Our Suicide War with Nature or Welcome on the Titanic (watch tower)

A war more complex than just the CO2 Problem

a short introduction (the tip of the Iceberg)

- **A war against nature = Suicide!**
  "I have heard talk and talk but nothing is done. Good words do not last long unless they amount to something. Words do not pay for my dead people. They do not pay for my country now overrun by white men." **Chief Joseph (1879)** https://www.americanyawp.com/reader/17-conquering-the-west/chief-joseph-on-indian-affairs-1877-1879/

- **Human impact is far too large: The overshoot problem**
  Growing CO2 levels: not the only iceberg (created by civilisation)

- **How to terminate this suicidal war against our life support system?**
  Slow down the destruction of our life support system and start to repair!

- **The responsibility (role) of scientists (physicists?)?**

A war more complex than just the CO2 Problem
a short introduction (the tip of the Iceberg) (I)

News | Environment

‘Humanity waging war on nature’: UN chief

UN biodiversity summit told ‘time is running out’ for humanity to stop destroying the planet.

A photo shows mountains deforested by logging in Jambi province on Indonesia's Sumatra island in 2010 [Romeo Gacad/AFP]

30 Sep 2020

UN Secretary General Antonio Guterres warned humanity must stop “waging war on nature” at the United Nations’ first ever summit on the biodiversity crisis on Wednesday.

He said one consequence of the imbalance with nature – caused by deforestation, climate change and food production – was the emergence of deadly diseases such as HIV-AIDS, Ebola and COVID-19.

Columnists

United Nations Food Systems Summit sees world leaders embrace the idea that 'war against nature' must end – Philip Lymbery

I’ll never forget seeing empty supermarket shelves during the early days of Covid, with people panic-buying and scrabbling for essential supplies.

By Philip Lymbery
Published 27th Sep 2021, 04:55 GMT

0 Comments

Combine harvesters crop soybeans on what was once rainforest in Brazil (Picture: Yasuyoshi Chiba)

A war more complex than just the CO2 Problem

a short introduction (the tip of the Iceberg) (II)

Le Monde

Environment | COP28 | Carbon bombs | Adaptation | The Earth's Pulses | PFAS

Drought in Spain: 'If water management doesn't change, the country will become a desert'

With 80% of intake absorbed by agriculture, researcher Salvador Sanchez-Carillo warns against the overexploitation of water resources.

Interview by Sandrine Morel (Madrid (Spain) correspondent)
Published on April 29, 2023, at 9:30 pm (Paris) · 2 min. · Lire en français

Subscribers only

The Sau reservoir, north of Barcelona, on March 20, 2023. EMILIO MORENATTI / AP

Salvador Sanchez-Carillo, a geologist, researcher at the High Council of Scientific Research and a specialist in aquatic

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Drought hits the Midwest, threatening crops and the world's food supply

BY: **MATT VASILOGAMBROS** - JUNE 24, 2023 5:39 PM

Many farmers throughout the Midwest are dealing with the fallout of a drought that has harmed corn and soybean growth | Getty Images

City leaders in Storm Lake, a rural community of 11,000 in Northwest Iowa, are asking residents not to wash their cars or water their yards and gardens during the hottest part of the day. The city also has cut back on watering public recreational spaces, such as ballfields and golf courses.

These are highly unusual steps in a state that is normally flush with water and even prone to flooding. But

A war more complex than just the CO2 Problem

a short introduction (the tip of the Iceberg) (III)

Talking about sustainablity at United Nations, G8, G20, EU etc)
Media Headlines around the 2012 special UN "RIO+20" meeting

- "**Rio+20: Don't wait for disappointment from the bureaucrats:**"
  "Today's technocratic politicians will only ever lead from behind, once a critical mass of people have already shown the way" (Guardian June 1, 2012)

- "**Brazilian leader Rousseff's pardon for illegal deforesters condemned**"
  (Guardian June 1, 2012)

- "**Many treaties to save the earth, but where's the will to implement them?**"
  (Guardian June 7, 2012)

- "**Return to Rio: Second chance for the planet**" (Nature, June 6, 2012)

- "**African land grabs hinder sustainable development**"
  "Sales of forest land to corporations are dispossessing inhabitants and harming ecosystems. Nature, February 1, 2012

- "**After Rio, we know: Governments have given up on the planet**"
  (Guardian June 25, 2012)

40(?) years of Mega-meetings (United Nations, G8, G20, EU etc) with plenty of "good intentions" and even more "good words":
listen to the words from Chief Joseph (1879) http://www.youtube.com/watch?v=41UL46bvIa0

Global policies made our economy less sustainable!

