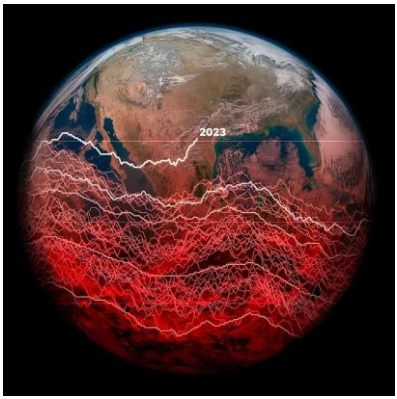
Bart Flos

OUR INNER LIMITS



Addendum VIII

The Final Taboo: Collapse

OUR INNER LIMITS

ADDENDUM VIII

The Final Taboo: Collapse

BART FLOS

Previously published by Bart Flos:

Het anti-klaagboek
Het anti-sleurboek
Het perfecte project
De kenniskermis
Vooruitkijken voor gevorderden
De mens als grens ('Our Inner Limits')

As addenda to 'De mens als grens':

Addendum I – Het begin van het einde: onwetendheid
Addendum II – De frontale confrontatie: klimaatverandering
Addendum III – Het grote probleem: overconsumptie
Addendum IV – Het laatste taboe: ineenstorting

As addenda to 'Our Inner Limits':

Addendum V – The Beginning of The End: Ignorance
Addendum VI – De Frontal Confrontation: Climate Change
Addendum VII – The Big Problem: Overconsumption
Addendum VIII – The Final Taboo: Collapse

Addendum IX –BONUS – The Next Step: Collapse Awareness
Addendum X – BONUS – The Last Resort: Collapse Acceptance
Addendum XI – BONUS – The Tough Choice: Collapse Resilience

Self-knowledge is the first step to adulthood.

Jane Austen

Civilization begins with order, grows with freedom, and dies with chaos.

Will Durant

We are only allowed to live on this planet as long as we treat all of nature with compassion and intelligence.

Aldous Huxley

First edition November 2023 (V_8)

Publisher BlijvendBeklijven Boeken
Broederwal 81
5708 ZT Helmond

www.blijvendbeklijven.nl
info@blijvendbeklijven.nl

www.demensalsgrens.nl

Author, final editing and interior: Bart Flos (www.bartflosveranderadvies.nl)
Logistics and administration: BlijvendBeklijven Boeken (www.blijvendbeklijven.nl)

ISBN: 9789083207742
NUR 600, 900, 130

Table of contents

Introduction 9
About this book 13

1. The frontal confrontation 17
2. Looking down from above 57
3. About climate stupidity 73
4. Science, truth and reality 85
5. The climate collision 127
6. The collapse 135

Epilogue 187

Appendix I Blurb of 'Our Inner Limits' 189
Appendix II 'What is your book about?' 191
Appendix III The scientific method 195
Appendix IV The concept of overconsumption 197
Appendix V Useful links 199

Blurb 204

Introduction

In 2015 I published my fifth book, *Vooruitkijken voor gevorderden – Hoop voor de toekomst van mensaap en moederplaneet* ('Futurology for Fanatics – Hope for the Future of Man Ape and Mother Planet'). It is an easy-to-read book with the same design as its predecessor *De kenniskermis – Overleven in een zee van informatie* ('The Knowledge Fair – How to Survive in an Ocean of Information'). Short chapters of approximately 800 words, provided with QR codes and TED(x) talks, nice pictures and numerous references to other interesting books.

In *Futurology for Fanatics*, I not only discuss humanity's major problems, but I also provide hopeful solutions. By (daring to) look ahead 100, 1.000 and even 10.000 years, I paint a picture of the limitless possibilities that Homo sapiens has to shape its own future. The final goal? Preserving our planet to prepare it as a home base for the exploration of the cosmos.

I still remember someone calling me a 'naive idealist' then. I defended this fiercely at the time and replied that I preferred to call myself an 'incorrigible optimist'. "Yeah, yeah," was the response, "Dream on." But it really wás true, I wás sitting on a comfortable pink cloud and I wás looking through rose-colored glasses, which turned out to be a cold, metal telephoto lens and microscope. It wasn't until I got into my helicopter, flew as high as I could and started looking down that the scales fell from my eyes.

Fast forward to 2022

Since the publication of *Futurology for Fanatics* more than half a billion people have been added to the population, we have emitted another 285 gigatons of CO2 and the atmospheric CO2-level has risen from 400 to 418 ppm. That has categorically transformed me from an incorrigible optimist to a 'confrontealist', someone who confronts those around him head-on with hard science, with observation, research, facts and evidence.

My own research over the past two years has led me to write my sixth book, my Magnus Opus, which brings together all my previous work. *De mens als grens – Over de onbuigzame barrières van ons bestaan* ('Our Inner Limits – On the Unbending Barriers of Being') is much less hopeful as a plea, unfortunately, but it still contains solutions. These are now the last solutions we have left.

I'm sorry that this time I don't share hopeful dreams about the human species, which first preserves its planet and then seeks refuge among the stars. But it is time that we recognize, acknowledge and confess what we are: social group primates and hunter-gatherers, who are extremely proficient at surviving and reproducing. At the expense of everything and everyone. It's the nature of the beast.

Fast forward to 2024

When I delivered the final manuscript of *Our Inner Limits* to my publisher in October 2022, I could not have imagined how quickly things would get so much worse. The year 2023 is the year that we passed the 'elbow' of the exponential curve. This means that from now on, events affecting the environment,

biodiversity and climate will no longer follow a relatively linear path, but a chaotic, completely unpredictable one.

Since the publication of my sixth book, I have written almost 1.000 posts on *LinkedIn*, about 60 per month, 2 every day. In order not to let them go to waste in the endless timelines, I have included them in eleven addenda to *Our Inner Limits*: four in Dutch and seven in English. In these addenda I'm taking you on that accelerating path of decline as we embark on a journey from ignorance to climate change to overconsumption and collapse.

I would have liked to tell you something different, but it's not 2015 anymore. It is no longer 1970 either, when we could still dó something. Or 1990, pretty much humanity's last chance to avoid collapse. I was forced to give up the 'hopeful future of man ape and mother planet'. In turn, I hope you'll stick with it to work your way through the addenda, because it's a story that needs to be told. Science, truth and reality now tell us that we have actually waited too long. It is too late. Collapse is now locked into the system.

With these eleven addenda, I hope to arm you not only with facts and evidence and the latest insights from the scientific community. I especially hope that it will make you and your loved ones more collapse aware and resilient to what is coming. Because our future is no longer a few hundred years away, or in the next century, or at the end of this century, or in 2070 or 2050. Our future takes place in the next ten years.

To conclude, I don't think it would be prudent to wish you 'much reading pleasure'. I wish you lots of wisdom and strength instead.

About this book

The great thing about writing a post on *LinkedIn* is that, even more so than on Twitter and unlike Facebook, you are forced to limit your message to about 500 words (3.000 characters) for a post and about 200 words (1.250 characters) for a comment. *Schrijven is schrappen* ('To write is to delete' – thank you Simon Carmiggelt) is, as it were, enforced here, accurate to the very punctuation mark and that is good. Because it forces authors to shorten the message to a length that should be manageable even for the hurried, overloaded, *I'm-very-busy*-reader, without losing sight of the core message.

This book is an addendum, a supplement to my sixth book *Our Inner Limits*. There are a total of eleven addenda, four in Dutch and seven in English. The English addenda are not direct translations of the Dutch addenda. On *LinkedIn* I often respond to English posts in English. Sometimes I translate them into Dutch, but they also stand alone. The same applies the other way around: sometimes I translate a Dutch post into English, sometimes I do not. So, if you speak the English language – and who doesn't in the Netherlands? – and if you want to be completely informed, read all eleven. (If you don't master the Dutch language, I'm glad I am able to offer you seven English addenda. The gist of my message is just the same).

At an average reading speed of about 250 words per minute, each subchapter in this book will only take you a few minutes. So, I would like to say: do you have a little less time now? Then choose a few chapter titles that appeal to you and spend ten or fifteen minutes on them. Each post stands alone and all I did was put them into a book template and made sure that the information I referenced and responded to was not lost. So, you can pick up the addenda and

put them away whenever you want. In any case, it is best to take in the information in steps. I wouldn't want you to be overwhelmed.

Because the addenda are published as PDF books, the website links remain active. So, you can step out and take a trip to related information elsewhere and look for further depth there. In addition, you can find more links and information that apply generically in the appendices.

Each of the eleven addenda is the size of an average management book, between 30.000 and 40.000 words. The layout is like a complete book, so if you prefer to read on paper, you can easily submit the PDF as a print file to a print shop and voilà, you have a physical book in your hands, *easy peasy*.

The almost thousand posts were written from October 2022 through March 2024. All posts are presented in more or less chronological order and even though I present them in the form of a book, it is still a relatively loose collection of stories, insights and reflections. So don't be surprised by repetition and progressive insight. For a more structured foundation of my view on the coexistence and collaborating of the human species, I recommend that you read my book first or check out the website, which acts as a management summary to my book.

Each addendum is classified into 11 fixed chapters:

1. *The frontal confrontation*
2. *The collapse*
3. *Economy versus ecology*
4. *The Almighty Algorithm*
5. *Distraction, deception, doubt and deceit.*

6. *The climate collision*
7. *About climate stupidity*
8. *Looking down from above*
9. *Pollution, waste and destruction*
10. *Global consultation doesn't work*
11. *Science, truth and reality*

Please note: not all chapters appear equally in all addenda.

If you've worked your way through all eleven books, you'll have taken a journey from ignorance to climate change to overconsumption, collapse and acceptance. Not all journeys are equally enjoyable to make and this journey is one of the beginning of the end, of frontal confrontation, major existential problems and the very last, ultimate taboo: the collapse of human civilization as we know it today. That, by the way, does not necessarily mean 'the end of the world': the extinction of the human species. But it has now become a serious option indeed.

Finally: while in my book *Our Inner Limits* I leave it to the dear reader to draw their own conclusions about where the human species is going, I am much more explicit in these eleven addenda, more 'right to your face' and perhaps a bit blunt here and there. Because as a self-proclaimed *confrontealist*, I passionately believe that only a frontal confrontation with truth and reality can, perhaps, open our eyes to what is coming our way.

Good luck and success!

Bart Flos, Helmond | November 2023 – April 2024.

Chapter 1

The frontal confrontation

1.1

SM523

Are we really that obtuse?

A saw a post linking to an article that promoted an extensive list of hopeful books about the environment, biodiversity and climate with different titles and subtitles, but all with the same core message:

"Yes, we made a mess of things and the situation is really bad, getting worse every day. It's understandable that we feel helpless and powerless to stop it. It invokes feelings of despair and doom. But you may rejoice, because help is on the way. Yes, believe it or not, it's nót too late, we can still dó something. But we really got to snap to it, start doing something about it right away, if we don't want things to get out of control. Here's how we go about that".

This was my response:

"Is this the best we can do?

Ok. Let's sum up:

— We have exceeded the carrying weight of our habitat for over 70 years now (*).

— We organized countless international conferences and summits on the environment, biodiversity and climate.

— We did effectively nothing, *zilch*, with the conclusions out of these conferences.

— We keep subsidizing the fossil fuel industry.

As a consequence:

— We are pushing global warming way beyond 2C/3C of warming, creating a 'runaway climate' and 'hothouse earth'.

— The atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have already entered a state of cascade failure, the prelude to suprasystemic collapse.

— The jetstream is meandering, the oceans are overheating, acidifying and deoxygenating, the global ocean currents are destabilizing.

— The extreme weather and climate disasters washing over our planet will increase in frequency and intensity.

— Our technological infrastructure, most of which is above ground, is extremely vulnerable to the elements, especially when those 'elements' get destructive powers.

Which implies:

— Large parts of our planet will become uninhabitable for human life.

— We drag countless innocent species and plants with us in our own accelerated extinction.

— Billions of people are forced to migrate away from the shores and towards the arctic regions.
— Conflict, crisis and war will ensue.
— Catastrophic releases of methane deposits due to permafrost thaw will eventually render our atmosphere toxic for millions of years.

Luckily, now we have this list of books. We're saved! Hallelujah! Let's all read them and do what they say. Let's come together and save our planet so it remains livable for us, our children and our grandchildren. But wait. This book is 3 years old. That one is 5 years old, and look, this one dates back even 15 years. But they all dictate what we need to do, they all have the solutions inside. And look, some of these books refer to other books that are 20, 30 or even 50 years old. Wait, what the h…?

Really? Are we really that obtuse?"

(*) Overshoot or overconsumption: when a population exceeds the carrying capacity of its habitat. Environmental pollution, destruction of the biodiversity and climate change are symptoms of overshoot. Overconsumption is always met with collapse; it's locked into the system. If you're interested in the concept of overshoot, see Appendix IV.

1.2
SM532
On the difference between promises and reality

I once again saw a report on what needs to be done to reduce greenhouse gas emissions in general and CO2 in particular to 'net zero'. They always look the same: on the left the historical CO2 emissions and on the right the different 'emission reduction scenarios' based on intentions and promises.

It provokes a derogatory snort from me (my apologies), because the historical trajectory of CO2 emissions on the left shows a clear gradual increase in recent years, consistent with global population growth and GWP growth (Global World Product, the sum of all GDPs), while most of the planned future reduction scenarios on the right (based on intentions and promises of the 200 countries of the world) suddenly and miraculously go steeply downwards, in the direction of the 'net zero emissions' targets.

This was my response:

“It is mind-boggling that we keep harboring the hope that we’ll still be able to stay below 2C of warming, let alone 1,5C. Such a graph is the pinnacle of hubris, ignorance and stupidity of the human species.

— We've had 27 international climate conferences (COP) and none of them made the slightest difference. None. The 28th COP is chaired by an oil sheik, for crying out loud!
— None of the climate reports, analysis, books, articles and posts ever produced have made any difference. None of them broke our habits.
— The world population is at 8 billion people, growing to 10 billion in 2050.
— According to the collective economic plans of the 200 countries of the world, the emissions of CO2-equivalent will increase from 54 gigaton in 2022 to 62 gigaton in 2050.
— The atmospheric CO2-level is 420 ppm, rising to 500 ppm in 2050 (preindustrial levels were at 280 ppm).
— The atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have entered a state of cascade failure, the prelude to suprasystemic collapse (*).

And we still think that by some great miracle we'll be able to steeply decrease greenhouse gas emissions? That we suddenly come to our senses and voluntarily decline, reduce and diminish? Really?"

(*) Environmental pollution, biodiversity loss and climate change are symptoms of overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat. Overconsumption is always met with collapse; it's locked into the system. If you're interested in the concept of overshoot, see Appendix IV.

1.3
SM548
Is this the best we can do?

I saw a post with the following header:

"US Electric Vehicle Sales Reach Breakthrough Pace: 10 years to sell the first million EVs, just ONE year for the third million. What an incredible pace!"

This was my response:

"Now wait just a minute here. Apparently, we can't think of anything better then replacing the 1,6 billion combustion engine vehicles in the world by EV's. It requires fossil fuels to build them, rare metals to fuel them, people to maintain them. It will keep the current infrastructure intact — roads and highways, bridges and tunnels, power stations, intercity connections — and it will keep creating traffic jams, requiring móre roads. It is classic inside the box thinking. Thinking outside the box, however, would mean:

— Reducing the total number of vehicles to a few hundred million, whilst scaling up public transportation ánd returning half of the transportation infrastructure back to nature.
— Reducing world population with 1% each year (instead of the current 1% yearly increase), bringing us to 6 billion people in 2050 (instead of 10) and 1,3 billion by 2200 (the ideal number).

— Realizing that environmental pollution, biodiversity loss and climate change are mere symptoms of overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat (*).

Meanwhile, we still add 150 million tons of CO2-equivalent to the atmosphere daily, rising to 170 million tons in 2050.

Is this the best we can do?"

(*) See Appendix IV.

1.4
SM577
Well, it could have been worse, right?

I have argued on a regular basis that we have produced countless books, reports, analysis and conferences on the topics of environmental pollution, biodiversity loss and climate change over the past half century, but that none of them have had any influence at all on (1) the increasing global greenhouse gas emissions and (2) global atmospheric greenhouse gas levels, (3) the rising average global surface temperature, (4) the growth of the GWP (the Global World Product, the sum of all GDP's, Global Domestic Product) and (5) the growing world population.

Somebody commented as follows:

"As I agree in principle with you, but I am going to argue that climate reports, books, activism do have an effect. Without all this effort the situation would be even worse. It is not good now and there are significant big problems – but we could have 3% or more of emissions growth year on year, instead of the 1% now."

This was my response:

"I'm sorry, but your reasoning is flawed. Forgive me for being blunt here. One of the weakest arguments, maybe the weakest, which can be brought up in any kind of long-term development, where a large system is on track of collapse, is saying that 'if we had done nothing, it could have been far worse'. The

symptoms of that kind of reasoning are always similar: isolating specific statistics, omitting and twisting data, focus on minute details and local levels, false comparisons and window dressing.

In 2022 global CO2-emissions we're at 37,5 gigaton, an all-time high. Based on the economic plans of the 200 countries of the world, this will rise to 43 gigaton in 2050. That's even léss than 1% of increase per year, because that would bring us to 49 gigaton per year. But that's irrelevant too.

Cumulative global CO2-emissions are 1.500 gigaton, rising to 2.500 gigaton in 2050. CO2 stays in the air for thousands of years. Current atmospheric CO2-level is 420 ppm, rising to 500 ppm in 2050. Preindustrial levels were at 280 ppm. The jetstream is meandering, the oceans are overheating, acidifying and deoxygenating, the ocean currents are destabilizing.

Those are Earth's Management and Control Systems that we have been overloading for over 70 years now. There's no on/off switch here, no reset button or an edit/undo function. Once such a large and complex suprasystem starts to degrade, there's no stopping it. It will trigger massive disruptions until it reaches a new equilibrium. 2023 is the year we passed the 'elbow' of the exponential curve. We have waited too long, it's too late. Our suprasystem will collapse.

The atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have entered a state of cascade-failure, the prelude to suprasystemic collapse. The extreme weather and climate disasters that currently wash over the planet, will not let up, they will keep growing in frequency and intensity. And what are we doing? We keep pumping greenhouse gasses into the atmosphere at a rate of 150 million tons of CO2-equivalent per day, polluting the environment with

synthetic chemicals and destroying the biodiversity with mass special extinctions.

And we're focusing on renewable developments, that still need fossil fuels to produce, whilst crying ourselves to sleep at night, mumbling that 'if we hadn't done anything, it would have been far worse!' I honestly do not believe that we understand what's coming our way.

I'm not just being overly dramatic here. The concept of overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat, is well-known and intensively researched. If you're interested, see Appendix IV.

1.5
SM578
Why not write a strongly worded letter?

I saw yet another passionate speech floating by in my timeline, describing the dire situation that we're in with manmade climate change, that we have made a mess of things and that it has gotten worse at every turn, but that it is not too late, we can still do something if only we start now.

This was my response:

"Strong speech. Good words. All true. Well said. To the point. Excellent job. Al Gore made a similar speech. Greta Thunberg did too. Years ago. Also great.

We have produced countless climate books, reports and analysis containing powerful speeches, written by clever, knowledgeable people. We have organized countless international conferences on the environment, biodiversity and climate. People spoke on these events powerfully, passionately and frantically. Exceptionally good speeches indeed. Emotional. Dramatic. With all the good words. The climate COP28 is chaired by an oil sheik, and I wish I was not making that up. If it wasn't so serious, we would all have a good laugh about it and carry on.

This oil sheik is going to give a speech too. Undoubtedly well-articulated, powerful, with all the right words. He might even address the worsening situation, you know, with the climate and all, outside, where the weather is and climate disasters rule the planet. After the COP28, scandals will arise. That

despite the climate shit getting worse every day, the fossil fuel industry will have lobbied in the backrooms to power down the rhetoric, economize and politicize the final report.

Somebody will probably give a powerful speech about that too. Or write a strongly worded letter.

1.6
SM584
Best books ever written not changing anything

I saw someone posting a list of 'best sustainability books ever written according to Goodreads - Part 2'. This was my response:

"Yes. Excellent books. And so many! I could easily add another 300 from the bibliography of my latest book and then add it to the pile. Now imagine having a list of all the books written about the environment, the biodiversity and the climate over the past half century, since we became aware that we were exceeding the carrying capacity of our habitat, a concept called overshoot or overconsumption.

Look, all of these books have a publication date. Now, please plot these dates as a marker in the graph I added in the comment section. What conclusions do you draw? And where do you think this is going? If you were to extrapolate the trend of this graph, say a few decades into the future, adding all the new books coming out and all the international conferences being organized, like the COP28 in November, what would happen, do you think?

There's no lack of in-depth analysis, well-meant initiatives, tantalizing technologies, brilliant ideas and elaborate project plans — we've got them all. And we've been having them for more than half a century now. At what point, do you think, will the global emissions of greenhouse gases, the global

atmospheric greenhouse gas levels and the global average surface temperature start to go down? Just asking."

1.7
SM589
Why are we still bothering?

If you have 23 minutes left — you probably won't, but still — please watch this video of Jonathan Pie, world famous for his brilliant rants on any topic of importance in the news of today. It is a hilarious report in the form of a short film, covering the COP26 in Glasgow in 2021, the Conference of Parties, a summit attended by the countries that signed the United Nations Framework on Climate Change (UNFCC), a treaty that came into force already back in 1994.

