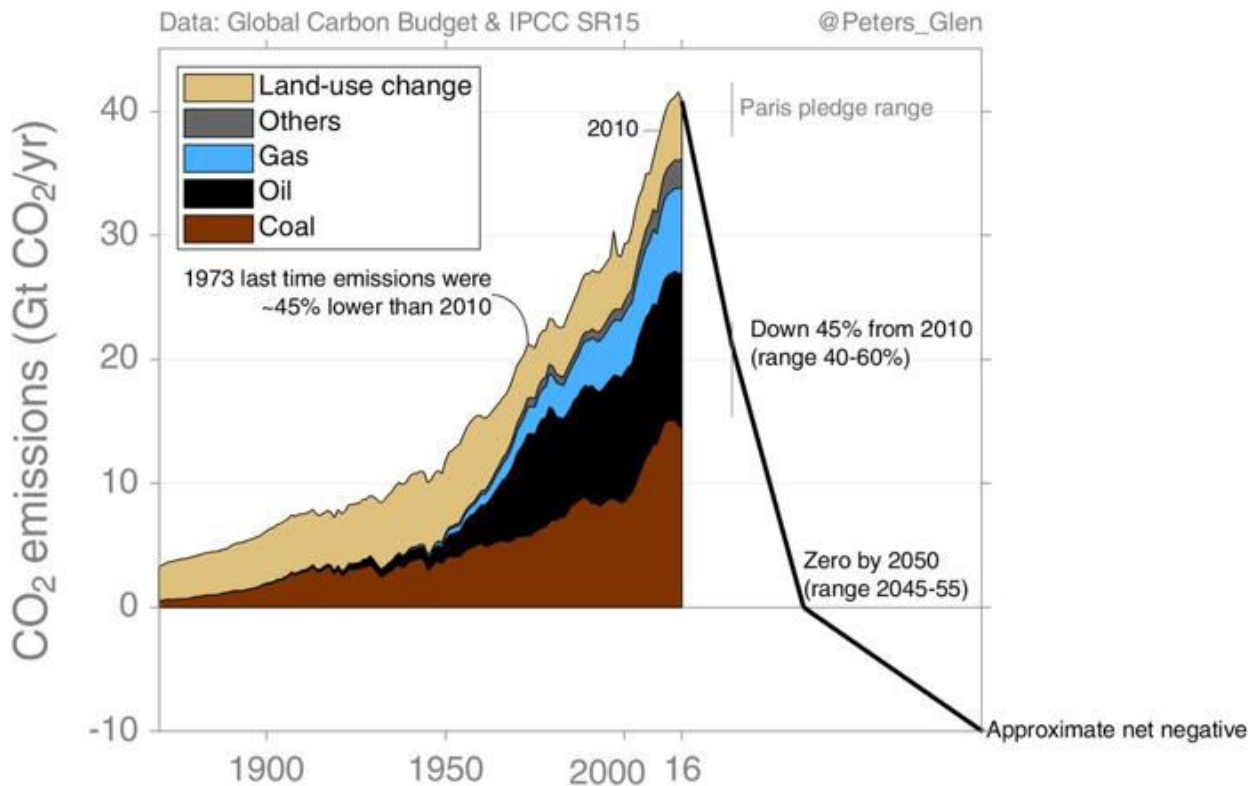

Global temperature and the Holocene safe-climate zone

72 replies   2,984 retweets   3,093 likes

B) **Glen Peters** @Peters_Glen October 12, 2018

According to [#SR15](), pathways with limited overshoot of 1.5°C require global net CO_2 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...

Data: Global Carbon Budget & IPCC SR15   @Peters_Glen

22 replies   248 retweets   249 likes

C) **School Strike 4 Climate** @StrikeClimate March 15, 2019

BREAKING NEWS: While we were asleep, the world was striking! The numbers are in: yesterday was THE BIGGEST day of climate action ever! @ScottMorrisonMP @billshortenmp you catching this? The youth are rising! #climatestrike #ss4c

29   417   796