Development towards sustainability? results from the last 20 (40) years

UN meetings Stockholm (1972), Rio (1992) and Rio+20 (2012)

"World Remains on Unsustainable Track Despite Hundreds of Internationally Agreed Goals and Objectives"

Guardian Headline (June 12, 2012), about the new UNEP publication "Global Environmental Outlook" (June 6, 2012) at http://www.unep.org/geo/pdfs/geo5/GEO5_report_full_en.pdf

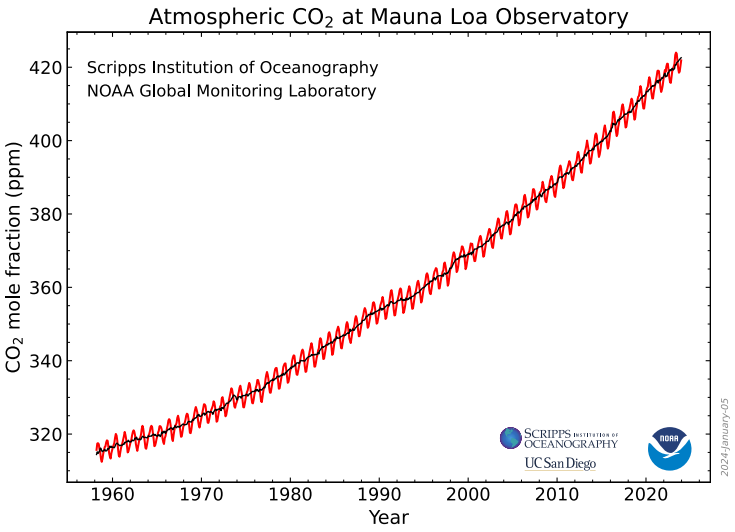
some data from the report:

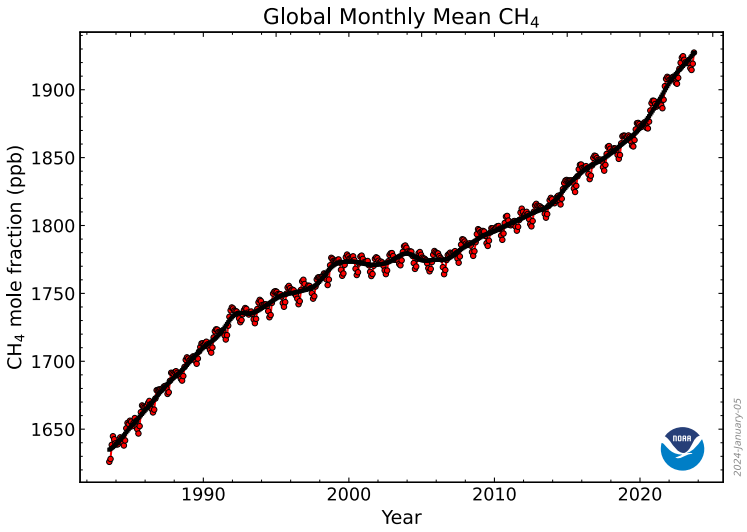
- Population increased from 3.9 billion (1972) to 5.5 billion (1992) to 7 billion 2012 (8,1 Billion 2024);
  and (without "collapse") 8.5 billion people want to live in 2032!
- Non renewable energy resource consumption almost doubled from 1972 to 2012.
- CO2 levels in the atmosphere: 330 ppm (1972) to 359 ppm (1992) to 419 ppm (2022) now 422 ppm (Dec. 2024)
- The world failed totally to reach the 8 Millennium Development Goals (MDG 2015). (replaced by 17 "Sustainable development goals" (SDG 2030) so far a total failure!).
  "The pressure on biodiversity continues to increase. Habitat loss and degradation from agriculture and infrastructure development, overexploitation, pollution and invasive alien species remain the predominant threats."
- Economic growth has come at the expense of natural resources and ecosystems.
  "Many terrestrial ecosystems are being seriously degraded because land-use decisions often fail to recognize non- economic ecosystem functions and biophysical limits to productivity."

Very few scientists are not silent! (Where are similar statements from physicists?)
"Why the Sustainable Development Goals will fail" **R. Horton June 2014:**
https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(14)61046-1/fulltext.