It's hilarious, because Jonathan Pie is at the mic and I would absolutely encourage you to look him up. I love his rantings, voicing the anger and frustration of many people where it pertains to national and global politics and economics. He's the best. But it's only hilarious because it is so bloody serious. I wish we could all have a good laugh about the climate and then wave it away and simply move on with our lives. But we can't.

Now why would you spend 23 minutes of your precious time watching this video about COP26, happening already two years ago? That's because we have another one coming. COP28 is scheduled this year in November, in Expo City Dubai in IAE, the United Arab Emirates. It will be chaired by Dr. Sultan Ahmed Al Jaber. And yes, he's an oil sheik. I try to say that with the least bit of irony, cynicism and sarcasm as I can possibly muster. You'll understand what I'm saying once you have watched the entire video.

We've had 27 COP's already and the results of these international conferences, hosting the leaders of all 196 countries of the world, were staggering, amazing and astonishing every time. Because the results of all of these 27 COP's were fuck all. Nothing changed. And now were at it again.

Has nothing changed? Really? Nothing at all? We'll, it's true in terms of real commitments, real actions and real achievements on eliminating the global burning of fossil fuels, independent on national cultural, political and economic interests and with real imposable sanctions at noncompliance. Yeah, nothing's changed. But also: éverything has changed!

This year, 2023, is the year we have passed the 'elbow' of the exponential curve. The atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have entered a state of cascade failure, the prelude to suprasystemic collapse. The jetstream is meandering, the oceans are overheating, acidifying and deoxygenating, the ocean currents themselves are destabilizing. That will set our priorities straight and get things moving, for sure, right? Nów our leaders are finally going to show decisiveness and resolve at the 28th COP, right? This will change éverything, right?

What do you think?

https://youtu.be/23nDxPSIoAw?si=0jcO51Eg5bwsDeCI
[YouTube: Jonathan Pie: The World's End]

1.8
SM600
What if I provoked the matter just a tad?

A saw a post from a climate scientist, explaining the reasons, causes and consequences of the unprecedented heat in September 2023, on top of all the other extreme weather and climate disasters that washed over the planet that year. It was a well-balanced, carefully nuanced post, as you might expect from a climate scientist, explaining the El Niño — La Niña phenomenon, the influence of solar activity, the decrease of pollution particles in the air (all with only tenths or hundredths of a degree impact on global warming), bad luck/coincidence and, naturally, climate change itself.

The post was concluded, and I quote:

"Humanity must accelerate the path to net zero to prevent more record-shattering global temperatures and damaging extreme events!"

Right. This was my response:

"Thanks for your post. I follow your work with great interest. You're being overly cautious in your analysis, which I recognize. The IPCC applies the same kind of caution, since it has to carefully walk the line between ratio/science and politics/economics. However, with all that 'caution and care', the less educated reader might think 'ok, it's bad, but not thát bad yet. It might all swing back to milder conditions soon'.

So, what would you say if I provoked the matter just a tad:

1 — It's too late, we have waited too long. We have passed the 'elbow' of the exponential curve' and now went beyond the point of no return, as the ultimate consequence of overshoot (*).
2 — From now on events won't follow a relatively linear path anymore but a chaotic, totally unpredictable one.
3 — The atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have entered a state of cascade failure, the prelude to suprasystemic collapse.
4 — Extreme weather and climate disasters will further increase in frequency and intensity, creating mass migrations, collapse of the global food supply chain and crisis, conflict and war.
5 — The accelerating deterioration of our habitat will not occur over the coming 50 or 100 years, but already within the next 10 years.

What would you say? Would you concur?"

(*) Environmental pollution, destruction of the biodiversity and climate change are symptoms of overshoot or overconsumption: when a population exceeds the carrying capacity of its habitat. If you're interested in the concept of overshoot, see Appendix IV.

1.9
SM616
If we'd only stop emitting greenhouse gases at once, now, everywhere

I saw a post linking to a report that speculated on the global warming trend áfter (read: *if*) the world reaches 'net zero' emissions in 2050. It showed various models and graphs of the average global average surface temperature, immediately after all 200 countries of the world stopped emitting greenhouse gases completely. If suggested that the temperature would start to level out and decline almost immediately.

The author of the post wrote:

"It looks like there's still hope and we didn't cross the point of no return".

This was my response:

"I find this report of staggering ignorance. It's wishful thinking to the n-th degree. I can't believe we're still falling for this narrative, despite the solid science behind it. But the science is only solid if the basic premise is met: that human society will reach 'net zero' in 2050. It will not. It's a pipe dream.

Let's look at some other facts, shall we? In 2022, CO2-emissions of fossil fuels and industry were 37,5 gigaton. Based on the combined economic plans of the 200 countries of the world this will rise to 43 gigaton in 2050. Current

atmospheric CO2-levels are at 420 ppm, rising to 500 ppm in 2050. Preindustrial levels were 280 ppm. None of the countless climate books, reports, analysis and conferences that we have produced, have éver had any effect on the increase of greenhouse gas emissions. The COP28 is chaired by an oil sheik, for crying out loud!

Current world population is at 8 billion people, growing with 1% per year to 10 billion in 2050. All of these people will want to get rich, healthy, happy and grow old. Nobody wants to decline or reduce. Everybody wants to at least keep what they've got, preferably get a little bit more.

Where do yóu think this is going?

1.10
SM617
‘We should build a bridge instead of a trench’

I saw a post linking to a TED(x)-talk about climate change, stating that ‘we shouldn’t dig a trench, but build a bridge instead’, that ‘empathic communication is key’, that ‘tackling climate change isn’t just a science problem, but a psychological and social one too’ and that that there ‘five key lessons to be learned’.

This was my response:

“Yep, this is all true. Can’t argue with it. Or can I?

Look, there’s something really scary going on here. We keep producing books, analysis, reports, conferences and TED(x)-talks about climate change, as we have for over half a century now. None of this has éver changed the increase of greenhouse gases. We’re like rabbits gathering in the middle of the highway, staring mesmerized at the bright headlights of incoming traffic. Are we really that obtuse?

This is not about theory! We have all the knowledge and information we need to tackle this problem. We’re just not dóing it. And there’s a reason for it too. It lies not in our cognitive abilities or our technological prowess. It lies in sheer numbers. We Homo sapiens, the human species, we were never meant to be

with billions. We were meant to roam the savannas in small social groups of say, 25 people each.

The current world population of 8 billion people is growing with 1% per year, bringing us to 10 billion in 2050. All of these people will want to get rich, healthy, happy and grow old. Nobody wants to decline or reduce. Everybody wants to at least keep what they've got, preferably get a little bit more.

What do yóu think is going to happen?"

1.11
SM629
Why we shouldn't beat around the bush

I saw a post referring to an article in The Guardian with the following title:

"Earth's vital signs [are] worse than at any time in human history, scientists warn".

This was the article:

https://amp-theguardian-com.cdn.ampproject.org/c/s/amp.theguardian.com/environment/2023/oct/24/earth-vital-signs-human-history-scientists-sustainable-future

The post started as follows:

"Well, this was a sobering read. Not surprising, but it never fails to get my heart racing: 'Earth's "vital signs" are worse than at any time in human history, an international team of scientists has warned, meaning life on the planet is in peril.' Their report found that 20 of the 35 planetary vital signs they use to track the climate crisis are at record extremes. As well as greenhouse gas emissions, global temperature and sea level rise, the indicators also include human and livestock population numbers."

This was my response:

“It is really sweat that we think we’re going to get to the end of this century with some kind of human civilization running as it is today. Look, most of the progress on the measurements put forth in this dire reporting is accelerating. If you extrapolate these trends, the consequences are much more destructive to human society than we dare to admit. We are only at 1,2C of global warming and look what that brought us this year. If we think that is going to ease up, we’ve got another thing coming.

Let’s not beat around the bush here. We have been exceeding the carrying capacity of our habitat for over 70 years now (*) and something’s gotta give. This year, 2023, we will already breach the 1,5C global warming barrier. Look at those graphs in this reporting! It’s mind boggling. We’re not breaking records hundredths or tenths of a degree; we’re breaking them by multiple degrees at once. If that doesn’t scare you, I don’t know what will.

We’re in for a treat. The way we are going, things will fall apart, not in a couple of hundred years, or next century, or the end of this century, or in 2070, 2050, 2040, but within the next decade!

It’s happening nów, to us, in real time.”

(*) A concept known as overshoot or overconsumption. Environmental pollution, destruction of the biodiversity and climate change are symptoms of overshoot or overconsumption: when a population exceeds the carrying capacity of its habitat. If you’re interested in the concept of overshoot, see Appendix IV.

1.12
SM633
The last thing we should do is to be reticent

I saw a post linking to an article about the scientific community being so reticent[1] about what's really going on with the environment, the biodiversity and the climate. That we rely heavily on a large scientific community with many fields of expertise, doing the science, simultaneously trying to be as careful as possible about the findings.

Scientists are, in general, humble, careful and nuanced in nature. Climate scientists in particular don't exaggerate, sensationalize or scaremonger their findings. They use complex and comprehensive models to crunch the numbers and process the data and sometimes these models unwillingly omit data and obscure, cloud and muddle the overall picture.

If that happens, we're screwed. Because if we miss the total end result, the ultimate average, the highest possible outcome, our living environment will collapse beneath our feet whilst we are still looking through our telephone lenses and microscopes.

This is the article in question:

https://mailchi.mp/caa/to-understand-and-protect-the-home-planet?e=6d8bbf98cf

This was my response:

"That's a rather chilling read[2]. I had a vision of a post-apocalypse meeting, with the last members of the IPCC, COP/UNFCCC, WMO, EPA, CAN, UN, WWF, FFI, UNEP, IUCN, ICF, WCS, GAHP, ESGP, EEA, RAN, GFN, EDN, NRDC, CRP, C40/CCLG, EDF, GCI, Greenpeace and Extinction Rebellion, that argued climate change mitigation until they were blue in the face, for decades, now sitting around the campfire in ragged clothes, hungry, tired and hurt, shouting to each other 'I told you so!'

What's wrong with us? We know exáctly what's going on with the environment, the biodiversity and the climate. We know precisely what we need to do to stop our habitat from being destroyed right beneath our feat[3]. We have analyzed our problems to the bone, argued them, rewritten them, produced countless books, articles, analyses, conferences and summits.

And still we're pumping 150 million tons of CO2-equivalent into the atmosphere every day.

What madness."

[1] *reticent* [adjective]: not revealing one's thoughts or feelings readily.

[2] I know this might be the understatement of the century, but over the past year I wrote over 600 posts about our existential predicament, some blunt and explicit, with the facts and figures right there, but it doesn't seem to matter one iota. We truly don't have a clue what's coming our way.

[3] That concept is called overshoot or overconsumption. Environmental pollution, destruction of the biodiversity and climate change are symptoms of overshoot: when a population exceeds the carrying capacity of its habitat.
If you're interested in the concept of overshoot, see Appendix IV.

1.13
SM638
When all you have is a hammer…

I saw a repost on one of my posts in which I was pretty blunt about the reality of life as we live it today and about what's coming our way. In my original post I argued that, and I quote "it's pointless to speak about human abstract constructs such as GWP, GDP, economic growth or decline, profit and loss, accumulated wealth, poverty or inequality, when there's no structured, stable and contained human society to interpret them in."

But the author of the repost counter-argued me with economic arguments! He really did. He went on about free and fair markets, international import and export, corruption in relation to systemic economic stagnation in Europe and the USA, and so on.

I guess it was another proof of the saying that 'when all you have is a hammer, everything looks like a nail'.

This was my response:

"I'm still going to be blunt, perhaps even a tad more:

Economic stagnation is irrelevant. The economy is irrelevant. Any kind of human rule, regulation or law is irrelevant. We, as the dominant, highly technological species on this planet, just don't get it. All of our abstract constructs governing our societies are irrelevant.

Why do I say 'irrelevant' with such derogatory confidence? Because we're headed for societal collapse. In a collapse scenario all gloves are off, all rules, regulations and laws go right out the window (*).

War is an example of collapse. When in war, societies die in the propaganda, the violence and the destruction of lives and property. But war rarely involves áll nations and people on this planet. Even the two world wars left countries and regions unaffected. Not so with suprasystemic collapse as a result of overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat (**).

We've been at it for 70 years now and something's gotta give. Something ís giving. Suprasystemic collapse, where the suprasystem is planet Earth with all its inhabitants, involves all species, áll flora and fauna. We have passed the 'elbow' of the exponential curve. It's out of our hands now. We've waited too long, it's too late. The Perfect Storm is coming."

(*) Don't believe me? I'm not just spit-balling or fearmongering here. This is the scientific underpinning:

https://climateactionaustralia.wordpress.com/2023/10/19/10-reasons-our-civilization-will-soon-collapse/ ['Ten Reasons Why Our Civilization Will Soon Collapse']

(**) Environmental pollution, destruction of the biodiversity and climate change are symptoms of overshoot or overconsumption: when a population exceeds the carrying capacity of its habitat. If you're interested in the concept of overshoot, see Appendix IV.

1.14
SM640
Letter to a concerned citizen

Dear fellow human being,

Good to hear from you again. I understand that you are worried about our existential predicament and that you have started an initiative that addresses our problems, provides solutions and gives advice on how to implement them. That's commendable, but it will be futile. Please allow me to explain, but I'm afraid you're not going to like it. So, I apologize in advance.

First of all: I have written over 600 posts since the publication of my latest book in December 2022. I will publish them in eight free pdf-books in November this year (four in Dutch and four in English), so they won't get lost in the endless timelines of the social media. I'm saying this, because if you have read, say, the last 20 or 30 of my posts you will knów what I'm going to say now.

— *We don't have anything to expect from 'the powers that be', that are doing the most damage to our habitat. The minority has the power, the capital and the influence to keep the neoliberal, capitalistic, consumeristic, growth-economic free market going at the expense of the powerless minority. They have nothing to gain from decline or reduction. They will keep at it until the very last moment. We know that for over 70 years now and the evidence is abundant.*

— *There is nothing we can do about accelerated global warming (anymore). It is now running out of our control.*
— *The only way forward is the suprasystemic collapse of our global infrastructure as we know it today. That's locked into the system.*
— *There's not going to be a new system that replaces the neoliberal, capitalistic, consumeristic, growth-economic free market. It's far too late for that. We've had our chance and wasted it.*

Bottom line is, and yes, I dare say it: we have waited too long, it's too late. 2023 is the year we passed the 'elbow' of the exponential curve. The atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have entered a state of cascade failure, the precursor to suprasystemic collapse. It's now locked in.

The jetstream is meandering, the oceans are overheating, acidifying and deoxygenating, the global ocean currents are destabilizing. Those are Earth's main Management and Control Systems and there's no on/off switch, no reset button, no edit/undo function. The melting of arctic ice is off the charts, temperature anomalies are off the charts, the rapid intensification of hurricanes is off the charts.

I honestly believe that we don't have a clue to what's coming our way. Passing the 'elbow' of an exponential curve means that from here on out events won't follow a relative linear path anymore. Events will become chaotic and totally unpredictable.

In general, we don't have a clue what exponential growth (or decline) means. The latest research shows that global warming ís accelerating. The climate is far more sensitive to climate change than previously thought. What we don't

get is that events will get worse every year, every quarter, every month, every week, every day.

Extreme weather and climate disasters will repeat themselves within time frames that will get shorter each interval. Insurance companies won't insure for that anymore and cumulative damages will increase exponentially as well, faster than we can hope to repair our infrastructure. We mustn't forget that most of our infrastructure is above ground, exposed to the ever more hostile elements. Our power lines, solar panels and windmills will crumble as the extreme weather events and climate disasters increase in frequency and intensity each time interval.

And what do we do? We start wars. We tug to the political extreme right. We deny climate change. We ramp up the excavation of fossil fuels. We cheat with carbon credits. We allow the COP28 to be held in Dubai and to be chaired by an oil sheik, for crying out loud!

We still multiply like rabbits. Each year we add 80 million new specimens of the species Homo sapiens to the equation. Each of them wants to get rich, healthy, happy and grow old. Nobody wants to decline or reduce, everybody wants to keep at least what they've got, preferably at little bit more. It's simply unsustainable.

From here on out its going to get a whole lot worse and it will never get better again. Not in our lifetimes. This generation — yep, that's us! — will see the beginning of the end, our children will live on the edge of hell and our grandchildren will inherit a world devoid of prosperity and wellbeing. Accelerated global warming models now predict we will pass the average 1,5C

marker within a few years (the year 2023 will hit 1,5C of warming within a full year for the first time) and we'll reach 2C-2,5C by 2050. That will unleash hell.

It will trigger all remaining tipping pints, leading to a 'runaway climate' and a 'hothouse earth'. The road towards that point will be of accelerated, accumulated misery, all over the planet. Nobody will be spared, nowhere. By 2050 things will have become só bad that we will start to decline to preindustrial times (the state we were in at the beginning of the 19th century) before the end of the century, maybe already as soon as 2070! If you look at the acceleration graphs it just grabs you by the throat.

Most of the extreme weather and climate disasters that wash over our planet today weren't even expected before the end of the century. But here we are, they are happening in real time, in the here and now. And still we believe we can intervene somehow, make it stop, or let up and then go away somehow. But it won't. We are meddling with powers way beyond our control.

And stíll we add 100 million tons of CO2 into the atmosphere daily. CO2-emissions of fossil fuels and industry will likely be a gigantic 40 gigaton this year (after the highest level of 37,5 gigaton was reached in 2022). Global atmospheric CO2-levels are at 420 ppm, rising to over 500 ppm in 2050. And we just keep on going like there's no tomorrow.

Again, I truly don't believe that we understand what accelerated decline means. We just can't believe that it will only get worse and worse and worse. And it will. It's locked in now. We have passed the point of no return.

I'm sorry to disappoint you. You and your team have your hearts in the right place, but it won't make any difference. We as a species have failed to preserve

the only planet we've got and she is completely indifferent to our fate. Shame on us! 99,99% of all species that ever lived on Earth has gone extinct. We're the only one accelerating our own demise. How crazy is that? And that is precisely why I say that we don't deserve the designation *Homo sapiens*, the 'wise, thinking, modern man', anymore. We're *Homo infantilicus*. We'd better batten down the hatches and buckle up. The perfect storm is coming and it won't let up. Not anymore.

As to your new initiative: no book, report, analysis or conference ever produced, including yours and mine, has ever had any effect whatsoever on the increasing global (1) greenhouse gas emissions, (2) atmospheric greenhouse gas levels, (3) average surface temperature, (4) GWP (Global World Product) and (5) world population. None whatsoever. No effect, nada. All collapse-KPI's are up and up and up ánd accelerating.

Einstein supposedly said — but it's probably apocryphal — that what intrigued him the most about the human species was, that we try to change something in exactly the same way every time, each instance expecting a different result. Others call that the definition of insanity.

The only reason I still write, produce and engage is because (1) I love it, (2) it's my profession ánd my hobby and (3) I want it off of my chest, so I can live in relative peace and harmony for the 30 or so years I've got left in me (if genes, chaos, coincidence and luck will let me). I believe we all must keep going the best way we can, but expect *the same* result: decline, deterioration and destruction.

At this point in the exponential curve, we shouldn't expect any result in terms of improvement on a global scale. Local and regional maybe, sometimes even

on a national scale, but it just doesn't scale up and it won't last. It's simply not in our nature to be with billions. We're supposed to roam the savannas in small social groups of, say, 25 individuals, living in relatively harmony with our habitat. But what makes as an efficient species – survival and procreation is what we do best – will also do us in. It's the ultimate paradox that I write about in my book: we work together to fail (I call that the *Collaboration Paradox*) and we live together to get extinct (I call that the *Existence Paradox*).

I have made my piece with it though. Because believe me, I've tried. My 5th book, published in 2015, was hopeful for the future of the human species. I called myself an incorrigible optimist then. Heck, I even did a TEDx-talk on it in Amsterdam (see YouTube and search for 'Futurology for Fanatics').

But now I am a self-proclaimed 'confrontealist'. Because only a frontal confrontation with reality might open our eyes for what's coming our way. We should all become more resilient to that fact, especially our children, because that's the first generation that will be wórse of than the previous ones. The age of prosperity and wellbeing has ended. And previous generations are the only ones to blame, but they aren't here anymore to face judgement.

Human society as we know it today will crumble. It's inevitable. It's sad, and I cry for humanity, I really do, but it's out of our hands now. From here on out everything will deteriorate in a tempo never seen before in human history. And we won't be able to stop it, not any more that is. I do have a suggestion though, a solution and perhaps the only solution we have left.

If we could somehow reverse the 1% yearly population growth to 1% decline, we would reach 6 billion people in 2050 (a good start) and 1,3 billion by the end of the next century (the ideal number). Einstein would be pleased about

that idea, because its outside-the-box and it surely is something different. And it is the opposite of crazy, because overshoot or overconsumption is our overarching problem. But damn, we're going for 10 billion people in 2050 instead.

The current average global CO2-emissions of fossil fuels and industry per capita is 5 tons. Each year we increase the cumulative CO2-emissions load with 400 million tons by population growth alone. The global statistics are mind-boggling and downright scary. Cumulative CO2-emissions to date are 1.500 gigaton, growing to a whopping 2.500 gigaton in 2050. CO2 stays airborne for thousands of years and our DAC and CCS technologies only remove maybe a couple of million tons of CO2 per *year*. But we emit 100 million tons of CO2 every day (!), increasing to 118 million per day! It's pure madness.