Global CO2 and CH4 a (≈ 25) stronger greenhouse gas

Ever heard about the methane climate catastrophe?
see for example: https://www.nature.com/articles/d41586-022-00312-2
"Scientists raise alarm over 'dangerously fast' growth in atmospheric methane"

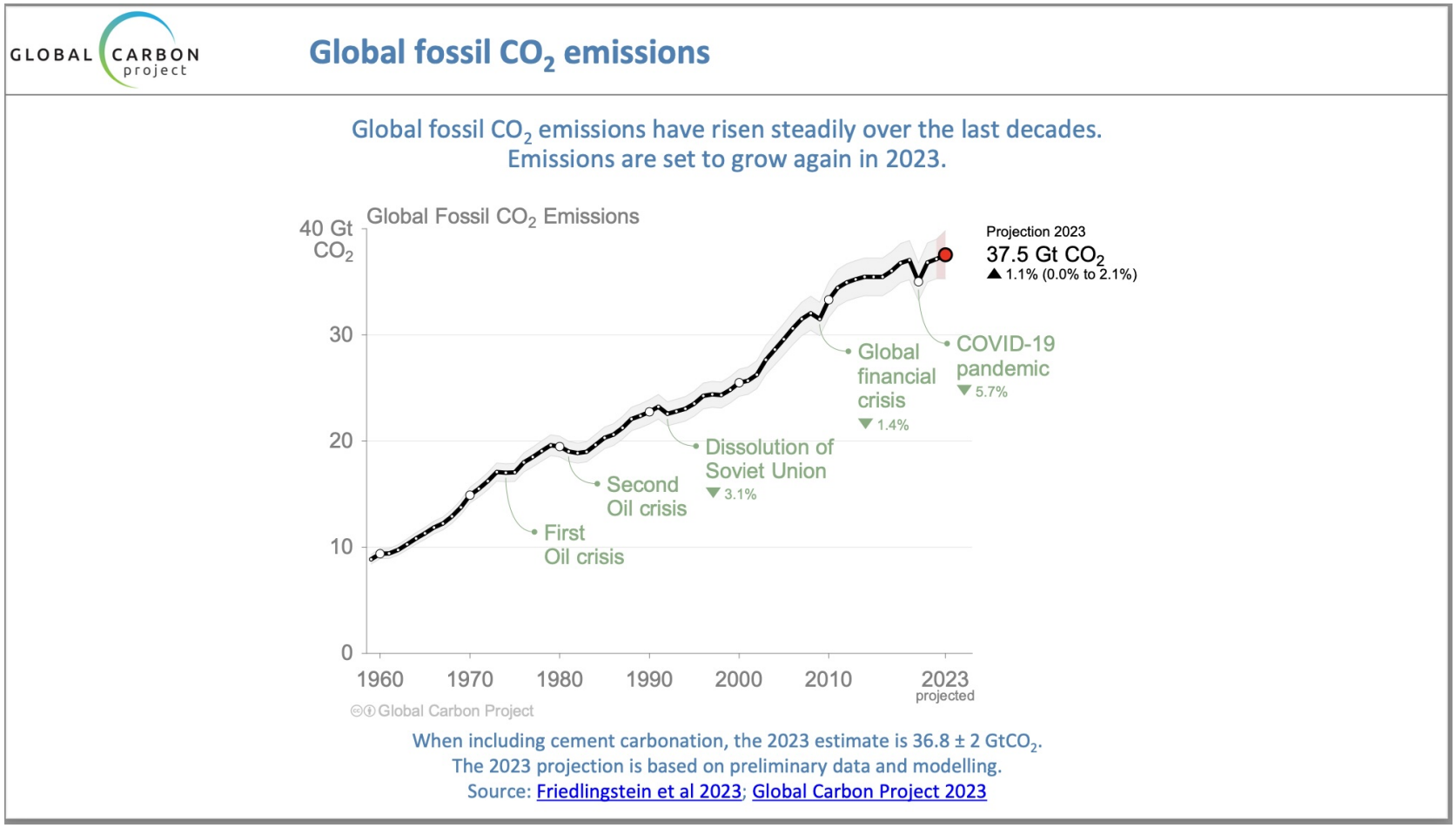




Source https://gml.noaa.gov/ccgg/trends/

Can you see that the slope is changing?
1956-1972-1992-2012 (UN Meeting Stockholm (1972); Rio UN Meetings (1992 and 2012) Can

CO2 Trend and the slope: some explanations (I)



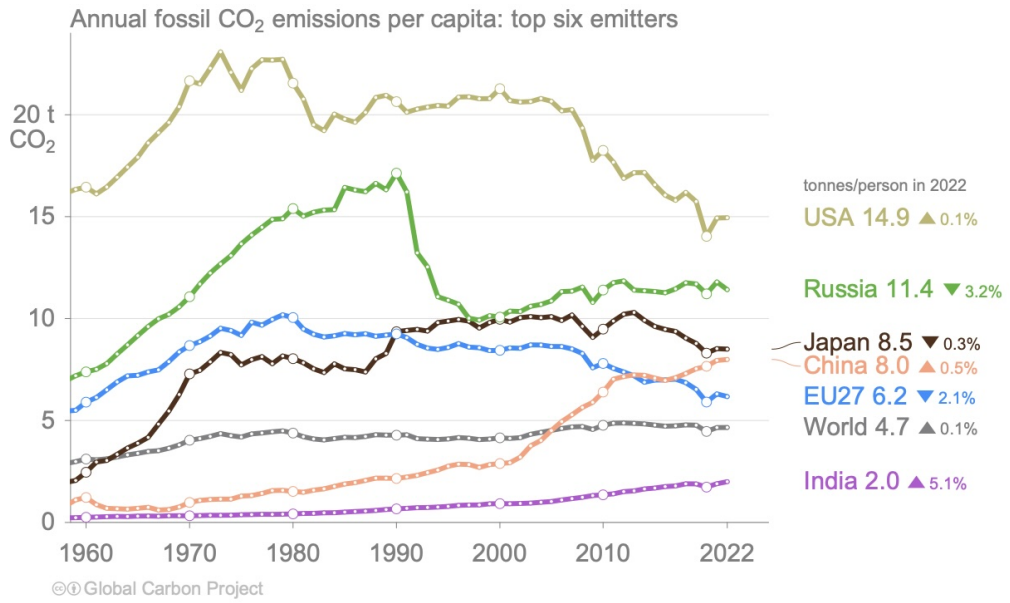
Source https://www.globalcarbonproject.org

CO2 Trend and the slope: some explanations (II)

GLOBAL CARBON project

Top emitters: Fossil CO_2 emissions per capita to 2022

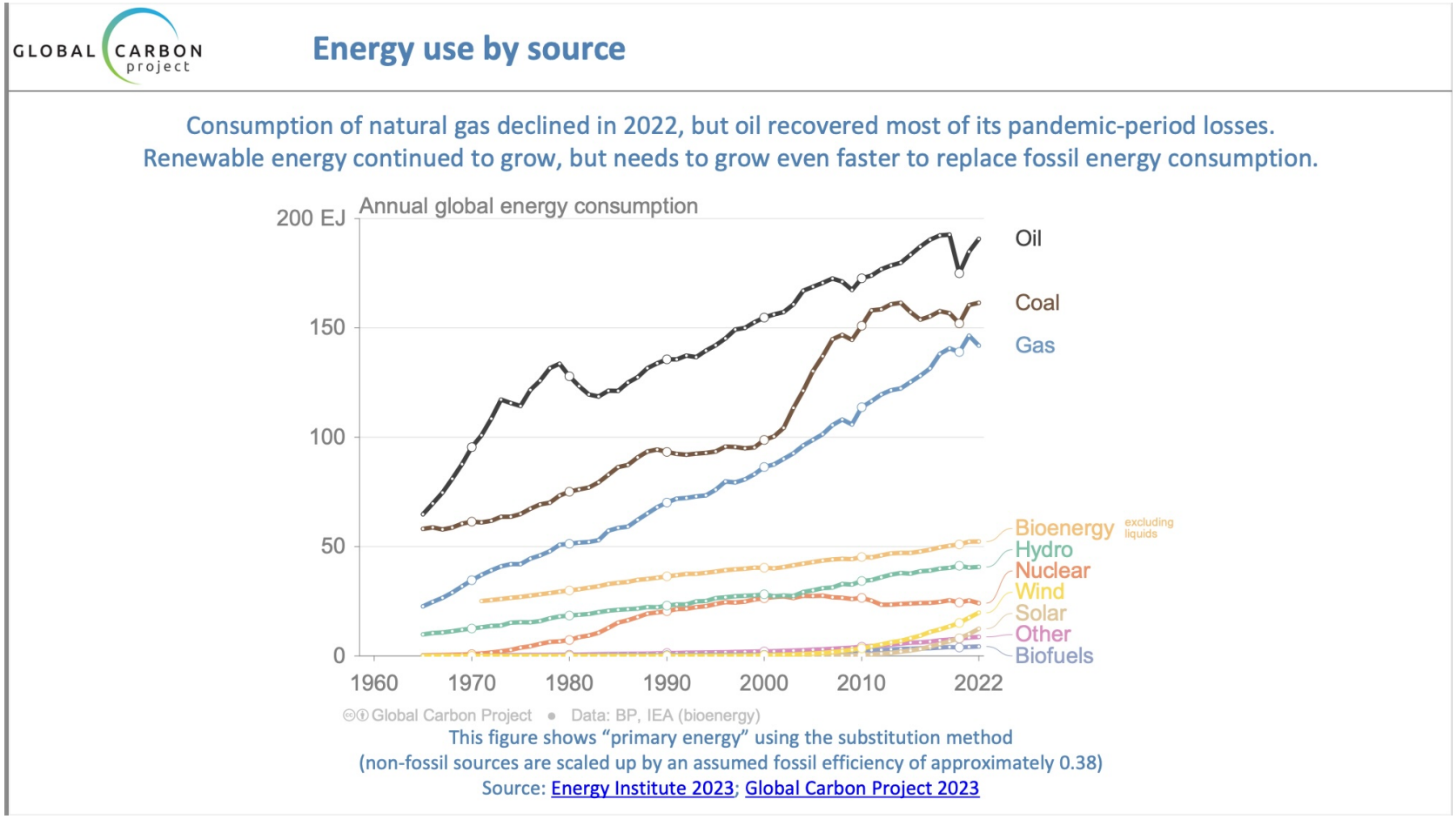
Countries have a broad range of per capita emissions reflecting their national circumstances