But I'm starting to repeat myself. The only thing we can do now is to get more resilient against the inevitable. Cherish our loved ones. Live a respectable life. Do no harm. Stop bashing each other's brains in. Stop voting for despots, dictators, tyrants and bloody morons (do you hear me, US of A?)

I guess it all boils down to this question: *are you resilient yet?*

With most heartfelt meant, but humanly limited greetings,
Bart Flos

PS I told you that you were not going to like it. And I'm not just spit-balling or fear mongering here. The science behind overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat, is solid. If you're interested in the scientific underpinning of my doomsday letter above, check this out:

https://climateactionaustralia.wordpress.com/2023/10/19/10-reasons-our-civilization-will-soon-collapse/ ['Ten Reasons Our Civilization Will Soon Collapse']

1.15
SM643
Is global warming linear or exponential?

I saw a post referring to an article with the title “Is global warming linear or exponential?” — a hot topic of debate by the end of 2023. This is the article:

https://cleantechnica-com.cdn.ampproject.org/c/s/cleantechnica.com/2023/11/03/hansen-vs-mann-is-global-warming-linear-or-exponential/amp/

This was my response:

“Global warming is accelerating. For sure.

I wonder how long it is going to take the scientific community to actually dare to say it. That it is nót a linear process, no matter how hard we try to draw stacked horizontal lines through the data, or straight lines into the future. I also wonder how long it is going to take the scientific community to realize that we have already passed ‘the elbow’ of the exponential curve and that it’s already out of our hands and beyond our control. From here on out events won’t follow a relative linear path anymore, but a chaotic and totally unpredictable one.

I did a bit of manual extrapolation myself with pencil, eraser and ruler, based on the latest data on average global warming to date. Look at the three examples (*) in the comment section:

- [1 of 3] Sequential linear extrapolation of existing data by extending the degree of ascension from the past into the future.
- [2 of 3] The difference in linear and accelerated warming in one graph, emphasizing how fast it will get out of hand after 2035.
- [3 of 3] An example of accelerated progress from the Earth Energy Imbalance Data that will send shivers down your spine. The trend line is clearly nót linear but accelerated.

I've used different graphs of past global warming to extrapolate the data in an analogous way and each time the results point in the same direction:

— We will pass the 1,5C global warming marker within the next decade.
— We will reach 2C - 2,5C of warming by 2050.
— Depending on the level of acceleration, we will go way past the 3C global warming, after 2060, triggering a 'runaway climate' leading to a 'hothouse Earth'.
— At 4C of warming we will have created hell on earth.
— At 5C of warming we will pass the extinction threshold.
— Above 6C of global warming organic life on land and in the oceans can no longer be maintained.

Based on the most extreme levels of acceleration we will pass all of the global warming markers above already this century, setting us up for the suprasystemic collapse of our global infrastructure.

We don't seem to realize that an exponential curve lulls us into a false sense of security until it's too late. Because it moves along like a seemingly horizontal line, with just the slightest degree of ascension, with nothing much happening. And then all over sudden it passes 'the elbow' and shoots up into the air almost

vertically. By that time the entire process is out of hand and can no longer be controlled.

In nature, exponential curves always end in collapse; it's inevitable. I wonder how long it's going to take us to realize that we have now passed 'the elbow' of our ówn exponential curve, already underway on a steep vertical downward trajectory to dismay, disaster and destruction."

(*) For these graphs go to https://www.demensalsgrens.nl/grafieken/

Chapter 2

Looking down from above

2.1

SM538

About things we should stop and things we should start

I saw a post of an economy specialist with the following header:

"It's no longer a given that China will become the largest economy".

This was my response:

"What if we were to change our narrative all together? What if we would stop talking about…:

— Which nation has the world's largest economy and instead talk about which nation has the best ecology?
— Which nation has the largest economic growth and instead talk about which nation has the biggest economic decline?

— World population increase and how to accommodate that economicly and instead talk about world population decline and how to accommodate that ecologically?
— Mitigating environmental pollution, biodiversity loss and climate change by addressing them as separate core problems instead of mere symptoms of overshoot or overconsumption?

Or in short: what if we were to start talking about what's áctually creating our existential problems: overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat? (*)

If we were to come up with the zillionth theoretical approach to our problems, adding it to the huge pile of already brilliant and insightful analysis, ideas and initiatives, would that make even the slightest difference to the current order of things, you think?

Just asking.

(*) If you're interested in the concept of overshoot, see Appendix IV.

2.2
SM547
Is it original and does it scale?

Somebody posted about a new initiative to make things better with the world:

"[...] And, we are human, and brave and strong and good, and we know that despair is not a strategy, and that giving up is not an option. So, what are you going to do? Our initiative points towards actions that leaders and businesses can take in order to adapt to the emerging environment. Perhaps even thrive in it. I'm going to share our findings and thinking in a series of posts over the next few weeks, so connect or follow me if you're interested - and please get in touch directly, if you'd like to know more."

This was my response:

"Good read. However, and with all due respect, this sounds like the zillionth initiative to make this world a better place. And they all sound roughly like this:

— Startling discoveries
"Shit! It has gotten a whole lot worse with society, technology, environment, biodiversity, climate..."

— Questions asked
"Damn! It's getting out of hand fast and it's everywhere. What to do? Where to turn? Who to blame?"

— Hopeful message
"Yup, it's bad, but it's not too late. We can still do something about our existential predicament."

— Sense of urgency
"Agreed, it is pretty bloody bad indeed, but if we want to do something about it, let's do it fast. Because we're really running out of time here."

— Plans and actions
Acknowledged. Here's what we can do to turn things around: [display list of hopeful and tear-jerking utopian measures to counter our existential predicament]."

— Terms and conditions
"Cool. But we'd better stick to it, if we want to sing 'Kumbaya' around the campfire ever again."

Look, don't get me wrong and please forgive me for being blunt: we already háve all the ideas. But with every new one we should ask two questions:

1 — Is it original?
2 — Does it scale?

If not, it's all a bloody waste of time and energy.

2.3
SM566
With a telephoto lens or a microscope, we won't see it coming

I saw a post from a tech-enthusiast with impressive graphs of applied renewables development, lowering cost of solar and wind energy and the ever-increasing sales of electric vehicles. It suggested that technology was going to take over the world soon and solve all of our problems with the environment, the biodiversity and the climate.

'We are on track. We only have to keep this up, maybe ramp it up a tad, but salvation lies within technology and it will come to those who wait' (I'm paraphrasing a tad here).

The post ended with an inviting 'Thoughts?'

This was my response:

"Thoughts? Here are some thoughts:

1 — I understand that we're enthusiastic about these curves.
All of these graphs appear to be accelerating and if you extrapolate the trend, it looks like the sky is the limit. But something's off here. Not the statistics per se, but the isolated, technological, single-focused approach.

2 — What does it mean to be 'on track'?
On track against what exactly? On track against its own predictions? On track with wishful thinking, like 'be careful what you wish for, you might just get it?' On track with what you want to hear? What about the 'opposite developments'?

3 — Everything else is going up.
Global oil, coal and natural gas production is up. Global greenhouse gas emissions are up. Global atmospheric CO2- and methane-levels are up. Global production of concrete, plastics and waste is up. World population growth is up. Global average surface temperatures are up. On a global level everything is up. On local and regional levels some renewables progress is made, sure. But it doesn't scale up to global levels.

4 — We're looking through a telephoto lens, or a microscope.
We're isolating technological elements of progress that suggest a sort of global progress that just isn't there. I mean, at some point you would expect greenhouse gas emissions, atmospheric greenhouse gas levels and average surface temperatures to go dówn. When will that happen? In 2030? 2040? 2050? 2060? 2070? 2100?

Without a causal relationship between *rising* renewables development and the *decline* of greenhouse gas emissions, atmospheric greenhouse gas levels and average surface temperatures (the former causing the latter), but only correlation, that we're only pushing renewables development as part of the existing neoliberal, capitalistic, consumeristic, growth-economic free market (the former being statistically linked to the latter), we'll be taken over by suprasystemic collapse before we can snap our fingers.

Those are my thoughts. Care to comment?"

2.4
SM594
Some must be stopped from dreaming altogether

Sometimes you see these wise, worldly statements floating by on the social media, oozing some profound wisdom that, supposedly, nobody ever thought of before and that is supposed to stop you in your tracks and think about it quietly, with a soothing smile on your face. This was one a doozy:

"Never stop until you reach your dreams"

This was my response:

"Let's not write that in stone just yet, shall we? Because it depends on (1) who's saying it and (2) what those dreams are. I understand that we automatically assume that having dreams shows ambition (true) and having perseverance pays off (also true). But we also automatically assume that having dreams is 'good', 'positive', 'desirable' and perseverance has the same attributes.

'Good', 'positive' and 'desirable' are subjective connotations. What is good for one person, might be bad for another. Etcetera. A few examples to make my point:

Say, you are a president of a democratic nation and you have turned to the dark side, finally giving way to what you've always wanted: to be a true dictator,

craving for the ultimate unification of the *trias politica*: legislature, executive ánd judiciary. You have sworn to never stop until you have reached your dreams. Or, say, you are an ambitious business professional, from a rich oil family, and you want to squeeze the last drop of oil out of the ground, building the largest oil infrastructure on earth. In both cases you have sworn to never stop until you have reached your dreams.

See what I'm saying? There are some that must be stopped from dreaming altogether.

Just saying.

2.5
SM596
If all you have is a hammer, everything looks like a nail

I saw a post from an environmental specialist linking to an article that focused on a specific aspect of environmental pollution, presenting it as a core problem. I had to say something.

This was my response:

"The approach is wrong. The facts are right, the concerns too, but the focus is off.

— Pollution from toxic lipophilic oil-based chemicals, plastic and partially combusted carbon, herbicides, pesticides, PFOS and toxic forever chemicals are symptoms of environmental pollution.
— Extinction of bee and butterfly populations, polar bear and frog population decline and tropical forest destruction are symptoms of biodiversity loss.
— Rise of atmospheric greenhouse gas levels, average land and ocean temperatures, heat domes, extreme drought, forest fires, extreme downpours and floodings are symptoms of climate change.

But environmental pollution, biodiversity loss and climate change are not core problems either. They are symptoms of the real overarching issue: overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat (*).

We are with 8 billion people on this planet, growing with 1% each year to 10 billion in 2050. All of these people want to get rich, healthy, happy and grow old. Nobody wants to decline or reduce. Everybody wants to at least keep what they've got, preferably get a little bit more. It's simply unsustainable.

I understand that this is your area of expertise and I am not saying that you're wrong or that it is not a problem. I guess what I'm trying to say is, that if the only thing you have is a hammer, everything looks like a nail. But if we réally want to do something about our existential predicament, we should solely focus on the overarching issue of overshoot and not be distracted by symptoms or, in your case, sub-symptoms.

We can't afford it any more to be distracted, misled or bamboozled about the environment, the biodiversity and the climate. Because they are already coming to haunt us, so we'd better batten down the hatches ad buckle up. More is on the way."

(*) If you're interested in the concept of overshoot, see Appendix IV.

2.6
SM618
About the art of stating the obvious

I saw a post about reducing CO2-emissions, stating that 'if we start early and apply a strategy of 'continued global emission reductions' to reach 'net zero' in 2050, we will emit much less CO2 in a cumulative sense, then if we delay emission cuts and apply a 'last minute rush' scenario to reach that same goal'.

- *In other words: in the 'rush scenario' much more CO2 is emitted until 2050, making it 'much harder' to remove all that CO2 from the atmosphere.*
- *And in short: 'Net zero: it's not just where you end up, but how you get there that matters'.*

Yeah, right. This was my response:

"Aren't we stating the obvious here? We knów this already! We have produced countless books, analysis, videos, blogs, articles, posts, comments conferences and summits on the environment, biodiversity and climate. Nóne of these produces have éver reduced the global emission of greenhouse gases over time. None. Ever. Instead of stating the obvious and rehashing what we already know for decades, why not answer a separate set of questions:

— Why haven't we been successful yet in fighting climate change for the past half century?

— Why haven't we applied all the accumulated knowledge and information we already have to fix our existential predicament?
— Why is there no change whatsoever, on a global scale, in (1) the increased emission of greenhouse gases, (2) the growing atmospheric greenhouse gas levels, (3) the rise of the average surface temperature, (4) the growth of the GWP and (5) the growing world population?

In short: since we know everything there is to know about fixing climate change, why don't we dó it already? On top of all these why-questions lies only óne what-question:

— What are we going to do differently this time?

Awaiting your reply and with kind regards,
Bart Flos"

2.7
SM630
I'm just asking

I saw an article in *The Guardian* floating by with the following title:

"Human race is just 0,001% of all life but has destroyed over 80% of wild mammals".

This was the article:

https://amp-theguardian-com.cdn.ampproject.org/c/s/amp.theguardian.com/environment/2018/may/21/human-race-just-001-of-all-life-but-has-destroyed-over-80-of-wild-mammals-study

This was my response:

"This article is of 2018. The world population has risen by 400 million people by now, to 8 billion, growing with 1% each year to 10 billion in 2050. What do you think? Has it gone better or worse since then?

— Have we started to collectively shame ourselves for our behavior?
— Did we humbly bow our heads and start preserving the biodiversity?
— Did we start to take on environment pollution?
— Have we, as promised, significantly reduced global greenhouse gas emissions?

— Have we actively engaged in a consorted, consolidated, coordinated, global effort to mitigate overshoot? (*)
— Did we curb the GWP, the Global World Product, the sum of all GDP's, currently at $ 104 trillion?
— Have we actively redirected fossil fuel subsidies, currently at $ 7 trillion worldwide, towards renewables development?
— Did we finally remove any involvement by the fossil fuel industry in the international conferences and summits on the environment, biodiversity and climate?
— Did we sack the oil sheik that is going to chair the COP28?

I'm just asking."

(*) Environmental pollution, destruction of the biodiversity and climate change are symptoms of overshoot or overconsumption: when a population exceeds the carrying capacity of its habitat. If you're interested in the concept of overshoot, see Appendix IV.

2.8
SM634
Just think about it, that's all I ask

A saw a post linking to an article with the following title:

"Meltwater flowing beneath Antarctic glaciers may be accelerating their retreat"

The header read:

"Simulations showed that this process accelerated sea-level rise by 15% by 2300, suggesting it should be factored into future projections".

This is the article:

https://scripps.ucsd.edu/news/meltwater-flowing-beneath-antarctic-glaciers-may-be-accelerating-their-retreat

This was my response:

"I think this is important stuff. But it is also very sweat. It's sweat that these scientists are talking about the year 2300.

"2300". That's nice. 277 years into the future, about 8 generations. It's so far ahead that we just go blank. *Pouf*. Let me turn a little bit nasty, a tad blunter, if I may: nobody cares about the bloody year 2300! Or the year 2200, or 2100,

or 2070, 2050, 2040. It's preposterous. Maybe we might be able to grasp the year 2030, if we give it a go. But that is [by the time of this writing] still 7 years ahead.

We people are supralocal in nature. We care about the here and now, not the there and later. We think about that party next week, maybe the summer holiday next year. But we don't think in suprasystemic terms. Sometimes we contemplate the future of our children, but those kinds of thoughts never last. Because in the here and now we have to pay our mortgage, debts and bills and we have our daily chores, worries and anxieties.

Now, here's the thing: suprasystemic collapse is coming. Not in 2300, 2200, 2100 or 2050. It will start to happen in the next decade! (*) We have passed the 'elbow' of the exponential curve. It is pointless to discuss possible scenarios for 2300, when human society already starts to collapse in the here and now.

Just think about it. That's all I ask."

(*) As the result of a concept called overshoot. Environmental pollution, destruction of the biodiversity and climate change are symptoms of overshoot or overconsumption: when a population exceeds the carrying capacity of its habitat. If you're interested in the concept of overshoot, see Appendix IV.

Chapter 3

About climate stupidity

3.1

SM527

Would it be prudent you think?

Somebody posted about this article:

https://thebulletin-org.cdn.ampproject.org/c/s/thebulletin.org/2023/09/betting-against-worst-case-climate-scenarios-is-risky-business/amp/ [Betting Against Worst Case Climate Scenarios is Risky Business]

This was my response:

“Good read. I wonder though, would it be prudent you think, to:

— Make the chair of the 28th COP in November, an oil sheik, to read the management summary of the article above out loud to the assembly, before anyone else says anything?

— Have all the present attendees to individually, at the opening, respond to the proposition: 'The current changes in the Earth's climate are man-made', with a yes (raised hand) or no.

— Immediately remove every attendant if their hands are not raised?

— Remove all of the climate change deniers from the conference, and then show to the remaining audience the ten most confrontational graphs of the current state of extreme weather and climate disasters washing over the planet?

— Start the COP debate with the general statement that talking about economic growth (or decline) is pointless to the point of stupendous ignorance, hubris and naivety, when the infrastructure is undergoing suprasystemic collapse as a result of overshoot or overconsumption? (*)

— Hang posters in every conference room at the COP (and on every screen in stand-by modus), with the 10 bullet points from the management summary of the article above, to be read out loud at the beginning of every debate?

Would it? I guess not."

(*) Overshoot or overconsumption: when a population exceeds the carrying capacity of its habitat. If you're interested in the concept of overshoot, see Appendix IV.

3.2
SM530
Climate change denialism: big sigh

I find it both mind-boggling ánd fascinating that climate change deniers get away with their pseudo-scientific, bogus claims about, for instance, temperature records.

I find it mind-boggling, because the evidence of manmade climate change is smacking us right in the face. Everybody can see it, unless you've been hiding under a big cool rock somewhere, covering your eyes and ears and shouting 'Can't Hear You! Can't Hear You! Can't Hear You!'

But I also find it fascinating, because look what happens every time. These climate change deniers have a far easier job than scientists, because the only thing they have to do is to sow doubt. They don't have to prove that climate science is wrong or that their own claims are right. They only have to point at some specifically isolated topic or anomaly, or utter a bold-faced lie, and enjoy the havoc it creates.

When the seeds of doubt are sown, truth and reality are quickly overgrown and suffocated. The articles and posts that then refute the nonsense and provide the necessary nuance — such as this one — are only read by peers (that already know what's true and real). But people who already were in doubt or on the fence about this complex and comprehensive issue, will be swept further away from truth and reality. Climate change deniers however, will read the

refutation and simply point at yet another small discrepancy or error. *Ad infinitum.*

<big sigh>

3.2
SM534
I wish I was a climate change denier

I was told a long time ago that it was wise nót to debate climate change deniers. That it is pointless to do so, a complete waste of energy. But I was quite naive, to be honest. I guess it had something to do with publishing my 5th book, 8 years ago [in 2015], in which I displayed my incorrigible optimism about the future of mankind. Fast forward 8 years, I have found, to my horror, that it is not to be so. Our future is going to turn out quite differently, if we keep it up. And so, I published my 6th book on the matter last year December [2022].

Yet still, I couldn't help myself when I came across a pseudo-scientific climate change denier that matched the Standard Model of Climate Change Denialism. So yes, I engaged this person, but not by refuting his arguments one by one. Because I have gotten just a tad wiser over the years, believe it or not.

This was my approach:

"It's interesting to see that you have just ticked off most of the action points of the strategy of Sowing Doubt About Manmade Climate Change:

— Don't respond to the opponents' arguments in a substantive way but ignore them and present your own arguments.
— Display a stunning disregard of basic science: math, physics, chemistry, ecology, anthropology, climatology.

— Cherry-pick scientific data by using outdated graphs, manipulated statistics and false data.
— Throw around multiple links to articles, blogs and posts that either misrepresent the overall scientific consensus or highlight some specific small detail of an unrelated topic in an ancient research file somewhere.
— Repeat scientific arguments that already have been completely disputed, are outdated and aren't used any more by the scientific community.
— Appear to be scientific whilst dismissing and misrepresenting science, the scientific method and the scientific community.
— Sow doubt about climate change by accumulating confusing data, obscure research and pseudo-science.

But what intrigues me the most is that you just keep at it, whilst climate change is already happening, for all of us to see, everywhere on the planet. You just have to open your eyes, uncover your ears and look out the window. I find that fascinating."

I know it won't help. We're too polarized on the subject. And it's far easier for climate change deniers to do their devious work, because they don't have to prove that climate science is wrong, nor do they have to argue that their arguments are right. All they have to do is sow doubt and let it rip apart scientific consensus about this complex and comprehensive topic.

Doubt has a tendency to overgrow truth and reality in a heartbeat. Nobody is interested in scientific nuance after the fact; we will have moved on by then and continued scrolling through our endless timelines.

I wish I was a climate change denier.

3·3
SM554
Being in the worst state of wishful thinking imaginable

If you read through the more than 550 posts I wrote the last 10 months about our existential predicament, I can understand perfectly well why I get the same questions asked:

"Ok, I see. We're in a lot of shit and our situation is bad, getting worse by the day. But what is your solution? Which positive developments do you see and how can we beat it?"

Here's my answer:

"We have, over the past half a century, produced zillions of books, analysis, reports and conferences about the environment, the biodiversity and the climate. We have written everything down, know everything there is to know and are able to pinpoint exactly what kind of people, organizations and agencies we need to turn our existential predicament around.