International aviation and maritime shipping (bunker fuels) contributed 2.8% of global emissions in 2022.
Source: Friedlingstein et al 2023; Global Carbon Project 2023

Source https://www.globalcarbonproject.org

CO2 Trend and the slope: some explanations (III)



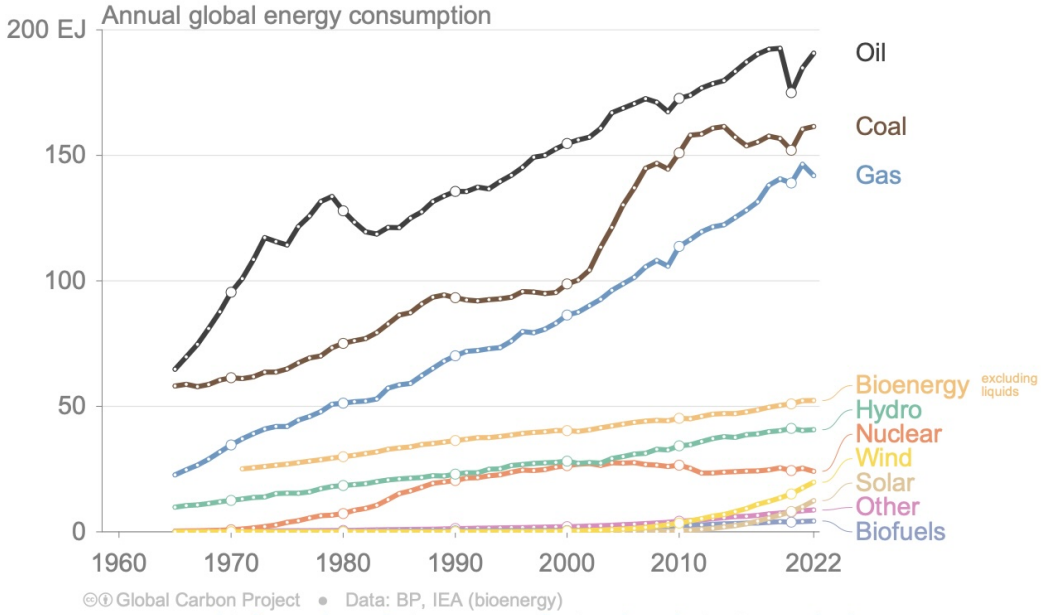
Source https://www.globalcarbonproject.org

The Human impact is far too large

GLOBAL CARBON project

Energy use by source

Consumption of natural gas declined in 2022, but oil recovered most of its pandemic-period losses.
Renewable energy continued to grow, but needs to grow even faster to replace fossil energy consumption.



This figure shows "primary energy" using the substitution method
(non-fossil sources are scaled up by an assumed fossil efficiency of approximately 0.38)
Source: Energy Institute 2023; Global Carbon Project 2023

Source https://www.globalcarbonproject.org

The Ecological Footprint: The "Earth Overshoot Day" at best wishful thinking"

Perhaps you have seen the "Footprint Calculator" (original work from Rees and Wacknagel) (https://www.footprintnetwork.org/resources/footprint-calculator/