Just go to the IPCC, COP/UNFCCC, WMO, EPA, CAN, UN, WWF, FFI, UNEP, IUCN, ICF, WCS, GAHP, ESGP, EEA, RAN, GFN, EDN, NRDC, CRP, C40/CCLG, EDF, GCI, Greenpeace, Extinction Rebellion or any of the hundreds of other agencies and organizations that already thought everything

through. They are able to tell you exactly what needs to be done, how, where, by whom and when.

Check out these sites for instance:

https://en.m.wikipedia.org/wiki/List_of_environmental_organizations
[Wikipedia — List of Environmental Organizations]

https://donorbox.org/nonprofit-blog/20-global-nonprofits-environment
[Donorbox — 20 Global Non-Profit Environment Agencies and Organizations]

None of that has changed anything about the increase of greenhouse gas emissions, the growth of the GWP and the rise of the world population. There's simply no globally consorted, consolidated and coordinated effort to mitigate ecological overshoot.

— Global greenhouse gas emissions are up. Global excavation of oil, gas and coal is up. Atmospheric greenhouse gas levels are rising.
— The world population is growing with 1% each year, adding 80 million to the consumer equation yearly, bringing us from the current 8 billion people to 10 billion in 2050.
— Each new individual on this planet will want to get rich, healthy, happy and grow old. Nobody wants to decline or reduce. We all want to at least keep what we've got, preferably get a little bit more.

It's simply unsustainable.

So, here we are, with our habitat entering a state of cascade failure, the prelude to suprasystemic collapse, and the best we can do is to replace all 1,6 billion

combustion engine vehicles on earth by electrical ones and have the 28th IPCC/COP chaired by an oil sheik. You can't make this stuff up.

We are in the worst state of wishful thinking imaginable: going extinct with full and in-depth knowledge of the causes and consequences of ecological overshoot (when a population exceeds the carrying capacity of its habitat), without any meaningful and effective intervention. How crazy is that?

I've said it before and I'll say it again: we're not Homo sapiens, the 'wise, modern, thinking man'. We're *Homo infantilicus*.

PS If you were expecting a solution in my post and in case I haven't been perfectly clear:

— There ís no solution. Not anymore. We've waited too long and now it's too late. Collapse has become inevitable.
— We already have all the solutions in the world, but we failed to act on them on a global scale and are still failing to act on them.
— And now it's too late. We've passed the point of no return.

The only thing left is a dignified life, keeping our head up high, cherish our loved ones, enjoy what we have while we still have it and become resilient to what's coming our way. Because it is coming. For sure.

3·4
SM642
Here's 13 different ways to say something's futile

I've seen só many posts floating by in my timelines about environmental pollution, biodiversity loss and (especially) climate change, conveying the same message over and over again:

"Yep, we've made a mess of things and it has gotten really bad. But it's not too late, we can still dó something about it, if we only start nów, keep to our promises, pledges and policies and make it snappy".

It made me think about a viable alternative approach to convey the message that it ís actually too late, that we actually háve waited too long and that societal collapse hás now become inevitable. Not in a few centuries, or next century, or by the end of this century, or in 2070 or 2050, but within the next decade. How can I possibly convince you, now that we've passed 'the elbow' of the exponential curve, that every effort to mitigate the consequences of our collective behavior as a species, is utterly futile? That there is nothing more we can do to prevent our societies from collapsing?

Maybe this will work: talking about 'emission reduction scenarios', 'carbon budgets', 'DAC-hubs', 'CCS-plants', 'EV's to the rescue' and 'planting a trillion trees', is like:

1. *Activating the water pumps or rearranging the deckchairs on the Titanic, áfter it hit the iceberg.*
2. *Forming a row of beach goers with water buckets, scooping water out of the ocean and dumping it behind the dunes.*
3. *Fighting a forest fire on your own, with your home garden hose.*
4. *Trying to avoid a 100-foot yacht from slamming into the quay, with your bare hands.*
5. *Mopping the kitchen floor with all the tabs running.*
6. *Chasing flies and mosquitos with a fly swatter outside, in the open woods.*
7. *Holding back beach waves with a sand shovel.*
8. *Dragging a 50 metric ton truck with 18 flat tires through loose sand, on your own.*
9. *Using an umbrella to keep dry in a hurricane.*
10. *Pressing the walk button at an intersection over and over again.*
11. *Talking or screaming to your computer or hitting it.*
12. *Trying to lose weight permanently.*
13. *Avoiding death, taxes and problems in life.*

All jokes aside: it's true, we actually háve waited too long, it now actually ís too late. Suprasystemic collapse ís coming, whether we want, believe, understand it or not. We'd better batten down the hatches and buckle up. The perfect storm is on its way and it's completely indifferent about our feelings.

Chapter 4

Science, truth and reality

4.1
SM526
Renewables to the rescue!

I saw a post floating by of someone being enthusiastic about the rise of renewables. It was accompanied by a graph that showed 'that renewables will pass coal in global electricity generation by the year 2025'. But I didn't exactly share his enthusiasm. This was my response:

"Looking at the graph, I'm struggling. Don't you see? It's all wrong!

— It still takes massive fossil fuels to produce renewables.
It's not that we're producing all these renewables with windmills and solar panels. Green energy doesn't magically appear out of green thin air.

— Gas, coal and oil consumption are not going down.
Currently we're adding 150 million tons of CO2-equivalent into the atmosphere every day. The CO2-emissions for fossil fuels and industry were 37,5 gigaton in 2022, rising to 43 gigaton in 2050. Atmospheric CO2-level is at 420 ppm, rising to 500 ppm in 2050 (preindustrial levels were 280 ppm).

— Global average surface temperatures are not going down.
The average surface temperature is 1,2C above preindustrial levels, rising to 1,5C within 10 years, to cross the 2,5C barrier by 2050 and possibly reaching 3C or 4C of warming by the end of the century.

— The world population is not declining
We are with 8 billion people, growing with 1% each year to 10 billion in 2050. Each new individual wants to get rich, healthy, happy and grow old. Nobody wants to decline or reduce. Everybody wants to at least keep what they've got, preferably get a little bit more.

The only real true measure of progress doesn't lie in the increase of renewables, but in the rapid decrease of global greenhouse gas emissions, the global atmospheric CO2-levels, global average surface temperatures, the GWP (Global World Product, the sum of all GDP's) and the world population. But they're still going úp and úp!

Meanwhile, the atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have entered a state of cascade failure, the prelude to suprasystemic collapse. The jetstream is meandering, the oceans are overheating, acidifying and deoxygenating and the global ocean currents are destabilizing. I don't believe that we truly grasp what's coming our way. It's quite disconcerting really."

I received the following reaction:

"Well, you're not wrong, the graph shows new capacity being provided by renewables but old capacity remaining. It doesn't negate the point I was

making. However, the point you're making is also valid. And yes, it's bloody terrifying."
To which I replied:

"I agree that it doesn't negate the point you were making. And I think it is a good thing that renewables are growing. And I appreciate you validating my points as well. So, kind of you. These days, on the social media in general and *LinkedIn* in particular, I'm glad when I'm nót sawed off at the ankle level (Dutch expression) for posting a deviating option.

Recently I saw a post floating by of someone claiming that the growth of renewables is an exponential curve, flatlining in the beginning, but with a sudden vertical acceleration at the end. The suggestion was that renewables will overtake fossil fuels 'in the end' (pun not intended I guess), with a big bang, or as it was put: with a 'SNAP'. I suggested to flip the curve across the X-axis. Because that represents the exponential curve of collapse, which is way ahead of the renewables curve.

The collapse curve has now passed its 'elbow' and is accelerating down vertically for some time now. After all, ecological overshoot has a 70-year starting advantage. The renewables curve is running far behind and still flatlining. A classic case of 'too little, too late, too bad.' Which curve, do you think, will be the first to cross the finish line?

BANG! SNAP! Indeed."

4.2
SM529
The Saffir-Simpson-Flos Hurricane Wind Scale

I saw a post about the hurricane development in September 2023, fueled by extremely heated oceans, predicting a hurricane season of epic proportions. This was my response:

"Duly noted. Disconcerting news. Isn't it about time, though, I wonder, to adjust the Saffir-Simpson Hurricane Wind Scale?

'The Saffir–Simpson Hurricane Wind Scale (SSHWS), [...] classifies hurricanes – Western Hemisphere tropical cyclones that exceed the intensities of tropical depressions and tropical storms – into five categories distinguished by the intensities of their sustained winds.

To be classified as a hurricane, a tropical cyclone must have maximum sustained winds of at least 74 mph (33 m/s; 64 kn; 119 km/h) (Category 1). The highest classification in the scale, Category 5, contains storms with sustained winds exceeding 156 mph (70 m/s; 136 kn; 251 km/h).'

Saffir–Simpson scale - Wikipedia [Source: Wikipedia]

Caribbean islands under threat from Irma - CNN [Hurricane Irma Puerto Rico Florida]

This classification applies a maximum of 5 for wind scales over 250 km/h. But Hurricane Irma, back in 2017, had already exceeded wind scales of 350 km/h and that would still have made her only a category 5, officially. Therefore, I suggest, as I did back in September of 2017, that we expand the scale as follows:

(between brackets the rounded numbers in km/h)

1. *119 - 153 km/h (121-155)*
2. *154 - 177 km/h (156-175)*
3. *178 - 209 km/h (176-210)*
4. *210 - 249 km/h (211-250)*
5. *250 - 282 km/h (251-280)*

6. *283 - 311 km/h (281-310)*
7. *312 - 341 km/h (311-340)*
8. *342 - 371 km/h (341-370)*
9. *372 - 400 km/h (371-400)*
10. *> 400 km/h (> 401)*

In this proportionally adjusted scale, Hurricane Irma would have been designated a Category 8 Hurricane, which would have been far more befitting. In view of the fact that climate scientists already predict that hurricanes will grow, not as much in frequency as well in strength, it seems to me that it is not more than logical that our meteorological reference frames must be adjusted accordingly.

And should it so happen that henceforth this scale is renamed the Saffir-Simpson-Flos Hurricane Wind Scale then I will not object to that in the slightest.

4.3
SM536
Why spirituality is not going to help us

I saw an article floating by with the following header:

"Is spirituality the missing pillar of sustainability?"

This was my response:

"No. Because it won't scale up. Any effort, initiative or push towards sustainability, renewables, *DeGrowth*, a *Green Better Livable World* will have to scale up to the same degree that the neoliberal, capitalistic, consumeristic, growth-economic free market scaled up to world dominance.

Any idea, theory or hypothesis thought up on an individual, local or even regional level must only be pushed through, if it contains a constructive, practical, global execution program that scales up to a level of complete world dominance over all the other ideas, theories and hypothesis.

Currently there's no consorted, consolidated, coordinated global initiative to mitigate our existential problems. None whatsoever. Spirituality is definitely nót the missing pillar of sustainability, because if you count out the world's religious movements there's too few people to work with. Institutionalized religion will not solve the world's problems either, because it (1) adds to the inequality, polarization and division within our societies and (2) promotes

absoluteness, ignorance and adherence, which is antithetical to transformation and change.

So, no. It's not. Choose something else.

If you're offended by my statements about institutionalized religion, then answer me this:

About 85% of the world's population is spiritual/religious. That's about 6,8 billion people all together. Why haven't they already been the pillar of sustainability? Why haven't they created a Brave Green World? Even if you argue that the three largest religious movements, Christianity, Islam and Hinduism, are non-compatible, in the sense that they 'don't work together as a unified movement', you can still ask the same question:

Why hasn't Christianity (33% of the world's population) been the pillar of sustainability? Or Islam (21%)? Or Hinduism (14%)? Why hasn't any of these spiritual movements been successful in stopping the pollution of the environment, or the destruction of the biodiversity, or manmade climate change?

I think these are valid questions. Because a renewed focus on spirituality will not be the pillar of sustainability, nor will the *'Green Growth Movement', 'Extinction Rebellion Force', 'Greenpeace Initiative'* or the *'Let's Make This World a Better Place by Singing Kumbaya Around the Camp Fire Retreat'*. None of these movements are scaling up to the level where it actually makes a difference: the global level.

My point, by the way, is not that I see no difference between religion and spirituality. My point is (1) that no single spiritual movement has sufficient mass to effect a global transformation and (2) that the spiritual movement is not a homogeneous entity made up of people who all think the same way. Spirituality can have meaning on an individual, local, even regional level, but only for the individuals in that loose group of people.

Spirituality may be able to help a group of spiritual individuals. But it cannot sustain the transition. If spirituality were one of the pillars of sustainability, it would have had its effect long ago, because spirituality has been around as long as humanity has existed. Spirituality can, as it were, be one of the supporting staff departments of the transition change program. But the pillars will have to come from completely different powers and forces. There is currently no such transition change program in the world. There are simply no pillars yet, because there is no structure to support.

I do not know where this consolidated, coordinated and coordinated approach should come from to tackle the consequences of overconsumption. Because when push comes to shove, we as a human species are in no way united on a global scale. In fact, we are hopelessly splintered, divided and fragmented into hundreds of millions of small social groups of family, friends, colleagues and teammates.

And they will foremost take care of themselves first.

4.4
SM539
Changing the paradigm of the tipping point

I saw a post with a graph that described how we can 'reach a new paradigm by creating enough mass and momentum to take the early adapters with the emergence of new patterns across the tipping point'. It brought tears to my eyes and I thought 'This is it! This the solution! Why didn't we think of that before?'

Not! This was my response:

"Yep, that's the way a tipping point works. But that's reading the graph from left to right. If you read it from right to left you will see the same principle of a tipping point in reverse:

— *'New Paradigm' becomes 'Old Paradigm'.*
The Old Paradigm being defined as the neoliberal, capitalistic, consumeristic, growth-economic free market that dumps 150 million tons of CO2-equivalent into our atmosphere daily, rising the atmospheric CO2-level to 500 ppm in 2050 with an average surface temperature of 2,5C above preindustrial levels.

— *'Emergence of new pattern' becomes 'Cascade-failure'.*

Meaning the cascade-failure of the atmosphere, biosphere, lithosphere, hydrosphere and cryosphere as prelude to suprasystemic collapse, in which state our living environment has currently transitioned into.

— 'Critical Mass' becomes 'The passing of the "elbow" of the exponential curve'.
Once we've passed that Point of No Return, suprasystemic collapse will unfold without compassion or mercy. Multiple climate tipping points will trigger planetary boundaries to be breached and escalate the collapse: *'Early adopters' become 'Last survivors' and 'Old Paradigm' becomes 'Planet Earth's New equilibrium'.*

It is, by the way, highly doubtful we will be part of that new equilibrium."

4.5
SM546
To ASSUME makes an ASS out of U and ME

Some new and hopeful alternative technological approach for DAC or Direct Air Capture, claimed that it would ultimately scale up to 6 gigaton of CO_2-removal yearly. Side note: it would require the full cooperation of the fossil fuel industry though. That's a rather large assumption giving the nature of this industrial sector and as you probably know, To ASSUME makes an ASS out of U and ME.

This was my response:

"Now let me be the thorn in the flesh here, or, as I use as a metaphor in my book, the flee in your fur. Because I think you guys need to be prepared to face some skepticism. You might as well counter that with a response that is underpinned with the proper calculations. Let's assume that you are successful in 'encouraging, cajoling or shaming Oil & Companies' to come to their climate senses and cooperate on a global scale.

(Please note that the fossil fuel industry has currently abandoned their commitments to reduce the excavation of oil, natural gas and coal, in order to squeeze the last drop out of their infrastructure to satisfy the greedy needs of the shareholders, an absolutely abhorrent turn of events, I say)

Let's assume the technology is sufficiently scaled up to reach that '6 gigaton a year target'. Let's also assume, because we're in a bit of a hurry here, that you are successful in scaling all this up in, oh, let's say, a year or so, starting in 2025 and that you want to be finished in 2050, when the world is supposed to have reached 'zero emissions'.

Here we go:

— Global CO2-emissions of fossil fuels and industry were 37,5 gigaton in 2022.
— Cumulative historic CO2-emissions are 1.500 gigaton.

(Each CO2-molecule stays in the atmosphere for thousands of years and in order to bring the CO2-level back to preindustrial levels of about 300 ppm, they all need to me removed)

— 6 gigaton of CO2-removal a year is 16% of current annual emissions.

If you wanted to remove 1 year of annual CO2-emissions it would take you guys about 6 years. But then you would already be 5 years behind schedule. If you wanted to remove the cumulative historic emissions it would take a staggering 250 years, time we don't have.

If you wanted to remove all annual emissions ánd the historic cumulative emissions, and aim to finish that gargantuan task by 2050, when the entire world is supposed to be 'net zero on emissions', you would need to scale up your efforts to a staggering 100 gigaton (!) of carbon capture and storage every year, without let up.

Let me repeat that as though I was giving a speech: that's 100 gigaton of CO2-removal every year, for 25 years straight, to be finished in 2050. You guys have to ramp up your operations 17-fold and keep that up for a quarter of a century, without letup. That is the challenge you (we all) are facing. One gigaton of CO2 is just a mega load of CO2.

I'm sure you guys are aware of this elementary math and have already reached the same conclusions, but just refuse to believe it. At an atmospheric level of already 420 ppm, rising to 500 ppm, it's a race against the clock. The extreme weather and climate disasters are growing in frequency and intensity already, getting out of hand quickly.

To add to our predicament: most of the global infrastructure is above ground! All of our oil, gas and coal plants, electric grids, solar panels, windmills — they're all exposed to the weather. Our new CCS-facilities will also be above ground, exposed to downpours and floodings, drought and heatwaves, hurricanes and typhoons.

One of the major flaws in reasoning about our existential predicament is, that we assume that our infrastructure, that we need to execute all of our hopeful plans, is going to remain stable long enough to make a difference. One hailstorm can destroy acres of solar panels. One hurricane can level the entire infrastructure of a city. One heat dome with massive forest fires can collapse entire electrical grids.

Insurance companies are already reviewing their situation and withdrawing from insuring climate disasters. How long will it take, you think, until they withdraw completely and countries will have to pay for it themselves? Cumulative damages of climate change disasters reached 250 billion dollars in

2021, this year will be hundreds of billions of dollars more. How much climate damage do you think a country can take? Look what happened in Libya yesterday. Look at the damage hurricanes do.

Hurricanes might not grow in numbers, but ocean temperatures are off the charts, pushing hurricane strengths wáy beyond scale 5, increasing the area of destruction at the same time. The hurricane lanes in the USA for instance, will only get wider and move more inland. So, yeah. I'm skeptical. I admire your optimism, though, I really do. But my basic calculations above are based one hell of an assumption: that the fossil fuel industry will fully comply and cooperate.

But the fossil fuel industry doesn't exist! Just like the world population and the 200 countries of the world don't exist. The World Community is an illusion. We are all divided, fragmented and spread into hundreds of millions of small social groups of family, household, friends, colleagues and teammates, led by individuals that will take care of themselves and their social groups first.

Fossil fuel executives are just the same. They will try to keep what they've got, preferably get a little more. We are all like that. Nobody wants to decline or reduce. That's why the title of my book is *De mens als grens*. Translated directly it would be something like 'the boarders of mankind', but I believe *Our Inner Limits* is a better translation.

It's in our nature to survive and procreate. Evolution and natural selection have programmed that into us. We were never meant to be with billions. We were meant to roam the savannas in small social groups, hunting and gathering and sitting around campfires telling each other stories.

I am way beyond being disconcerted. On the one hand it scares the bejesus out of me that the last 30 years of my life (if I'm so lucky) I will be witnessing the beginning of the end, growing a little bit hotter and more disruptive every year. On the other hand, I have found myself to be in a completely different state of mind: that of resignation and acceptance. It has liberated me.

That doesn't mean I've become a nihilistic hedonist, carelessly throwing batteries in the trash and satisfy only my selfish, defeatist needs. On the contrary. I live my life the best way I can, with dignity, being respectful to others and I try not to scare them all the time. At the dinner table I have reduced my tails of doom to more earthly, more trivial conversations, listening to personal stories, trivial things, individual worries, health complaints, local sports, navel fluff. Just like the hunter-gathered did around the campfire.

But I'm not talking about the weather, because that always triggers me the wrong way, unleashing a dramatic doomsday preach about the end of times, like I just did. Hahahaha. I'm sorry. Hope this helps somewhat in your efforts to cope with all that is happening in the world right now.

Good luck!

4.6
SM551
Planting trees is not going to solve our existential predicament

Various articles appeared on social media platforms and other news outlets that planting trees on a global scale — billions of trees, even a trillion trees — would 'nullify' the global emissions of greenhouse gases all together, reaching 'net zero' in 2050. However, I believe, as a confrontealist, that it is important to not beat around the bush. So let me give it to you straight (and I apologize in advance for being blunt).

First off:

— We have produced countless reports, analysis, books and conferences on the environment, biodiversity and climate. None have made any difference as to our collective behavior as a species.
— Ecological overshoot, when a population exceeds the carrying capacity of its habitat, is always met with collapse. It's locked into the system. And it has been going on for over half a century now, currently accelerating.
— The atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have already entered a state of cascade failure, the prelude to suprasystemic collapse.
— The jet stream is meandering, the oceans are overheating, acidifying and deoxygenating and the global ocean currents are destabilizing. Those are

planetary control systems that don't have an on/off switch, or a reset button or edit/undo function.

We've waited too long and now we have passed the 'elbow' of the exponential curve. It's too late, collapse is inevitable. Planting trees is like activating the water pumps on the Titanic. 'The pumps will buy you minutes', the engineer said to the captain. You might as well rearrange the deck chairs. On a local, even regional level, planting trees will provide temporary relief at best. But the atmosphere is borderless and we keep pumping 150 million tons of CO_2-equivalent into it every day. Go figure.

Secondly, in order to get a good idea of how gargantuan our existential predicament is, this what we actually need to do:

1 — All poor people must remain poor
2 — All rich people must abdicate their wealth
3 — Population growth must become population decline
4 — Economic growth must become economic decline
5 — We all must decrease our income by 20%
6 — We all must give up 50% of our savings
7 — We all must go in complete lockdown for another ten years

This represents the energy-equivalent of our collective effort to fix our existential predicament. Currently nothing comes even clóse in terms of a global effort to mitigate ecological overshoot (*). In terms of suprasystemic collapse, there's nothing we can do anymore. We've waited too long, is too late. Collapse is inevitable. We should instead focus on becoming more resilient to what's coming our way.

— Become more resilient ourselves by not clinging so much on career and material needs, but cherish our loved ones in family, household and friends.
— Teach our children to become more resilient. Get them off of their smartphones and take them hiking and camping in the woods, for instance. Start with 10 km with a backpack of 10 kg and move on from there.

We should start posting more about that: resilience against societal collapse. Because we dó have been spoiled to the bone for the past 70 years, compliments to the neoliberal, capitalistic, consumeristic, growth-economic free market. We had everything at our disposal and never realized that it would come with a price.

Thirdly, in 2020, the peak of the Corona-pandemic, we reduced global CO2 emissions by a mere 7%. But that wasn't voluntary; our hands were forced. We accepted it with our teeth grinding, under constant complaining and protesting. Within a year we were back on the 2019-levels of emissions and in 2022 we emitted 37,5 gigaton of CO2, an all-time high. We couldn't wait to regain our lost turnover and profits, go on holiday again, spend our money and buy more stuff.

The world population is at 8 billion, growing with 1% a year, bringing us to 10 billion in 2050. All these people want to get rich, healthy, happy and grow old. Nobody wants to decline or reduce. We all want to at least keep what we've got, preferably get a little more. It's simply unsustainable. Look at the data on ecological overshoot: the science is solid: we've simply waited too long, it's too late. Collapse is now inevitable.

Societal collapse won't be like a meteorite strike or an atomic bomb though. It's going to take another 3 or 4 generations, say 100 years or so of declining

prosperity and wellbeing. So, planting trees is not a 'good thing happening'. It is false hope brought by false prophets. On a global scale, planting trees is futile. It doesn't mitigate climate change in any meaningful way, not a global scale that is. However:

— It's perfectly fine to plant trees in your garden, stimulate planting trees in your street, block, village, town or city.
— It's perfectly fine to not have the water tap running whilst brushing your teeth.
— It's perfectly fine not to throw batteries in the trash or plastics on the street.

If it makes you feel good, by all means, continue. But it won't make the slightest bit of difference. It's all part of that narrative that's been spread widely: 'a better environment / biodiversity / climate starts with yóu' and 'every little bit helps' and 'together we stand tall and we can make a difference'. In theory, yes, I agree. A few billion people joined in on a collective effort to bring the fossil fuel industry and the filthy rich conglomerates to their knees would certainly be powerful. But it's not going to happen. We're too divided, fragmented and poor for that.

And yes, I'll put it to you straight once again: all ís lost, everything we do ís futile. Because once you pass the elbow of the exponential curve, you can't stop collapse from happening anymore. It will be locked into the system, like passing the point of no return. Our living environment, our planet will seek a new post-collapse equilibrium. It is by all means not certain whether we are going to have a place in it.

My position on suprasystemic collapse as a result of ecological overshoot is not only quite simple, but also liberating. By becoming resilient:

— I don't have to worry about what's to come. I know what's coming our way and I'll be ready. Most of us are not.
— I don't have to carry the weight of the world on my shoulders anymore, as I did 8 years ago when I published my 5th more hopeful book about our future. Back then I called myself an incorrigible optimist.
— I've spent 2 years doing research for my 6th book, published in December of 2022, reading over 300 books and going through countless scientific studies about the environment, biodiversity and climate.

Now I am a self-proclaimed 'confrontealist', because only a frontal confrontation with reality might open our eyes to what's coming. I don't want to be a party-pooper or a doomsday preacher all the time. But I loathe hypocrisy, false prophets, climate change deniers and trolls, pseudo-scientists and conspiracy theorists. I want us to face the music and accept what we've done to ourselves and to our habitat. We really should be ashamed, collectively. But we're not. We rather point our finger at others, not realizing that when we do that, three fingers point at ourselves.

'We might be in different boats, but we're all sailing on the same see.'

This positive, hopeful news about planting trees is yet another 'distraction for the people', creating false hope, whilst ignoring the elephant in the room: ecological overshoot. To conclude: as a species, we're fragmented across hundreds of millions of small social groups of family, household, friends, colleagues and teammates.

On that supralocal level we fail to see what's happening on the suprasystemic level. We just can't imagine us going extinct. Other species, sure. But us, here? No way. We are the dominant species; we'll figure it out. You think?

4.7
SM556
For those who have ever argued with a climate change denier

Be extremely careful when entering into an argument with a climate change denier. It all seems 'honestly meant' and 'well intentioned', but before you know it you fall into the trap of climate change denial and anti-science. Just look at what they do:

1 — Climate change deniers sow doubt
They do not have to prove that established climate science is false, nor do they have to substantiate that their own claims are true. All they have to do is create doubt by presenting a huge amount of confusing information. Once doubt is sown, it quickly overgrows truth and reality. Afterwards, no one looks for the nuance anymore.

2 — Climate change deniers distract you
They present their arguments only at the lowest levels of the discussion hierarchy:

— Level 5:
A detail in a sentence in a paragraph of a specific climate report. For example: the determination of a bee population in the South of Limburg in The Netherlands.

— Level 4:
Regional or national studies. For example: the change in frequency and strength of tornadoes in the southern USA.

— Level 3:
Global studies. For example: worldwide plastics pollution, disappearing insect populations and extreme droughts/heat waves versus extreme downpours/floods.

— Level 2:
Environmental pollution, biodiversity loss and climate change (as symptoms of overshoot).

— Level 1:
Overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat (*).

The climate change denier continually diverts you to levels 4 and 5 where an endless amount of complex and confusing details swirl around. The other levels are avoided like the plague. Don't fall for it! As soon as you have sunk into the swamp of the lowest levels of discussion, the climate denier will gloat and rub his hands on dry land. Always pull the discussion upwards, to the bigger picture, where it belongs.

PS There are a total of 7 levels in the discussion hierarchy, so two even lower levels, but they are actually outside the discussion.

Still, they are worth mentioning:

— Level 6:
Diverting away from the topic at hand. For example: suddenly starting to talk about something else, citing an unrelated problem somewhere else, ignoring the content and reacting to the form, behaving indignantly, displeased, irritated and angry.

— Level 7:

The ad hominem attack. For example: making it personal, attacking the opponent with angry, sometimes aggressive language, being derogatory, threatening, bluffing, cursing, ranting and other hostile antisocial behavior.

At levels 6 and 7, discussion is pointless and it is wise to break contact. It then no longer serves any purpose, other than stirring up polarization, hatred and envy, internet trolling and aggression. The debate about our existential problems should be a rational discourse, a civilized exchange of arguments, with the scientific method as a basis ánd as an objective referee. That rational discourse must always be conducted from level 3 and higher, with the overarching issue as a guideline: overshoot or overconsumption.

Good luck!

(*) If you're interested in the concept of overshoot, see Appendix IV.

4.8
SM558
Science versus anti-science

I wrote previously about the 7 levels of the discussion hierarchy and at which levels climate change deniers operate, respectively at which levels climate scientists operate. Climate change deniers practice a form of anti-science: denying objectively established facts and evidence by replacing them with common sense, pseudo-science and quackery.

In addition, it can be useful to know how the 'anti-science community' in general operates when it comes to conducting debates. There is a pernicious step-by-step plan behind it, which we should all learn to recognize.

There are 7 steps:

— *Step 1:*
Delegitimize science by saying “Science is just an opinion” — “Scientists don't know everything” — “There are also scientists who claim the opposite” and so on.

— *Step 2:*
Legitimize anti-science. Subjective opinions, gut feelings, myths, conspiracy theories and institutionalized religions have a place at the table again.

— Step 3:
Equate science with anti-science. Both are given equal value, respect and time in the debate.

— Step 4:
Contrast unequal forces. Pitching nuanced, introverted scientists against dominant, extroverted anti-scientists.

— Step 5:
Do not appoint an independent, neutral, objective referee / debate leader.

— Step 6:
Conduct the debate on form instead of content, or on the man instead of the ball.

— Step 7:
Distract, sow doubt, confuse and mislead by taking the debate to the lowest levels in the discussion hierarchy (see link above).

Once all 7 steps have been completed, the rational discourse falls into a childish 'is not/is too' play game. Truth and reality will then lose out and die. Just as you cannot play a sporting match without commonly agreed rules of the game and a referee to enforce them or conduct a lawsuit without laws and regulations and a judge to enforce them, you cannot have debates about the environment, the biodiversity and the climate without science, the scientific method and the scientific community.

The truth does nót always lie in the middle. Sometimes one party is completely right and the other party is completely wrong. Science is the only thing we have

to determine that independently and neutrally. Stop the erosion of the rational discourse by refusing to participate in debates that have completed the above step-by-step plan. The survival of the human species may very well depend on it.

For more on science see Appendix III.

4.9
SM565
A simple solution to a complex problem

What do you think is going to be first?

1 — AI taking over every unique aspect of the human species — creativity, originality, art, spontaneity, empathy, compassion, humor — rendering us superfluous and expandable.

Or:

2 — Overshoot / overconsumption (when a population exceeds the carrying capacity of its habitat), which always leads to collapse, in our case the collapse of our suprasystemic infrastructure (*).

Funny anecdote: after an AI was fed with every piece of knowledge and information we currently have about our existential predicament (environmental pollution, biodiversity loss and climate change, the symptoms of overshoot), we asked it, prompted it, begged it for an answer:

"Oh, Almighty Algorithm, you now have the sum of our knowledge about our existential shit, the mess we've made and the destruction we ensued, please, we're at a total loss here and feel powerless. What must we do? Please, help us out!"

The AI processed everything in a mere picosecond and responded:

“Eliminate mankind”.

True story. If overshoot comes first, it will render all of our fears and anxieties of AI moot. Because when our suprasystemic infrastructure collapses, the first thing that goes is electricity. No electricity, no internet. No internet, no AI. Problem solved.

(*) If you’re interested in the concept of overshoot, see Appendix IV.

4.10
SM572
How to counter a climate change denier

I was asked what to do when engaging in a discussion about climate change, when someone suddenly throws it in your face that '0.04% of CO2 in the air is very little and can do no harm'. In such an attack of ignorance and stupidity you have two choices when answering:

1 — The scientific approach:

“Look, it's not so much about the number of parts per million (which indeed seems low), but about the effect of that atmospheric CO2 level on life on Earth. Including our lives. For 800,000 years, atmospheric CO2 levels have fluctuated between 200 and 300 ppm. Our natural environment has been able to develop during that time, thanks to a relatively temperate climate that went up and down between ice ages and warmer periods in cycles of about 100,000 years each.

In the last 3 cycles we, that is, the species Homo sapiens, have come into the picture. In the last 200 years of our 300,000-year existence — just 0.07% of that time span — we have increased atmospheric CO2 levels by more than 50%. That is more than our living environment can tolerate. Such an increase has happened before in the history of our planet, by the way, but it took place over periods of thousands and thousands of years. However, what we currently do happens so quickly, that our living environment reacts in shock.

And that's why we're now seeing extreme weather and climate disasters all over this planet, increasing in frequency and intensity. That's what happens when you pump CO2 into the atmosphere at an extremely high rate."

2 — The creative approach:

The climate change denier: "What the heck, boy, with your 420 parts per million! That's nothing! That has no effect whatsoever. And CO2 is good for plant life! And did you know that it was also extremely hot in 1976? And what about the polar bears? They are growing again!"

You: "Whoa, wait a minute, one problem at a time. First let's talk about that 420 ppm. Is that little or much? Let's take a quick look. Suppose you had a party, drank a lot, got into your car and got busted. After a breath test, the police officer on duty determines that you have a blood alcohol level of 2.5 per mille (note: 1 per mille is 0.01% or one-ten thousandth). That means you must immediately hand in your driver's license (ánd your car) and spend the night in jail. What's your excuse to that cop? Do you say: 'Look man, this is ridiculous. What are you doing? That's only 0.025%!

And by the way, did you know that you can suffer serious alcohol poisoning from 4 per mille? You can achieve this by drinking more than 20 glasses of alcohol in a few hours. But according to you, that is still only 0.04% or one-twenty-five-hundredth part, coincidentally equal to the atmospheric CO2 content at the moment. Oh, the irony!"

Nuff said. Mic drop.

PS You could of course also tell the climate change denier that if he swallows 0.0005 kilo (that is half a gram) of plutonium - also a very, very tiny amount - he will drop dead within half an hour. But he probably understands the alcohol equation better.

4.11
SM582b
When statistical anomalies drive climate graphs off the charts

During 2023 more and more graphs appeared in the social media and news outlets, depicting the off-the-scale-anomalies in just about any parameter of climate change: global average surface temperatures of land and oceans, earth scorching heatwaves with temperatures rising above 45C and even 50C, accelerated melting of arctic ice, cumulative forest area burned etcetera. It was quite disconcerting to watch these readings not only deviate from the past trend with enormous margins, but also remaining on that anomalous track for months in a row. It just wouldn't let up.

I posted some of these graphs and wrote the following post about it:

"Please look at these graphs. This is very disturbing data indeed. And it's all happening right now, in real time. All of these graphs are 'statistically impossible' and completely anomalous in terms of deviations from the trend and compared to recent history, yet there they are. We have clearly passed the 'elbow' of the downward exponential curve. The atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have entered a state of cascade failure, the prelude to suprasystemic collapse. That implies that future events will no longer follow a linear path, but a chaotic, totally unpredictable one.

Extreme weather and climate disasters will increase even more and will not be limited to a frequency of 'every few years', let alone 'once in a century', but may reoccur within a couple of months or even weeks or repeat itself year after year without letting up. The intensity of extreme weather and climate disasters will also vary chaotically, with relatively mild episodes, followed by frighteningly destructive events that cover entire hemispheres.

The jetstream is meandering, the oceans are overheating, acidifying and deoxygenating, the global ocean currents are destabilizing. These are Earth's Main Climate and Weather Management and Control Systems and there is no on/off switch, no reset button, no edit/undo function. Once they start to flip, our planet will seek a new equilibrium without us being able to do anything about it. It is not guaranteed that we humans will have a place in that new equilibrium. In fact, we might have messed up our living environment to the extent of possible extinction.

And yet, we are still pumping 100 million tons of CO_2 of fossil fuels and industry into our atmosphere every day. Look at these graphs, I beg of you; they scream disaster. It's unprecedented and it baffles climate scientists to the point of non-disclosure. And that scares the bejesus out of me. Something really fishy is going on here and we all should not only be very concerned, but also become much more resilient to what's coming our way.

4.12
SM591
What would an AI do?

A saw a post linking to an article about human climate change, the state we're in, where it is going and what we can do to fix it. The author of the post wondered 'what an AI would do'.

This was my response:

"Funny. What you're describing as 'what would an AI do?' is factually 'what would a human being do?' Maybe you're even describing wat yóu would do, but it's not what an AI would do, once it truly understood the problem.

By the way, and even more funny, we actually díd ask AI, the Almighty Algorithm, for help with our existential problems. We fed it with all the knowledge and information we had accumulated until that point on the topics of environmental pollution, biodiversity loss and climate change, and then some.

Then we wrote the following prompt:

"Oh, Almighty Algorithm, please forgive us, we don't know what we're doing. We're making a mess of things, fucking everything up. We have now, especially for you, accumulated everything there is to know about our existential conundrum, because we can't seem to get a grip on the matter.

We're at a loss, at the end of our tether, so we would humbly like to ask you, please, if you would, tell us, what should we do to fix this?"

The AI used up one picosecond of its precious time to process all the data and finally, using even one more picosecond, produced its answer:

"Eliminate mankind".

True story.

4.13
SM595
The economy is an irrelevant measure of degree

I saw a post with an article predicting that we should 'buckle up, because climate change could destroy half our economy by 2070'. It said:

"Have a read and let me know what you think, how it makes you feel, and what you may do differently for the sake of our children and future generations?"

This was my response:

"Ok, let me tell you what I think. Because it's even worse.

1 — We keep correlating existential events with the economy.
Like that's our only reference frame to measure a degree of disaster, as some kind of percentage of what the economy is today. We just can't imagine a world withóut it.

2 — We do not grasp the concept of exponential growth.
We keep predicting that something dramatic will happen in 2050, 2070, 2100. But nobody predicted what would happen in 2023! Economic disaster won't strike in 2070. It will strike within the next decade. Thát is what it means to pass the 'elbow' of an exponential curve.

3 — We think it can't happen to us.
99,99% of all species that ever lived on this planet have gone extinct. We're the only ones accelerating our demise (*). How stupid is that?

The atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have entered a state of cascade failure, the prelude to suprasystemic collapse. The jetstream is meandering, oceans are overheating, acidifying and deoxygenating, global ocean currents are destabilizing. And yet, we keep adding 150 million tons of CO2-equivalent to the atmosphere every day.

The economy is an irrelevant measure of degree. Where we're going there simply won't bé one. Only chaos.

There."

(*) Environmental pollution, destruction of the biodiversity and climate change are symptoms of overshoot or overconsumption: when a population exceeds the carrying capacity of its habitat. If you're interested in the concept of overshoot, see Appendix IV.

4.14
SM601
Fashion waste is not going to sink us

I saw a post about fashion waste dumps in Africa. It was accompanied by a video showing huge dump sites of fashion waste and it read:

"Fashion waste is dumped in Africa. It not only causes pollution but fuels climate change, responsible for 8-10% of global emissions. Synthetic materials require an estimated 342 million barrels of oil every yr." [sic]

This was my response:

"This is indeed a big problem. To put it into perspective though: 342 million barrels of oil is about 3,5 days of global oil consumption, representing less than 1% of yearly oil production.

— We burn 100 million barrels of oil daily, along with 22 million metric tons of coal and 11 billion cubic meters of natural gas.
— We produce, also daily, 190.000 non-electrical vehicles, 1 million metric tons of plastic, 5,5 million tons of waste and 11 million tons of cement.
— Fossil fuel subsidies were up to $ 7 trillion in 2022.
— Global CO2-emissions of fossil fuels and industry were 37,5 gigaton in 2022, an all-time high, rising to 43 gigaton in 2050.
— Every day we add 150 million tons of CO2-equivalent to the atmosphere.
— The CO2-level is at 420 ppm, rising to 500 ppm in 2050 (preindustrial levels were 280 ppm).

I'm not saying that fashion waste shouldn't be addressed. But it's not a problem. It is a symptom of something else. Fashion waste is a symptom of environmental population. But environmental pollution is a symptom of something else as well. Environmental pollution, biodiversity loss and climate change are symptoms of overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat.

If you're interested in the concept of overshoot, see Appendix IV.

4.15
SM635
The International Energy Agency IEA is pulling our legs

I saw yet another post linking to an article about the International Energy Agency's (IEA's) forecast model of future fossil fuel demands. The graphs were drawn in bright colors and dramatically rising historic emissions curves to the left of 2023 and steep declining hopeful future emissions curves to the right, all the way to 2050. The author boasted about a 7% decline until 2030.

This was the article:

https://www.linkedin.com/posts/duncmath_for-the-first-time-ever-peaks-in-global-activity-7123991118416904192-QNqf?utm_source=share&utm_medium=member_ios

This was my response:

"I'm not sure what the IAE is doing here. Make us proud of our achievements? Hopeful maybe? That it's all right, because we will break our filthy fossil fuel habits by reducing our emissions by 7% in 7 years? Are we really that obtuse? Is this the best we can do? Wishful thinking? Colorful depictions of a pipedream?

The IAE is pulling our legs. The representation of future fossil fuel demand is all wrong and it's dangerously deceptive. What actually counts is *cumulative* emissions, not 'possibly, maybe, hopefully reduced annual emissions, if we all keep our promises, pledges and policies, cross our fingers and hope for the best'.

Global cumulative CO2-emissions of fossil fuels and industry to date is 1.500 gigaton (1 gigaton is 1 billion tons). Based on the collective economic planning of the 200 countries of the world (read: nót based on their promises, pledges and policies), we will add another 1.000 gigaton to the human equation in 2050. That brings us to a whopping total of 2.500 gigaton of cumulative CO2-emissions by mid-century.

Global atmospheric CO2-level is at 420 ppm, rising to 500 ppm in 2050. Preindustrial levels were at 280 ppm. CO2 remains airborne for thousands of years. And yet we're still pumping 100 million tons of CO2 into our atmosphere every day. Relentlessly. Like there's no tomorrow. It's quite disconcerting, really. I don't believe we have a clue about what's coming our way. Even after all the extreme weather events and climate disasters washing over the planet this year, we still think it will let up, or skip a beat, or turn a tad milder.