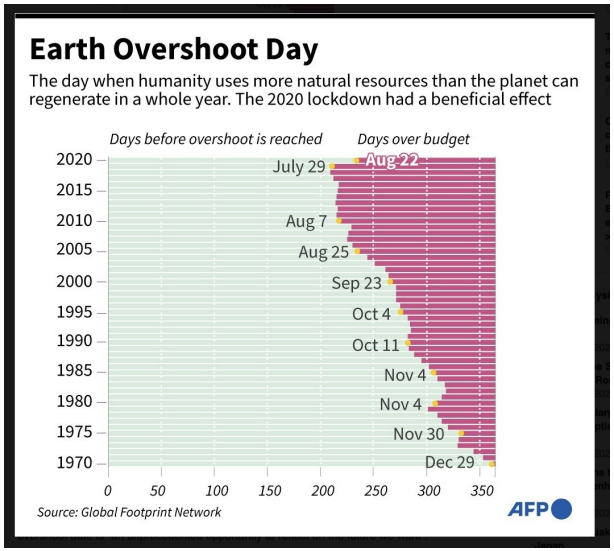


Figure from the article in Phys.Org (August 2022): "using 1.6 earth annually"
https://phys.org/news/2020-08-humans-overshoot-planetary-august.html

What is calculated and what not: See https://www.footprintnetwork.org/faq/
Quote:
"An alternative method would be to calculate the consumption of fossil fuels according to the productive area required to regenerate them, **would result in a carbon Footprint many hundreds of times higher than the current calculation."**

Understandable(?) the UN and many Organisations/Countries use the simplistic footprint concept.

But how can Scientists be silent and accept such methods and results?

The remaining natural capital and the growing destructive "Human Impact"

the I=PAT equation: http://en.wikipedia.org/wiki/I_%3D_PAT
P.R. Ehrlich (biologist) , J.P. Holdren (physicist), Impact of population growth, Science, 1971

Without the relation to the local/global Carrying Capacity (CC) for a species (or the local natural capital) the I=PAT equation gives at best only "qualitative" guidance!

a new modified quantifiable equation (M.D. 2013?):
Science of the Total Environment 472 (2014) 282-288
http://ihp-lx2.ethz.ch/energy21/sustainabilitypublished.pdf

CC (time) = CC (t=0) - Impact(t) + Restoration(t)

Impact (t) = natural reductions (volcanic eruptions) + I(=PAT)

Restoration(t) = natural Restoration(t) + human Restoration(t)

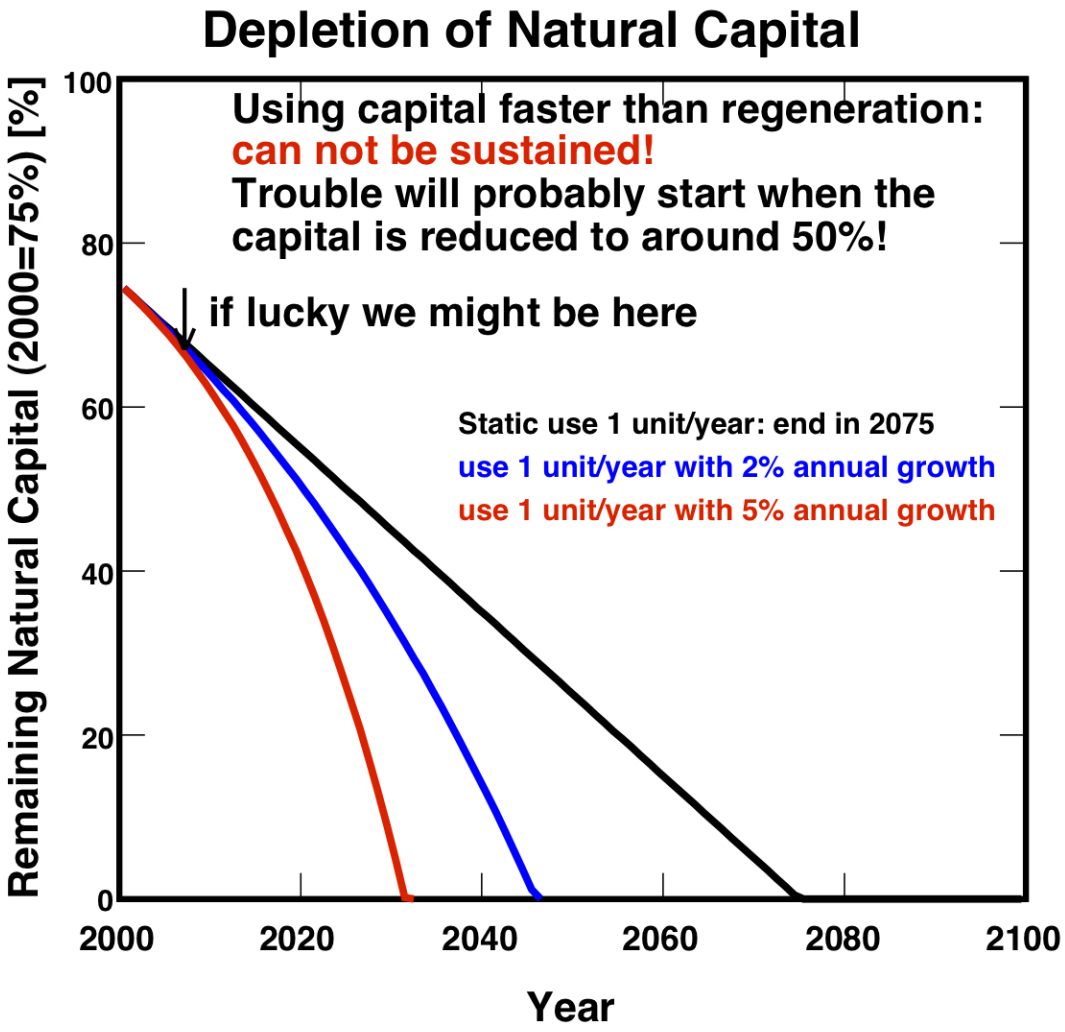
The local and global sustainability principle is violated as long as the natural capital is destroyed faster than its restoration.