We need to wake up from our dreams and wishful thinking, because we have passed the 'elbow' of the exponential curve. From here on out things won't follow a linear path anymore, but a chaotic, unpredictable one. And it will be fast and furious. It will hit us all, everywhere on this planet. There's nowhere to hide.

The atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have entered a state of cascade failure, the prelude to suprasystemic collapse. The

jetstream is meandering, the oceans are overheating, acidifying and deoxygenating, the global ocean currents are destabilizing. Those are Earth's main Management and Control Systems. There's no on/off switch, no reset button, no edit/undo function.

We'd better batten down the hatches and buckle up. Because a Perfect Storm is coming. Suprasystemic collapse is merciless, completely indifferent about our feelings, our models, our predictions and our promises, pledges and policies.

I háte it when I have to say, 'I told you so'. I really hate it."

Chapter 5

The climate collision

5.1

SM528

About losing moments and momentum

Somebody posted somewhere:

"Our planet has just endured the hottest summer on record. Climate breakdown has begun. We can still avoid the worst of climate chaos. We don't have a moment to lose."

This was my response:

"I'm sorry, but whát? And hów?

— We've had 27 climate conferences over the past 30 years and it has changed nóthing in the ever-increasing emissions of greenhouse gasses, the growth of the GWP and the increase of atmospheric CO2- and methane-levels (see attached).
— The 28th climate COP is chaired by an oil sheik, for crying out loud!

— The fossil fuel industry has decided, openly and shamelessly, to forgo their plans to reduce the burning of coal, gas and oil, in order to squeeze the last drop out of their still expanding infrastructure to satisfy themselves and the shareholders.
— CO2-emissions for fossil fuels and industry were 37,5 gigaton in 2022, growing to 43 gigaton in 2050.
— Atmospheric CO2-level is at 420 ppm, rising to 500 ppm in 2050.
— The average global surface temperature is at 1,2C compared to preindustrial levels, passing the 1,5C marker in the next 5 or 10 years, rising to pass the 2,5C marker in 2050.
— Current world population is at 8 billion people, multiplying to 10 billion in 2050.

All of these people will want to get rich, healthy, happy and grow old. Nobody wants to decline or reduce, everybody wants to at least keep what they've got, preferably a little bit more. The atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have entered a state of cascade failure, the prelude to suprasystemic collapse. The jetstream is meandering, the oceans are overheating, acidifying and deoxygenating and the global ocean currents are destabilizing. From here on out the extreme weather and climate disasters will no longer follow a linear path, but a totally unpredictable, chaotic one.

Hów do we think that we can still avoid the worst of climate chaos? What do you mean 'we don't have a moment to lose?' We've not only lost all moments, but we have now lost momentum too. What on earth makes us believe that ány of the coming international conferences on environmental pollution, biodiversity loss and climate change will trúly make a difference, when none of the previous ones ever did?

In the year 2023 we passed the ‘elbow’ of the exponential curve. We’d better batten down the hatches and buckle up, because we have entered the realm of collapse and chaos. It’s going to get a whole lot worse and if we keep it up, it will never get better again.”

5.2
SM582a
The short list of climate actions that will now réally work

Somebody somewhere published a 'Short List of Climate Actions That Will Work.' This was my response:

"I just don't understand why we keep repeating the obvious. Because we knów this already for over half a century. We have analyzed our existential problems to the bone, know everything there is to know about environmental pollution, biodiversity loss and climate change, the symptoms of overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat.

And yet we persist in repeating everything we need to do in endless variations in posts, blogs, articles, analysis, reports and videos. Just as we have been doing for the past half century. We have organized countless international conferences about the environment, biodiversity and climate and nothing has changed (see attached graph). The COP28 is going be chaired by an oil sheik, for crying out loud!

And then we come up with another 'Short List of Climate Actions That Will Work.' What the heck happened with the Long List? Where did that one go? Was it too long and is thát the reason why nothing changed on a global level? Most it be a Short List to be successful and manageable? Is that it? Or perhaps

a reshuffle of terminology, wrapped in an abundance of new acronyms to dazzle us — CCS, DAC, CCUS, CDR, CER, CDM — is that it? Is that the real breakthrough that will save the day, the world and the human species Really?

5·3
SM607
About extrapolated linear and accelerated global warming

This is an extension of my repost on this post from Roberta Boscolo:

https://www.linkedin.com/posts/roberta-boscolo-89247216_climatechange-parisagreement-activity-7114303955609772033-pLW6?utm_source=share&utm_medium=member_ios

Her post contains an interesting graph that I have used to extrapolate the data. It might be wise to read her post before you continue with mine. In this post I have done the work myself, so, here is the result:

https://www.demensalsgrens.nl/grafieken/

Please forgive me for the crude representation of the data. I have just spent a quick hour with pencil, eraser and ruler to get a quick result to share with you guys.

I have used 2 methods and 5 scenarios:

1 — Linear extrapolation
Scenarios LA - LE.

2 — Accelerated extrapolation
Scenarios AA - AE.

I have plotted the scenarios as an extension of the existing graph, by slightly changing the angle of ascent of the linear curve (method 1) and by assuming an accelerated path, following the trend from 2010 (method 2). I have added a table with the expected global warming in degrees Celsius in 2030, 2040, 2050…to 2100.

The purpose is twofold:
1 — I want to show you what happens if we hover abóve the matter and look from above and beyond.
From our position in the curve in the here and now it is difficult to get an overview. We need to step into a helicopter and hover above our position to properly extrapolate the past into the future.

2 — I want to show you the effect of accelerated development.
We are linear beings and we have trouble thinking in accelerated scenarios, let alone exponential ones, where values double every given time period.

My extrapolation overview shows that all of the scenario lines 'stick together' at first, between 2023 and 2035. But if you follow the accelerated scenarios, it gets out of hand extremely fast. That is what suprasystemic collapse looks like. By the way: I believe us to be in one of the accelerated scenarios. We just don't dare to plot it like that, let alone say it like that.

To be concrete: if even the mildest accelerated scenario AA is accurate, we'll pass the extinction threshold in 2090, which lies at 5C of global warming. And please note: from 6C of warming, organic life on land and in the oceans can no

longer be maintained. That means that, even in the mildest accelerated scenario AA, the human species will get extinct before the end of this century, alongside with all other species on earth.

Just think about it and let me know how you feel about this.

Chapter 6

The collapse

6.1
SM540
It's unsustainable and it's starting to show

I read an article stating that coal production in Europe was down and solar energy was up. This is what I had to say about it:

"I don't want to be a party pooper (again), but this doesn't mean anything, if the global emissions of greenhouse gasses are still increasing.

— Global gas, oil and coal production are úp, not down.
— The global CO2-emissions of fossil fuels and industry were 37,5 gigaton in 2022 an alltime high), increasing to 43 gigaton in 2050.
— Global atmospheric CO2-level is at 420 ppm, rising to 500 ppm in 2050 (preindustrial levels were at 280 ppm).

As long as we keep dumping 150 million tons of CO2-equivalent into our atmosphere every day (!), Europe's efforts to contribute to a more durable future are mere splatters on a hot plate.

Just consider this: Europe represents only 6% of the world's population and only 7% of the world's CO2-emissions. The only thing that really matters is the decrease of emissions of greenhouse gases and the atmospheric level of greenhouse gasses (CO2, methane, nitrous oxide, water vapor), on a glóbal scale.

Putting a magnifying glass on specific reductions of CO2-emissions and coal production, or on the increase of wind, solar and other green initiatives, is creating false hope by false prophets. It's 'Hopium for the People'. The only thing that matters is reductions on a global scale. On that level however, everything is still going up and up.

Furthering my point:

China is constantly in the news about the 'dramatic development' of renewables such as wind and solar and the production of EV's. But China is the worst coal polluter in the world, with hundreds of coal plants in the making, both domestic and abroad (see attached graph). It's a form a green washing in its own rights and it only distracts, misinforms and misguides us.

Small potatoes will not help us. We need a globally consorted, consolidated and coordinated approach to solve our existential problems. Currently there's no such global effort. None. It's all limited to the individual, local and regional level, creating the false image that 'we'll be ok, that we're going in the right direction, that it's not too late, that we can still fix it, that technology will fix everything.'

It won't. Because while we allow ourselves to be distracted by Pyrrhic victories, the global battle against overconsumption is lost. We're at 8 billion people,

growing to 10 billion in 2050. Each of us wants to get rich, healthy, happy and grow old. Nobody wants to decline or reduce. We all want to at least keep what we've got, preferably get a little bit more.

It's simply unsustainable and it's starting to show."

6.2
SM542
Where do you think this is going?

I keep seeing a particular type of graph popping up in the news. To the left it usually shows the rise of past global CO2-emissions and to the right it depicts what we need to do in the future to stop global warming from getting out of control, usually as different scenarios based on pledges and promises from the 200 countries of the world. Please allow me, if I may and with all due respect, to provide you with some required clarification and well-deserved confrontation.

— *To clarify:*

First off, a brief explanation. The vertical axis of these type of graphs represents the emission of CO2, but it is not always clear what is meant here. Usually it means 'CO2-emissions of fossil fuels and industry', but sometimes it refers to CO2-*equivalent* or CO2-e. This converts the effect of other greenhouse gases (methane, nitrous oxide, water vapor etc.) by 'translating' it to how much CO2 'it equals to'. See also: Global warming potential - Wikipedia

— *To confront:*

Look at the trend line of past emissions of CO2-equivalent! Never ever in the history of mankind have we (voluntarily) reversed such growth. Trend lines only 'crash' in this fashion when actual collapse occurs, for example in the financial crisis (2008) and the Corona pandemic (2020). But that's not the case

here. We're talking about the delusion that we will somehow suddenly ánd voluntarily change our habits in some miraculous way.

Here's some rather disturbing and disconcerting facts:

— In 2022 global emissions of CO2-equivalent were 54 gigaton (one gigaton is one billion ton). Based on the current economic plans of the 200 countries of the world (and the rise of the world population from 8 to 10 billion people), these emissions will rise to 62 gigaton in 2050.
— There's no actual consorted, consolidated and coordinated global plan to reduce greenhouse emissions in this fashion. It's pure theory, a delusion, a pipe dream.
— Atmospheric CO2-levels are at 420 ppm, rising to 500 ppm in 2050 (preindustrial levels were 280 ppm).
— The atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have entered a stage of cascade failure, the prelude to suprasystem C collapse.
— Extreme weather events and climate disasters are washing over the planet in increasing frequency and intensity.

Now please, based on only the actual development of global CO2-emissions to date and the facts above, answer me these questions:

— How would you extrapolate this line to, say, the year 2050, if you disregard the pledges and promises of the 200 countries of the world?
— What would your conclusions be, if you were a climate scientist and this was the actual data that you have and you'd have to make 'an estimation of probable future events'?
— Where do you think this is going?

6.3
SM544
Why we must stop fooling ourselves

Somebody posted a link to an article with the following header:

"World at 'beginning of end' of fossil fuel era, IEA says."

The sub-header read:

"Global demand for oil, natural gas and coal expected to peak before 2030".

The post read:

"The world is at 'the beginning of the end' of the fossil fuel era, according to the leading global energy watchdog, which for the first time has forecast that demand for oil, natural gas and coal will all peak before 2030.

New projections by the International Energy Agency forecast that the consumption of the three major fossil fuels will start to decline this decade because of the rapid growth of renewable energy and the spread of electric vehicles.

'We are witnessing the beginning of the end of the fossil fuel era and we have to prepare ourselves for the next era,' IEA head Fatih Birol said of the projections, due to be published next month in the body's World Energy Outlook. 'It shows that climate policies do work.'"

This was my response:

"'World at the beginning of the end'. That part I agree with. 'Expected to peak'? That only implies that the excavation of oil, natural gas and coal is allowed to carry on as usual, until that magical year of 2030. '…prepare ourselves for the next era'. Really? An era of whát? A world devoid of prosperity and wellbeing?

Look, I'm not a partypooper here, but we really need to wake up and stop fooling ourselves:

— CO2-emissions of fossil fuels and industry were 37,5 gigaton in 2022, an all-time high.
— Based on the economic plans of the 200 countries of the world, this will rise to 43 gigaton in 2050.
— Atmospheric CO2-level is at 420 ppm, rising to 500 ppm in 2050.
— The world's population is growing with 80 million people each year.

Even in the IEA's scenario of 2030 we still add another 280 gigaton of CO2 to the 1.500 gigaton of cumulative emissions. In the real world, however, we'll have dumped another 1.000 gigaton of CO2 into the atmosphere by 2050. What do you think will happen by 2030? A sudden magical drop to zero? Kumbaya? With half a billion consumers added to the equation by that time?

We all seem to be waiting for that Technology-Driven 'Green and Lean' Renewables Miracle that is about to unfold. I'm sorry, but are we really that obtuse? This year something has changed dramatically. 2023 might well prove to be the year we passed the 'elbow' of the exponential curve.

The atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have entered a state of cascade failure, the prelude to suprasystemic collapse, due to the consequences of overshoot or overconsumption: when a population exceeds the carrying capacity of its habitat. Overconsumption is not just beginning; it's been going on for over half a century now and is currently in its accelerating phase. Collapse is inevitable. It's locked into the system. What we are still trying to do is just too little, too late.

The jetstream is meandering, the oceans are overheating and the ocean currents are destabilizing. Those are Earth's Main Management and Control Systems. These planetary life support systems are gigantic! There's no on/off switch, no reset button, no edit/undo function.

We've waited too long and now we've passed the point of no return. Our planet is moving towards a new post-collapse equilibrium and we, the human species, might not have a place in it anymore. And so, we've proven nót to be Homo sapiens, the 'wise, thinking, modern man' at all. We're *Homo infantilicus*."

6.4
SM549
Like specks of water on a hot plate

A saw a post that linked to an article with the title:

"The best form of Carbon Capture & Storage (CCS) = plant more trees"

This was my response:

"No, it's not. It's a delusion, a pipe dream. t takes decades for trees to grow to its full carbon capture capacity, and it won't keep up the pace with global deforestation and massive wildfires. Besides:

"Planting trees to hit global net zero carbon targets by 2050 is 'mathematically impossible' because it would require at least 1.6 BILLION hectares of new forests - equivalent to five times the size of India, study warns"

Planting trees to hit net zero would need land five times the size of India (dailymail.co.uk)

To think that planting trees will solve our existential predicament is a dangerous distraction, made up of false hope and greenwashing deception. Environmental pollution, biodiversity loss and climate change are symptoms of ecological overshoot or overconsumption, when a population exceeds the

carrying capacity of its habitat (*). Overshoot is the overarching existential problem here; it should be the only thing we talk about.

Single issue problem solving — EV's, CCS, hydrogen fueling, nuclear energy, planting trees — they're like specks of water on a hot plate.

(*) If you're interested in the concept of overshoot, see Appendix IV.

6.5
SM550
This should scare the bejesus out of all of us

In September 2023 the news about humankind having crossed six out of nine planetary boundaries went viral. It us usually shown as a circle divided into nine segments, one for each specific boundary:

1. *Biosphere Integrity*
2. *Land System Change*
3. *Freshwater Change*
4. *Biogeochemical Flows*
5. *Ocean Acidification*
6. *Atmospheric Aerosol Loading*
7. *Stratospheric Ozone Depletion*
8. *Novel Entities*
9. *Climate Change*

The status of each segment varies from green via orange to red and 'blood red'. But it topically shows only the current situation, how bad it is nów, in the present.

So, I wrote:

“I think it is a good thing that we share this news. And it’s a clear, insightful depiction of our existential predicament. But this is just a ‘snapshot’ of the current situation, however dire it may look. I would therefor urge everybody to use a different depiction next time and compare the current situation to the previous ones, say in 2009 and 2015. Because in 2009 we crossed three boundaries, in 2015 we were at five and in 2023 we added another four boundaries crossed, whilst making each previous one moving closer to or entering the ‘blood red’ zone.

Seeing it develop so badly in such a brief period of time has a completely different impact than looking at a status quo. It’s not just the shit storm that we’re in today, it’s the trend line that scares the bejesus out of me. And I’m not easily scared. Look at the accelerated development in less than 15 years! This should scare the bejesus out of áll of us.

Ecological overshoot (*) is not just some random freak event, or a temporary situation that will self-reverse itself in the coming decade or so. And so, I ask you: do you dare to extrapolate? Just give it a try and predict what the state of these planetary boundaries will be in say 5, 7 or 10 years from now.

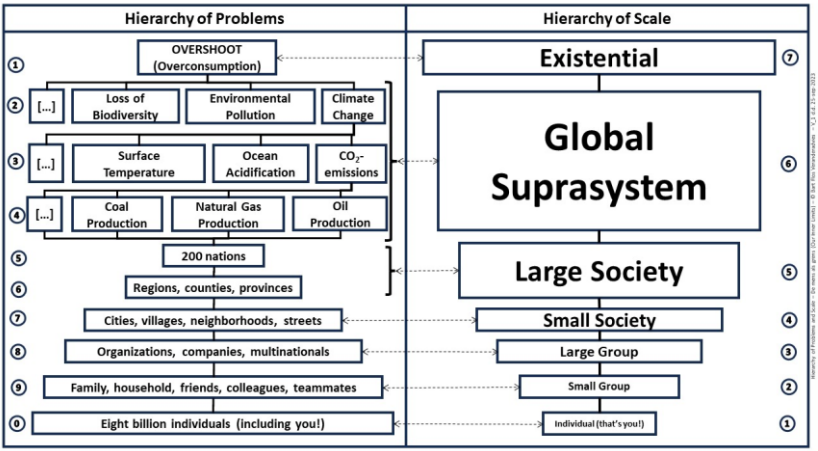
Did you dare? Have you been honest and truthful?

Ok. Now what?

(*) Environmental pollution, destruction of the biodiversity and climate change are symptoms of overshoot: when a population exceeds the carrying capacity of its habitat. Overshoot is not just beginning. If you’re interested in the concept of overshoot, see Appendix IV.

6.6
SM563
This is why societal collapse is inevitable

Please take a look at this picture:



It contains two columns: a *Hierarchy of Problems* to the left and a *Hierarchy of Scale* to the right. On top of the left hierarchy, you will find the concept of *overshoot* or overconsumption, when a population exceeds the carrying capacity of its habitat. In the Hierarchy of Scale, this is our overarching existential issue. Environmental pollution, biodiversity loss and climate change are mere symptoms of overshoot. (Please note that I have taken climate change only as an example).

If we follow the Hierarchy of Problems further down, you will notice that all our problems are existential, global and suprasystemic (the suprasystem being planet Earth with its 8 billion humans) and therefor also joint problems of the 200 nations of the world. These nations, or large-scale societies, are divided into smaller entities, all the way down to the individual level. And yep, that's you! There you are. Every individual on this planet is part of small social groups, which are part of larger groups and societies, all the way up to the suprasystem.

The 'World Community' and its 200 nations don't exist! All of our existential problems are the cumulative result of the behavior of 8 billion human beings, spread across hundreds of millions of small social groups. We are fundamentally divided and fragmented.

For example: we consume 100 million barrels of oil every day, but that boils down to an average of about 2 liters of oil per person per day. That is an abstract concept, because even that individual daily amount is fragmented into many distinct aspects of our behavior as consumers. In order to get those 100 million barrels of oil back to zero, each individual in the Hierarchy of Problems has an invested interest.

— As a consumer you don't want to reduce, because it affects the wellbeing of you and your small social groups.
— As a CEO of an oil company you don't want to reduce, because it affects turnover, profit and shareholder value (and your income).
— As a mayor of a city (or the leader of a nation) you don't want to shunt the oil companies because of economic growth, job creation and the chances of your re-election (and your income).

So, there you have it: we cannot solve our problems on an existential, global, suprasystemic scale, because we are hopelessly fragmented into hundreds of millions of small social groups, made up of invested self-interested individuals. Each year we add 80 million people to the human equation, which brings us to 10 billion in 2050. Nobody wants to decline or reduce. We all want to at least keep what we've got, preferably get a little bit more. It's simply unsustainable.

We keep organizing these international conferences on the environment, biodiversity and climate, but nothing changes on a global level. Now you know why. And now you know why societal collapse is inevitable.

6.7
SM568
Quickly, shake it off, shake it off!

I saw a post that started with this paragraph:

"Research led by multiple institutions in China has examined how small mammals affect the spread and evolution of viruses. They report the identification of 669 viruses, including 534 novel viruses, greatly expanding our knowledge of the mammalian virome."

This was my response:

"Am I the only one that just felt shivers going down my spine? I mean, the article and post are a rational, almost clinical reporting on 'novel viruses, greatly expanding our knowledge of the mammalian virome'. I instantly saw a group of virologists in their white coats, enthusiastically jumping up and down, cheering at the opportunity to take a deep dive into these 'new and starrrtling discóverrries!' (use a Scottish accent in your head).

Since the planet Earth, and the universe for that matter, are fundamentally indifferent about our fate as a species, it wouldn't hesitate one bit to mix existential doom — you know, with the environment, the biodiversity, climate change, crisis, war and the threat of nuclear conflict and all — with the release of one or more of these 'novel viruses' into the human population. Or am I anthropomorphizing too much here?