Attention: humans enjoy a huge "Ghost carrying capacity"!
(possible because we use non renewable (energy) resources)

Ending the destruction of the natural capital (1)

"Ein einziges Glied, das in einer grossen Kette bricht, vernichtet das Ganze."
Johann Wolfgang von Goethe (Wilhelm Meisters Wanderjahre III, 12)

the destructive "human" Impact (I=PAT) is still growing:
How large is the remaining natural capital (locally and globally?)
Oil, perhaps the weakest chain element (many elements are damaged already!)



Ending the destruction of the natural capital (2)

"Ein einziges Glied, das in einer grossen Kette bricht, vernichtet das Ganze."
Johann Wolfgang von Goethe (Wilhelm Meisters Wanderjahre III, 12)

the biggest risks for Switzerland, Western Europe and the globalised world and how we do (not yet) react locally?

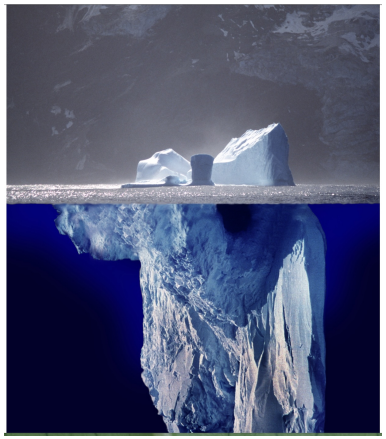
potentially most important problem: dependence on finite resources (Oil (plateau and decline)):

- **conventional crude oil: the most important energy career it seems we have reached the global extraction plateau and declining everywhere outside the middle east!**
- **industrial food supply chain (1 Cal. food = 10 Cal. from oil/gas) and the global trade (economy) is based on this cheap oil.**
- **"Conflicts" about the access to the remaining oil reserves in the Middle East (2/3 of the remaining good oil!)?**

We must learn "now" to live with less oil/energy every year (-5%/year?)!
In addition: oil "supply" interruptions can happen all the time!

The responsibility (role) of scientists and especially physicists? (I)

Physicists learned to realise that whether they like a theory or they don't like a theory is not the essential question. Rather, it's whether or not the theory gives predictions that agree with experiment. Richard Feynman, 1985



"Science promised us truth, or at least a knowledge of such relations as our intelligence can seize: it never promised us peace or happiness"
Gustave Le Bon 1895 see https://en.wikipedia.org/wiki/Gustave_Le_Bon

"I do not know the answer, but I do know that we need to talk about the (population) problem" Richard Leakey in "Call of Life, facing the mass extinction"

What could be done? How can physicists make a contribution?

I do not not know how to convince addicted people to change behaviour (and even less to convince crowds of addicted people). But..
It seems however that methods like the ones used by **"Anonymous Alcoholics"** *work!*

The responsibility (role) of scientists and especially physicists? (II)

An Idea we could try?

A scientific ethical contract should be signed by those who obtain a university degree. (and by all who work at universities and state sponsored scientific institutions) inspired by the idea of the "Hippocratic Oath"
https://en.wikipedia.org/wiki/Hippocratic_Oath
"Into whatsoever houses I enter, I will enter to help the sick, and I will abstain from all intentional wrong-doing and harm, especially from abusing the bodies of man or woman, bond or free."

Some simplistic draft wording for such a "Scientist Oath" (to be worked out.)