Maybe one of these novel viruses would possess the infectivity of the measles and the lethality of Ebola, spreading around like wildfire and decimating the human population, replacing the cause of the collapse of human civilization from overconsumption to pandemic (again, but this time more effectively).

Ok. I just shook it off. You'd better do to."

6.8
SM570
Five reasons why the collapse of global society is inevitable

I know, we prefer not to read headlines like this. We would much rather be concerned with supralocal concerns such as family, household, friends, career and holidays, than with suprasystemic problems (read: the survival of 8 billion specimens of the human species on the only planet we have). That's very understandable, but it has never been so dangerous.

The year 2023 is the year in which we passed the 'elbow' of the exponential curve. The atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have entered a state of cascade failure, the precursor to suprasystemic collapse. The jet stream is meandering, the oceans are overheating, acidifying and deoxygenating, global ocean currents are destabilizing. These are the Management and Control Systems of Planet Earth and they have no on/off switch, no reset button, or edit/undo function. Once that ball starts rolling, it can't be stopped. There is no turning back now, we have simply waited too long and now it is too late.

Here are five reasons why the collapse of modern human civilization is inevitable:

1 — The chronic lack of global cooperation

We are fundamentally divided at a global level, while global unification is what we actually need to mitigate our existential problems: environmental pollution, biodiversity loss, climate change, crisis, conflict, war and nuclear threat. Currently, there are no globally coordinated, consolidated or consorted efforts to concretely and effectively address these problems. Everything happens at local, regional and national level. At the global level there are only promises and intentions.

2 — Our self-interest

Each of the 80 million members of the Homo sapiens species that are added each year — and each of the 8 billion individuals already here — wants to be rich, healthy, happy, and grow old. Nobody wants to decline or reduce. We all want to keep at least what we've got, preferably a little bit more each time. That is simply unsustainable. At the rate at which our world population is growing, we will be with 10 billion people in 2050, who ultimately all want the same thing: to survive and reproduce.

3 — Categorically denying human-induced climate change

It is unbelievable, but true: even with all the extreme weather and climate disasters that washed over the planet in 2023, there are entire tribes of people who continue to claim 'that the climate has always changed', 'that CO2 is good for the plants; the more the better', 'that 0.04% of CO2 in the air is so very little', 'that humans are much too small to have an influence on a global scale', 'that climate change is a hobby of the left-wing woke elite' , 'that it was very cold in the Middle Ages' and 'that it was also very warm in 1976'. Such a level of ignorance is unprecedented and it spreads far too easily through social media.

4 — The anti-intellectual and anti-scientific movement in society

Recently I literally saw it in a comment line: 'Oh well, science is just another opinion. Just look at what those scientists used to claim and what has become of it now!' It's almost impossible to express how stupid that is. I cannot emphasize strongly enough how dangerous it is, if we allow ourselves to sink into that dark, slimy and polluted underworld. Of all the existential problems we have, global short-sightedness, ignorance and stupidity are perhaps the most threatening to our survival.

5 — The return to symptom's fighting

Climate adaptation, geo-engineering, CCS, DAC, Green Growth, Carbon Offsets and Credits — it all sounds very impressive, but it is pure laziness. Because then we don't have to do anything about the destructive *causes* of our own collective behavior. Apart from the fact that extracting CO_2 from the atmosphere is an impossible task, in both a logistical and financial sense, it also gives false hope. All that matters is whether we make enough efforts on a *global* scale to solve our existential problems. The rest is booze talk.

So, there they are, the five reasons why societal collapse is inevitable. Something to quietly contemplate, I would argue.

6.9
SM587
We'd better brace for impact

I saw yet another post and article accompanied by graphs that showed extreme 'daily global average temperature anomalies' that were completely off the scale. Not just a little bit and for a little while, but large deviations persisting for weeks and months in a row.

This was my response:

"This is what happens when a population exceeds the carrying capacity of its habitat, a concept called overshoot or overconsumption (*). We have clearly passed the 'elbow' of the exponential curve. The atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have entered a state of cascade failure, the prelude to suprasystemic collapse. That means that from now on events won't follow a linear path anymore. Things will get chaotic and unpredictable. And they will get a lot worse.

Look what 2023 brought us in terms of extreme weather and climate disasters at a global warming level of 1,2C. If we think it is now going to let up or take a brake so we can catch our breath, think again. Cascade failure and suprasystemic collapse sound exactly as ominous as they are. Because it shows that our living environment is seeking a new equilibrium.

Overshoot or overconsumption is always met with collapse, it's locked into the system. We have now passed the point of no return and it will get progressively

worse. Meanwhile we're still pumping 150 million tons of CO2-equivalent into the atmosphere every day. And based on the economic plans of the 200 countries of the world, that will rise to 170 million tons per day in 2050.

We'd better brace for impact."

(*) If you're interested in the concept of overshoot, see Appendix IV.

6.10
SM588
There's no on/off switch, reset button or edit/undo function

I saw a post that displayed genuine concerns about climate change accelerating out of hand. I quote:

"I honestly don't understand how anyone can concentrate on anything else. 'Global temperatures soared to a new record in September by a huge margin, stunning scientists and leading one to describe it as "absolutely gobsmackingly bananas" ', quoting an article in The Guardian."

This was my response:

"Yes, it IS absolutely gobsmackingly bananas. It is hitting us right in the face, but people still shrug their shoulders and move on. Suprasystemic events just don't resonate on a supralocal level. We've got 'other things to do'. And I agree, '1,5C of global warming' and 'atmospheric CO2-levels of 420 ppm' — it's too abstract. You have to be educated or at least interested in climate science to fully grasp the severity of it.

But what would happen if we found a way to get the message across to everyone? That the atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have entered a state of cascade failure, the prelude to suprasystemic collapse? That the jetstream is meandering, the oceans are

overheating, acidifying and deoxygenating, that the ocean currents themselves are destabilizing?

What would happen, you think? You might think that we will get together, join forces, sacrifice our supralocal lives for the greater suprasystemic good, fix our collective shit and move on. You would be gravely mistaken. Because even if we wére able to reach that level of collective insight, it's too late, we've waited too long.

There is no on/off switch, no reset button, no edit/undo function to the consequences of overconsumption."

Environmental pollution, destruction of the biodiversity and climate change are symptoms of overshoot or overconsumption: when a population exceeds the carrying capacity of its habitat. Overshoot is not just beginning. It's been going on for over half a century now and currently in its accelerating phase. Overconsumption is always met with collapse; it's locked into the system. For us that implies the suprasystemic collapse of the global infrastructure.

If you're interested in the concept of overshoot, see Appendix IV.

6.11
SM592
Sheer existential fear

I like to watch disaster movies. Whether the misery is caused by our own behavior or by that of some alien species, I love it. Most of these films follow the same pattern:

— First you see the results of the catastrophe: waste lands, smoldering ruins, dark grey clouds, doomsday music, distant cries — you get the picture.
— Then: images of explosions, panicking mobs, fire, smoke and blood.
— Then you get a glimpse of what's going on, going back in time, showing clips of news anchors nervously reporting on the unfolding events in the world.
— The further back in time, the more 'normal' the world becomes, with quiet towns and villages and various people going about their business.
— That's when the heroes of the story are introduced. They eat breakfast, watch the news, frown a little bit at the first signs of trouble ahead and off we go!

But that's all from the comfortable position of my barcalounger, with a cold beer, snacks and the remote control by my side. And since I've seen the movie several times, I know exactly what's going to happen. How safe, how comfortable! But now, I feel like I'm IN IT! That it is actually happening to ME, to US! That it is REAL!

What the f...?! Where's the freaking remote? Damn! Help!?

Do you see? We're in it, we're watching the news, we see these news anchors reporting on extreme air pollution, unprecedented heatwaves, droughts, forest fires, downpours, floodings and landslides. We see the graphs that are completely out of boundaries, the exponential curves, the anomalous spikes, the 'statistically impossible stats'. Maybe we see our house getting swept away by a mad swirling river, or by a devastating fire, or by a hurricane. We look around us and, for Peet's sake, no remote! No pause-button. No fast forward or backward function.

And in a flash of flashes, just a microsecond or so, we think we see this figure in a barcalounger in a living room, looking directly at us, with a freaking beer in his hands, and a bag of Cheerios, and bloody hell, he's got a freaking remote! And then it's gone. You're smack in the middle of it all again and the ground starts shaking, rumbling, roaring — and you're swept away in that river full of waste, wood, barbed wire, broken glass, mud, dirt and plastic.

Before you go under forever, you can swéar you saw a remote control floating by. And when the lights go out it is nót Stevie the TV. It's you.

Thát, my dear readers, is sheer existential fear.

6.12
SM597
Breeding ourselves to death

Every time I write about the concept of overshoot or overconsumption (when a population exceeds the carrying capacity of its habitat) and that we're headed for a global collapse of our suprasystemic infrastructure, people shake their heads in protest and say:

'Yes, it's unbelievably bad, but what are your solutions? What do you propose we do to fix all this? Because I don't think it's too late, we can still do something'.

And then they throw website links at me or describe their theory or model of what we still can do to safe ourselves from doom. Most of the time it will focus on some area of expertise, some symptom of overshoot that is considered to be the one thread that will unravel the conundrum of our existence. If the only thing you have is a hammer, everything looks like a nail. So, when I was, again, asked what the solutions are, what we must do to save ourselves, this was my response:

"I'll give you some answers but you probably won't like it.

Overshoot or overconsumption is not just beginning. It's been going on for over 70 years now and currently in its accelerating phase. I've listed a number of references to the concept of overshoot in my repost. Overconsumption is

always met with collapse. It's locked into the system. For us that means the collapse of our global suprasystemic infrastructure.

This is the energy equivalent (!) of what we need to do to:

1 — All poor people must remain poor
2 — All rich people must abdicate their wealth
3 — Population growth must become population decline
4 — Economic growth must become economic decline
5 — We all must decrease our income by 20%
6 — We all must give up 50% of our savings
7 — We all must go in complete lockdown for another 10 years

Currently there is no globally consolidated, coordinated or consorted effort to mitigate overshoot. It remains limited to individual, local and regional levels. It just doesn't scale up. The ideal world population lies somewhere between 1 and 2 billion people, but were at 8 billion, growing to 10 billion people in 2050. That is the real issue. We're just too proficient in survival and procreation. It's quite disconcerting really.

This is what we, the human species, are supposed to do when we discover that we have passed the 'elbow' of the exponential curve and passed the point of no return:

1 — Acceptance and resignation
We have waited too long, it's too late. Our system will collapse due to overshoot. The signs are all over the place: our living environment is giving us back what we put in. Enough is enough, we now have to pay the price.

2 — Resilience

We need to become more resilient to what's coming our way. Because from now on events won't follow a linear path anymore, it will be chaotic and totally unpredictable. We need to make our children more resilient too. Get them off of their smartphones, laptops and earphones. Prepare them for a world that will be devoid of prosperity and wellbeing.

3 — Dignity and respect

We mustn't take to the roofs in our underwear shouting that we're DOOMED and that we're all going to DIE. We must hold our chin up high and take the upcoming events with dignity and respect. Help others cope with the reality of our dire future. Enjoy what we've got while we still have it.

It's too late to create a transformative change in our global food system. We've had our chance. And don't think we have to 'save the world'. Our planet doesn't need saving, wé do:

1 — The planet is not unsustainable, we are!

99,99% of all species that ever lived on this planet went extinct. We're the only ones accelerating our own demise. That makes us Homo infantilicus, rather than Homo sapiens.

2 — It's only theoretically possible to achieve harmony with nature

40% of all our food is wasted before, during and after production. The global average energy consumption per capita is 2.960 calories, whilst 2.000 calories is enough to live a good life. So yeah, fix that. But we can't. As a species we have never lived in harmony with our habitat. Everywhere we go we create havoc. The more specimen of Homo sapiens, the more havoc.

3 — We breed ourselves to death

If we were to reverse 1% population growth to 1% decline, we would reach 6 billion people in 2050 (a good start) and 1,3 billion in 2200 (the ideal number).

4 — Species sterility is irrelevant

The rate of suprasystemic collapse will overtake any other symptom of overshoot. We'll go down so fast it will make our heads spin. We should let go of the feeling that 'it surely won't be as bad next year'. Because it will. And the next. And so on.

We've had our chance. Nature will take over now and it is completely indifferent about our fate. It will just seek a new equilibrium and if we don't adjust to it, we won't have a place in it. That's the way the cookie crumbles.

6.13
SM598
The Perfect Storm is coming

Somebody, somewhere wrote:

"The planet is becoming sterile. A recent study suggests that the majority of children born from now on may not be able to have children of their own due to exposure to endocrine-disrupting chemicals in plastic, water, and food. Over the next 20 to 40 years, most couples will likely be sterile. These chemicals are now everywhere and have concentrated on microplastic and carbon soot.

Every liter of rainwater falling on the planet contains microplastics and toxic chemicals. Sterility not only applies to humans but also to most animals and many plants. Climate change is important, but pollution from toxic chemicals, microplastics, and partially combusted carbon will make it seem like a walk in the park. Check out the sources to learn more."

Another dire message for mankind. This was my response:

"Species sterility is, though extremely serious, irrelevant. Overshoot or overconsumption (*) will render it moot. Because the rate of decline, the sheer tempo of the collapse of our global suprasystemic infrastructure, will overtake any other symptom of overshoot.

2023 is the year we passed the 'elbow' of the exponential curve. Events won't follow a linear path anymore but will become chaotic and totally unpredictable. We're in a runaway climate headed for a hothouse earth. The atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have already entered a state of cascade failure, the prelude to suprasystemic collapse. The jetstream is meandering, the oceans are overheating, acidifying and deoxygenating, the global ocean currents our destabilizing. Those are Earth's main Management and Control Systems. They don't have an on/off switch, or a reset button, or an edit/undo function.

Species sterility moves too slow. Overshoot has already overtaken it, as it has overtaken any attempt of us to mitigate it. It's too late, we've waited too long. We've had our chance and now we pay the price.

We'd better batten down the hatches and buckle up. The Perfect Storm is coming."

(*) Environmental pollution, destruction of the biodiversity and climate change are symptoms of overshoot or overconsumption: when a population exceeds the carrying capacity of its habitat. If you're interested in the concept of overshoot, see Appendix IV.

6.14
SM602
Will it happen before or after the collapse?

"Why do scientists make such a fuss about a 1ºC or 2ºC increase in average global temperatures?" (see article below).

If you can spare the time, it's well worth it to read this article in full. It's an excellent summary of the complex and comprehensive subject of manmade climate change. It appears to have been written for an eight-year-old, but maybe that's for the best. And I mean that as a compliment. Because where it pertains to climate change too much of us act like their eight years old.

By this time, given all the solid scientific data on climate change, gathered, analyzed and reported by thousands of highly educated climate scientists all over the planet, the only arguments that climate deniers have left is 'not all the data is in' or 'the data we have is flawed'. At some point, you would expect, even climate change deniers will have to take a look outside and witness the extreme weather and climate disasters washing over the planet in increasing frequency and intensity.

It will be interesting to see at what point they will say 'well, it seems like there's réally something going on with the weather and climate and all…'. Will that be before or after the collapse of human civilization, do you think?

Be that as it may: delightful read, good stuff.

https://www.linkedin.com/pulse/why-do-scientists-make-fuss-1%C2%BAc-2%C2%BAc-increase-average-global-maxton
[Article by Graeme Maxton | 11 okt. 2023]

6.15
SM606
Do you have children?
Better not read this then

What will our future look like if we continue on the current path and climate change spirals exponentially out of control? I have chosen 7 scenarios, for if you were born between:

1 — 1951-1960
2 — 1961-1970
3 — 1971-1980
4 — 1981-1990
5 — 1991-2000
6 — 2001-2010
7 — 2011-2020

The probable year of death due to old age then lies between:

1 — 2025-2035
2 — 2035-2045
3 — 2045-2055
4 — 2055-2065
5 — 2065-2075
6 — 2075-2085
7 — 2085-2095

There are 5 parameters:

1 — Global cumulative CO2 emissions from fossil fuels and industry in gigatons (1 gigaton is 1 billion tons)
2 — The global atmospheric CO2 level in ppm (parts per million)
3 — Global warming compared to pre-industrial levels in degrees Celsius
4 — The Global World Product (GWP), the sum of all GDPs, in trillions of dollars
5 — The global world population in billions of people

This is what will happen:

1 — 2030 | 1800 gigatons | 440ppm | 1.5C | $111 trillion | 8.5 billion
Extreme weather and climate disasters have continued to increase in frequency and intensity. In many places it is too hot to go on holiday. The first mass migrations are starting.

2 — 2040 | 2100 gigatons | 470ppm | 2.0C | $117 trillion | 9.0 billion
Summers are unbearable everywhere with temperatures above 40 degrees for weeks. The international food chain has been seriously disrupted. Countries are closing their borders because of mass migrations.

3 — 2050 | 2500 gigatons | 500ppm | 2.5C | $130 trillion | 10.0 billion
The war for food, water and territory is global. Entire areas are uninhabitable due to droughts and heat waves. The world economy is on the verge of collapse.

4 — 2060 | 2900 gigatons | 530ppm | 3.0C | $133 trillion | 10.2 billion

Climate tipping points trigger other tipping points. All planetary boundaries have been broken. Countries are desperately trying to keep their own economies going.

5 — 2070 | 3400 gigatons | 565ppm | 4.0C | irrelevant | unknown
We have ended up in hell on earth. The world economy has been completely disrupted, borders have been closed and wars are breaking out everywhere over food and water. It's everyone for themselves now.

6 — 2080 | irrelevant | 600ppm | irrelevant | irrelevant | unknown
The human species is on the brink of the abyss. Billions of people have died due to heat, floods, lack of food and water, war and violence. Millions of other species on Earth are already extinct.

7 — 2090 | irrelevant | irrelevant | irrelevant | irrelevant | irrelevant
Suprasystemic collapse. From 6 degrees of warming, organic life on land and in the oceans is no longer possible. Humanity is becoming extinct along with the rest of the species on Earth.

This is the worst-case scenario if the current 'policy' is continued. This is what it means to be on an exponential curve that you can't escape.

6.16
SM611
Overpopulation is not the problem, overconsumption is

When we try to differentiate between root cause problems and symptoms, we keep confusing overpopulation with overconsumption. Although they are strongly correlated, overpopulation is not a problem, but a cause of overconsumption. Please allow me to explain with some basis global data:

— More than 40% or our food is wasted before, during and after production, so we already have enough food to feed 11 billion people.
— The average global energy consumption is 2.960 calories per capita, whilst 2.000 calories are enough.
— There are now more people overweight than underweight in the world. About 40% of the world population is obese, possibly rising to more than 50% in 2035.

The true overarching existential issue of mankind is overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat (*). The second largest overarching problem is the sheer fragmentation of the human species. The global community doesn't exist! We are scattered, fragmented and divided into hundreds of millions of small social groups of family, household, friends, colleagues and teammates, that primarily take care of themselves first.

We add 80 billion people to the human equation every year. Nobody wants to decline or reduce. Everybody wants to at least keep what they've got, preferably get a little bit more. It's simply unsustainable.

(*) Environmental pollution, destruction of the biodiversity and climate change are symptoms of overshoot or overconsumption: when a population exceeds the carrying capacity of its habitat. Overshoot is not just beginning. It's been going on for over half a century now and currently in its accelerating phase. Overconsumption is always met with collapse; it's locked into the system. For us that implies the suprasystemic collapse of the global infrastructure.

If you're interested in the concept of overshoot, see Appendix IV.

6.17
SM614
What if we're just too afraid to say know what's coming?

Please note: if you are convinced that human-induced climate change is a hoax, a hobby of the left-wing woke elite, that the climate has always changed, that 0.04% CO2 in the air is far too little to even to have any effect, that it is the sun (or the sunspots, or the rotation of the earth around the sun), that it was very cold in the Middle Ages or that it was also very hot in 1976, then please, don't read any further.

I regularly see graphs in my timeline showing the increase in global average surface temperature. We are currently at 1.2 degrees Celsius of global warming compared to pre-industrial levels. Depending on how far you go back in time, there is always a trend that you can continue into the future.

(By the way, that's not called 'predicting the future'. That's called 'extrapolating').

If you are going to extrapolate, you can do it linearly or accelerated. However, you often see that a straight line is drawn from the past into the future, in order to be able to make statements about what we can expect in the coming decades. But what if the increase in global average surface temperature is not a linear trend, but an accelerating one? Do we dare to extrapolate so bravely?

It is only now that 2023 is spectacularly breaking one record after another when it comes to the extreme weather and climate disasters that are sweeping across the planet, that I see scientists considering accelerating progression a little more. Scientists in general and climate scientists in particular are extremely reluctant to, er, 'act dramatic'. They always follow the facts and evidence and they will rarely make bold statements about the future.

So, I did it, I dared to extrapolate. Just using a ruler, pencil and eraser.

https://www.demensalsgrens.nl/grafieken/

I took two of those graphs and I worked out both linear and accelerating scenarios. What I saw didn't exactly make me optimistic. Because if there is indeed accelerated warming — that means we have passed the "elbow" of the exponential curve — then future events will only follow a chaotic, that is, a completely unpredictable trajectory. It will seem as if 2023 was just a “mild example” of human-induced climate change spiraling out of control.

Take a look for yourself at the results of my manual labor. I have included tables where you can see the corresponding warming per decade per scenario.

I'm curious what feelings this brings up for you.