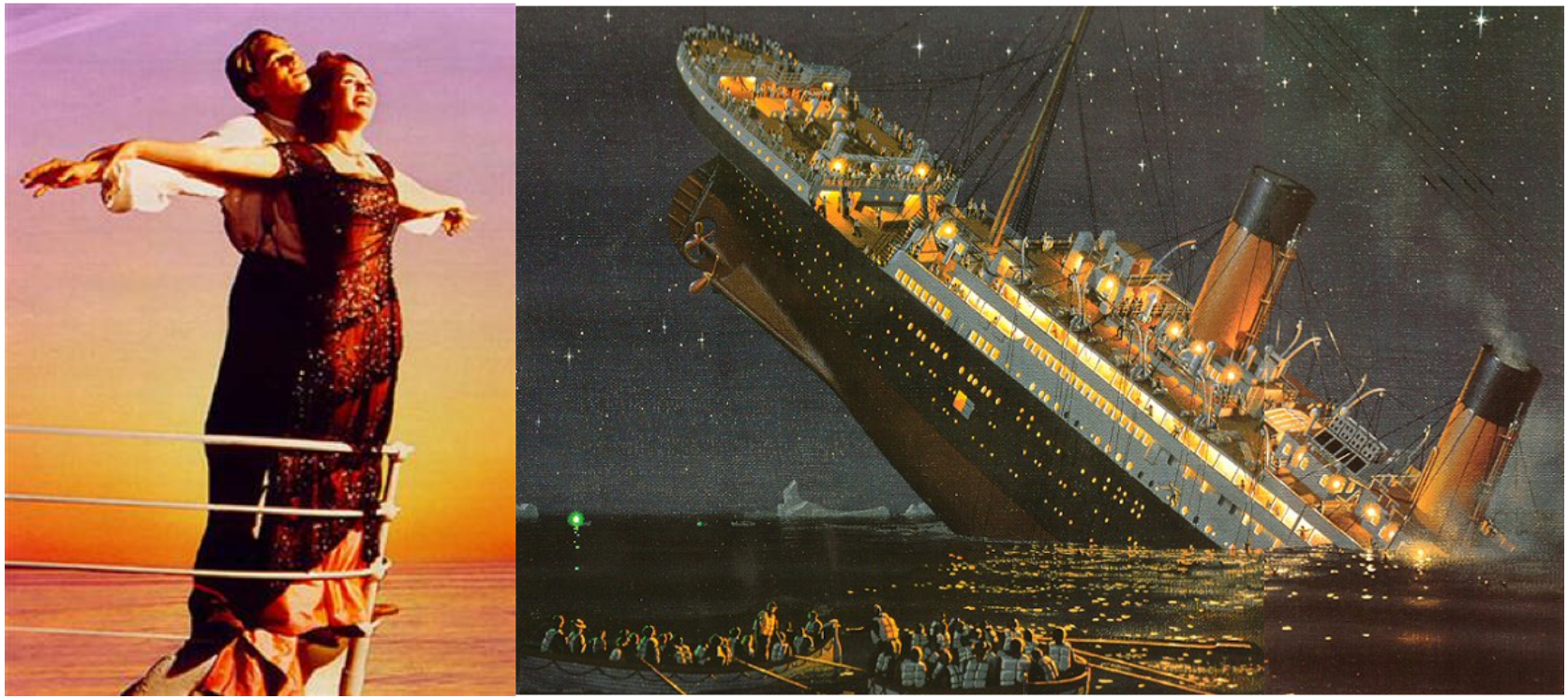
We promise to:

- To tell the truth or at least a knowledge of such relations as our intelligence can seize.
- We speak out about the destruction of the planet and the real overshoot situation.
- We contradict public lies with facts and stand up against fake solutions and promises by our political leaders and their "scientific" advisors. (like for example: CO2 storage possibilities (negative CO2 emissions), alternative ideas violating the 2nd law of thermodynamics).
- We help to reduce and stop this suicidal war against our life support system!

Our way of life is unsustainable!

Summary from my 2014 publication
http://ihp-lx2.ethz.ch/energy21/sustainabilitypublished.pdf
"In summary and acknowledging that the probability to apply a successful application of the "development towards sustainability" roadmap on a global level is very small, it can be stated, and beyond doubt, that our current policies and practices are leading, absolutely inevitably, to total collapse and to the extinction of countless species, our own quite possibly included."

Our civilisation appears as a nightmare: Titanic travel (first class)
and the loudspeakers confirm permanently: "there is nothing better and
(Tina = There Is No Alternative)



but: the "iceberg" collision has not yet happened!