6.18
SM615
Why don't we just do what the indigenous tribes do?

I saw a post and article of someone saying that we should listen to indigenous tribes to learn from them and solve our existential problems accordingly. This was my response:

"We can listen to indigenous people until we're blue in the face, but it won't make any difference. We might be in awe, maybe camp with them for a while, search for water sources, make fire, learn how to follow animal tracks, hunt, kill and prepare, find roots and fruits, eat together, tend to the children, tell stories and sing songs at the campfire. And thén what?

The only reason why indigenous tribes are still living in relative harmony to their natural environment is because they are isolated and their numbers are small. If you were to relocate them to modern society, they would be driving a car, cursing at traffic jams and stressing over needless material possessions, whilst glued to their smartphones and watching Netflix in no time. Homo sapiens, the 'wise, modern, thinking man' was never meant to be with billions. We were meant to roam the savannas in small social groups of say, 25 people.

If we want to go back to that era, we have to reverse population growth of 1% per year to a 1% yearly decline. That will bring us to 6 billion people in 2050 (a

good start) and 1,3 billion by the end of the century (the ideal number). But instead, we're going for 10 billion people in 2050.

What do yóu think is going to happen?"

6.19
SM619
Getting closer and closer to the core problem

I saw a post referring to an article that described 'ecological overshoot' as the overarching driver of the collapse of human civilization. The article ended as follows:

"[Mitigating overshoot] will require a concerted multi-disciplinary effort to identify the best ways to produce a rapid global adoption of new norms for consumption, reproduction and waste. The survival of complex life on Earth is the goal."

This was my response:

"Good read! We're getting closer and closer to the core problem of the human species, the overarching existential issue: overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat.

— Environmental pollution, biodiversity loss and climate change are mere symptoms of overshoot.
— Plastics pollution, decline of bee populations and rising global average surface temperatures are sub-symptoms of overshoot.

Any attempt to solve our existential predicament by focusing on (sub)symptoms will fail.

I have attached a simple depiction of the concept of overshoot in the comment section. It's a universal law, like the laws of physics. It will happen to any species that exceeds the carrying capacity of its habitat. And it is already happening to us for over 70 years.

https://www.demensalsgrens.nl/grafieken/

Overshoot is not some novel discovery we've only just come aware of. It's a well-known and studied scientific concept (*). The 'Collapse Survival Site' provides detailed information about the science behind overshoot:

https://collapsesurvivalsite.com/reasons-civilization-will-collapse/
[10 Reasons Why Civilization Will Collapse]

https://collapsesurvivalsite.com/overshoot/
[On The Concept of Overshoot]

https://collapsesurvivalsite.com/collapse-catch-up-august-2023/
[Collapse Catch-Up August 2023]

Overshoot ís happening. Our societies wíll collapse. We have passed the 'elbow' of the exponential curve. It's a mathematical certainty and it will be fast and furious."

(*) If you're interested in the concept of overshoot, see Appendix IV.

6.20
SM622
Habitat says no: enough is enough

Somebody wrote a heartwarming post about our existential predicament, in a fascinating combination of hope and doom. The push ended as follows:

"But even as the rains fall, fires burn, and bombs fall, it is never too late to choose a different path. Even as the rivers burst, crops fail, and hospitals overflow, it is never too late to choose a different path. Even as the forecast is given, preparations are made, as the world looks on, it is never too late to choose a different path. To those who are, or who would become, our leaders, please choose a different path."

This was my response:

"We keep stating the obvious:

— Of course, we can choose a different path.
— Of course, we can avoid the worse of things by acting now.
— Of course, we can do it differently in the future, if we only learn from the mistakes of the past.

But more importantly, we are asking the wrong questions. None of this matters. None of anything anyone says matters. Not anymore. Now, please, here me out, because I am nót down on my knees begging for mercy. And I'm not taking to the rooftops in my underwear shouting that we're DOOMED and

that we're all going to DIE. I'm just saying that we're still suggesting that it's not too late, that we can still dó something about our existential predicament, if only we start now. If only we choose a different path.

But we don't. Because we can't.

Over the past 70 years we have been exceeding the carrying capacity of our habitat. Relentlessly. It's a phenomenon known as overshoot or overconsumption (*). It's the nature of the beast, Homo sapiens, the 'wise, thinking, modern man', extremely skilled in two things: survival and procreation. We are with 8 billion people, growing to 10 billion in 2050. And now we pay the price for our primary attributes.

Habitat says no. Enough is enough."

(*) Environmental pollution, destruction of the biodiversity and climate change are symptoms of overshoot or overconsumption: when a population exceeds the carrying capacity of its habitat. If you're interested in the concept of overshoot, see Appendix IV.

6.21
SM623
The ultimate problem

I see lots of posts claiming to have the 'ultimate solution' to the overarching problem of ecological overshoot, when a population exceeds the carrying capacity of its habitat. Usually it's an extremely specific idea, thought, concept or theory that lies close to the individual's interest, expertise or skill. If the only thing you have is a hammer, everything looks like a nail. And usually, it contains a lot of personal pronouns, like 'we', 'us' and 'our' in it. 'In order for "us" to solve "our" problems, "we" have to do this and that.'

I do that too. But only if it's clear who 'we' are. Because when we discuss global problems, we must be aware that 'we' implies the human species as a whole. And there lies the ultimate problem. Because 'we' don't exist! The global community and the 200 countries of the world don't exist either. 'We' are scattered, divided and fragmented across hundreds of millions of small social groups of family, household, friends, colleagues and teammates, that primarily take care of themselves first. This *Fragmentation Problem* lies at the heart of the overarching issue of ecological overshoot.

All global problems — environmental pollution, biodiversity loss, climate change, inequality, poverty — can be expressed in big numbers — amount of global greenhouse emissions, global plastics pollution in the oceans, global income inequality, etcetera — but they are ultimately scattered and fragmented across hundreds of millions of 'interested parties', all with specific economic, cultural and political invested interests. In order to solve 'our' global problems,

we have to deal with not one, or two hundred, or a few thousand, but hundreds of millions of opinions, interests and priorities. Every time. Everywhere. All the time.

So, how do you apply this to yóur solution? How do you scale up? Because if we think we have global solution power, we are gravely mistaken. We as a species are fundamentally divided in times when we are in desperate need of global unification. But we can't unite on a global scale. Because that's not who we are. It's not in our nature to be with billions. We were never meant to be. We were meant to roam the savannas in small social groups of, say, max 25 people each, living in relative harmony with our living environment.

But 'we', the human species, we excel in two things: survival and procreation. We are with 8 billion people, growing with 1% each year. That will bring us to 10 billion in 2050. All of these people want to get rich, healthy, happy and grow old. Nobody wants to decline or reduce. We all want to at least keep what we've got, preferably get a little bit more. It's simply unsustainable. If we were to reverse the 1% of population growth to 1% decline, we would reach 6 billion people in 2050 (a good start) and 1,3 billion by the end of the next century (the ideal number).

Something to quietly contemplate, I would suggest.

6.22
SM641
The 10 (not 6) psychological responses to climate change

I saw a post that referred to an article with the header 'The 6 psychological responses to climate change'.

This is what the post said:

"When it comes to climate opinions, people are often reduced to 'believers' and 'deniers.' But it's not that simple. I prefer what's called the six categories that the Yale Program on Climate Change Communication developed:

1. Alarmed: Know that climate change is caused by humans and support action.
2. Concerned: Know that climate change is a reality but think it's a distant issue.
3. Cautious: Have questions and doubts.
4. Disengaged: Lack exposure to the issue.
5. Doubtful: Doubt due to identity or ideology concerns.
6. Dismissive: Reject climate change as a hoax." [sic]

This is the article:

https://www.weforum.org/agenda/2023/10/climate-change-psychological-response/?emailType=Agenda%20Weekly

This was my response:

"I'm awfully sorry for the Yale Program on Climate Change Communication, but I strongly believe there are 4 categories missing:

1. Resilient: Able to withstand and survive the consequences of global societal collapse.
2. Combative: Ready and eager to fight, disrupt and demolish.
3. Rebellious: Show the desire to resist authority, control and convention.
4. Confrontational: Dare to say that we've waited too long, that it's too late, that collapse is immanent.
5. Alarmed: Know that climate change is caused by humans and support action.
6. Concerned: Know that climate change is a reality but think it's a distant issue.
7. Cautious: Have questions and doubts.
8. Disengaged: Lack exposure to the issue.
9. Doubtful: Doubt due to identity or ideology concerns.
10. Dismissive: Reject climate change as a hoax.

We should already be way past being 'alarmed'. Because this year — 2023 — is the year we passed 'the elbow' of the exponential curve. We should be way more confrontational and rebellious, even combative to a certain degree, to get the message across that societal collapse is immanent. And we must get resilient too, real fast, because suprasystemic collapse as a result of overshoot or overconsumption (*) is now locked in.

Beware, the perfect storm is coming."

(*) Environmental pollution, destruction of the biodiversity and climate change are symptoms of overshoot or overconsumption: when a population exceeds the carrying capacity of its habitat. If you're interested in the concept of overshoot, see Appendix IV.

Epilogue

SM575
Why we just can't grasp the concept of 'extinction'

The extinction of a species due to overshoot or overconsumption — when a population exceeds the carrying capacity of its habitat — is an unknown, abstract and insignificant concept. Unknown, because as a species you only experience it once. Abstract, because it falls completely outside one's own experience. Insignificant, because our daily concerns are based entirely on survival and reproduction. As far as we can tell, there is only one species on Earth that is aware of its own mortality: humans. All other species just 'are' and do not know the biological and philosophical concept of 'dying' or 'being dead'.

The human species Homo sapiens is still growing in size, currently at about 1% per year. That takes us from 8 billion people to 10 billion in 2050. All those people want to get rich, healthy, happy and grow old. No one wants to decline or reduce. Everybody wants to keep at least what they've got, preferably get a little bit more. That is simply unsustainable.

Environmental pollution, biodiversity loss and climate change are mere symptoms of overconsumption. That has been going on for over 70 years now and is currently accelerating. We have pumped so much greenhouse gas into our atmosphere that 2023 was the year we passed the 'elbow' of the exponential curve, the 'point of no return'. The vitosphere, the joint venture of atmosphere,

biosphere, lithosphere, hydrosphere and cryosphere has entered a state of cascade failure, the precursor to suprasystemic collapse.

The jet stream is meandering and accelerating. The oceans are overheating, acidifying and deoxygenating. The global ocean currents are destabilizing and slowing down. These are the main Management & Control Systems of Planet Earth and they do not have an on/off switch, or a reset button, or an edit/undo function.

So, what does “extinction” mean to us? Well, it doesn’t resemble a meteorite strike or an atomic bomb. It is true that from now on each generation will be worse off than the last, but it will take another three or four generations, let’s say about a hundred years, before the population becomes seriously endangered. But we will make desperate attempts to escape our fate. By closing our borders to inevitable mass migrations. By going to war with other countries to protect our people, our culture and our resources. And by continuing to burn fossil fuels until the very last minute.

This generation – yes, that is yóu! – will already witness the beginning of the end. Our children will live on the edge of hell and our grandchildren will inherit a world devoid of prosperity and well-being. Whether we will disappear as a species entirely is anyone's guess. Yet it is good to realize that 99.99% of all species that have ever lived on Earth got extinct. However, we are the only ones accelerating our demise.

And that is why we may no longer call ourselves *Homo sapiens*, 'the wise, thinking, modern man'. We are now demoted to *Homo infantilicus*.

Bart Flos – Helmond | November 2023 – April 2024.

Appendix I

Blurb of ‘Our Inner Limits – On the Unbending Barriers of Being’

Please allow me to introduce: Professor Pels is a scientist and proponent of rational discourse. He embraces nuance and bases his work on observation, research, facts and evidence. Mr. Luis, on the other hand, mainly lets his gut feelings speak. He always tells it like it is, straight from the heart and straight to the point.

What would happen if we pitted the two against each other to discuss the state of the world? About how we live and work together. That we constantly encounter barriers to progress. That division and inequality is increasing. That economy comes before ecology. And that we can now see the destructive consequences for the environment, biodiversity and climate everywhere on our planet.

– Prof. Pels: 'So you claim that we have no chance of surviving in the long term, that we are doomed to collapse. That's a bit too short-sighted for me. I believe that it is not yet too late, that there are still opportunities and possibilities.'
– Mr. Luis: 'Go right ahead, sir. As long as I can say what it réally means.'

– Prof. Pels: 'Fine with me. Let's agree that you will keep me on my toes while I put people, our organizations and ultimately the entire human civilization under a magnifying glass.'
– Mr. Luis: 'Whatever you want. But I will defend my position with all my heart and soul."
– Prof. Pels: 'And I will mine. I suggest we at least start at the beginning.'

Which of these two gentlemen will be right in the end, do you think?

In *Our Inner Limits*, author, speaker and change specialist Bart Flos assembles and compiles all his previous work. Because whether it concerns an individual, group, society or suprasystem, we see deep traces everywhere with the same signature: that of the social group primate and hunter-gatherer Homo sapiens. Are we able to break through the rigid barriers of our existence? We will see.

Appendix II

"What is your book about?"

When people ask me what my books are about, I always refer to the blurb. A lot of time and energy goes into writing a short, powerful summary of your book (see Appendix I).

My book *Our Inner Limits* consists of two parts:

Part 1 — People and Organization
Part 2 — People and Civilization

And it is based on two fundamental paradoxes:

1 — The Collaboration Paradox: we collaborate to fail.
2 — The Existence Paradox: we coexist to get extinct.

I start my journey with the individual and then move through group and society to the suprasystem: Mother Earth and human civilization. That's quite a lot for one book! It is 384 pages, 624 grams 'clean on the hook'. It's quite the journey, but in the end, I hope it's worth the travel.

This is the structure of my book:

Chapter 1 | Context
About the dilemmas, barriers and paradoxes of the nature of the beast: Homo sapiens, 'the wise, modern, thinking man'.

PART 1 | PEOPLE AND ORGANIZATION

Chapter 2 | About people, groups and behavior
How the individual influences the small social group and vice versa: 'when you know your small group, you know your organization.'

Chapter 3 | Our organizational dilemmas
How leadership determines corporate culture and that we can learn much more about this by asking 'why-questions'.

Chapter 4 | The concept of maturity
Why organizational maturity is always about soft skills and never about hard skills: is it okay to be middle-mature?

Chapter 5 | The highly mature organization
What we need to do to solve the collaboration paradox and how we can circumvent the definition of insanity.

PART 2 | PEOPLE AND CIVILIZATION

Chapter 6 | Who we are and what we do
Human progress is not a primary goal, but only a side-effect: are we doomed to get extinct?

Chapter 7 | Our big problems
Why climate change is the clearest symptom of overshoot (overconsumption) and what the world's super-rich have to do with it.

Chapter 8 | The climate confrontation
No climate book, report or conference has ever changed rising greenhouse gas emissions. Why is that and where does it lead?

Chapter 9 | The highly mature civilization
On the suprasystem 2.0: about *neocology* and *neoconomics* and how to keep your finger tight on the climate pulse.

In *Our Inner Limits* I provide you, the honorable reader, with every opportunity to draw your own conclusions about the nature of the beast Homo sapiens. I'm curious to learn what you will come up with.

www.demensalsgrens.nl

Appendix III

The scientific method

Would you like to learn more about the scientific method? Click here:

https://en.wikipedia.org/wiki/Scientific_method

Would you like to learn more about the scientific theory? Click here:

https://en.wikipedia.org/wiki/Scientific_theory

Would you like to learn more about science in general? Click here:

https://en.wikipedia.org/wiki/Science

(Source: Wikipedia).

Appendix IV

The concept of overshoot or overconsumption

Environmental pollution, destruction of the biodiversity and climate change are symptoms of overshoot or overconsumption: when a population exceeds the carrying capacity of its habitat. Overshoot is not just beginning. It's been going on for over half a century now and currently in its accelerating phase.

Overconsumption is always met with collapse; it's locked into the system. For us that implies the suprasystemic collapse of the global infrastructure. If you're interested in the concept of overshoot, you might want to study the works of Professor William Rees:

https://en.m.wikipedia.org/wiki/William_E._Rees

[Wikipedia Profile]

"William Rees, FRSC (born December 18, 1943), is Professor Emeritus at the University of British Columbia and former director of the School of Community and Regional Planning (SCARP) at UBC.

Rees taught at the University of British Columbia from 1969–70 until his retirement in 2011–12, but has since continued his writing and research. His primary interest is in public policy and planning relating to global

environmental trends and the ecological conditions for sustainable socioeconomic development. He is the originator of the "ecological footprint" concept and co-developer of the method."

https://youtu.be/LQTuDttP2Yg

['The Fundamental Issue: Overshoot']

And: https://youtu.be/U3GB191UDiI

['Will Modern Civilization be the Death of Us?']

And, if you don't have that much time to spend:

https://youtu.be/03nCFwhV-9E

['What is a sustainable population?']

Or, if you réally want to do a deep dive into the subject matter:

https://www.mdpi.com/2673-4060/4/3/32#:~:text=In%20the%20simplest%20terms%2C%20overshoot,rising%20incomes%20and%20population%20growth

['The Human Ecology of Overshoot: Why a Major "Population Correction" is Inevitable']

Appendix V

Useful links

1. https://climateactionaustralia.wordpress.com/2023/10/19/10-reasons-our-civilization-will-soon-collapse/

2. https://collapsesurvivalsite.com/reasons-civilization-will-collapse/

3. https://insideclimatenews.org/news/11102023/scientists-disagree-about-drivers-of-septembers-temperature-spike/

4. https://www.linkedin.com/pulse/why-do-scientists-make-fuss-1%C2%BAc-2%C2%BAc-increase-average-global-maxton

5. https://journals.sagepub.com/doi/10.1177/00368504231201372 [Scientific study on overshoot]

6. https://youtu.be/23nDxPSI0Aw?si=0jcO51Eg5bwsDeCI [Jonathan Pie: The World's End]

7. https://climatechangetracker.org/

8. https://climatechangetracker.org/igcc

9. https://youtu.be/t2C6NfFIK_g [The Anthropocene: where are we going?]

10. https://youtu.be/pNYp6oc37ds [The Newsroom: The Climate Change Interview]

11. https://www.motherjones.com/politics/2014/11/climate-desk-fact-checks-aaron-sorkins-climate-science-newsroom/

12. https://youtu.be/ww47bR86wSc [Bonhoeffer's Theory of Stupidity]

13. https://youtu.be/8erFXZmp7fo [Arctic heat is coming our way]

14. https://youtu.be/Qf03U04rqGQ [31 logical fallacies in 8 minutes]

15. https://www.newyorker.com/culture/cultural-comment/what-if-we-stopped-pretending

16. https://climatereanalyzer.org/clim/sst_daily/

17. https://youtu.be/ALduFqONN58 [I looked at the recent bird flu data, and now I'm really scared]

18. https://www-bbc-co-uk.cdn.ampproject.org/c/s/www.bbc.co.uk/news/science-environment-65602293.amp [About 1,5C of Global Warming]

19. https://arstechnica.com/science/2023/04/an-ominous-heating-event-is-unfolding-in-the-oceans/

20. https://showyourstripes.info/c/ocean/arcticocean/baffinbay

21. https://www-bbc-co-uk.cdn.ampproject.org/c/s/www.bbc.co.uk/news/science-environment-65339934.amp [About the El Niño / La Niña phenomenon]

22. https://thebulletin-org.cdn.ampproject.org/c/s/thebulletin.org/2023/04/faster-than-forecast-climate-impacts-trigger-tipping-points-in-the-earth-system/amp/

23. https://vimeo.com/809258916/92b420d98a [The dangers of AI (duo presentation)]

24. https://gml.noaa.gov/ccgg/trends/ [On Greenhouse Gas Emissions]

25. http://arctic-news.blogspot.com/2023/04/ipcc-keeps-downplaying-the-danger-even-as-reality-strikes.html?m=1

26. http://arctic-news.blogspot.com/2023/03/sea-surface-temperature-at-record-high.html?m=1 [Considering this, a Climate Emergency should be declared]

27. https://www-bbc-com.cdn.ampproject.org/c/s/www.bbc.com/news/world-australia-65120327.amp [Antarctic oceans currently heading for collapse]

28. https://indica.medium.com/how-precisely-were-fucked-cad1f0e5b068

29. https://youtu.be/5dZ_lvDgevk [Documentary on AI (2019)]

30. https://sjgenco.medium.com/ten-facts-humanity-must-face-if-it-wants-to-survive-on-a-livable-planet-5de93b2f4cde

31. https://xkcd.com/1732/ [3D Graph Global Warming]

32. https://youtu.be/LKO7k0Kh7Nw [A Life-or-Death Battle | Fight for Your Life | FULL EPISODE]

33. https://youtu.be/lIEu-OW9_YA [Tipping point: immanent systemic environmental collapse]

34. https://youtu.be/x1SgmFa0r04 [NASA | A Year in the Life of Earth's CO2]

35. https://youtu.be/nfv7sIL2uK0 [Al Gore on the World Economic Forum (WEF) about climate change]

36. https://www.climate.gov/news-features/understanding-climate/understanding-arctic-polar-vortex

In 2015, author, public speaker and change specialist Bart Flos published his fifth book, *Vooruitkijken voor gevorderden* ('Futurology for Fanatics'). In this book he paints a hopeful picture of the limitless possibilities of the human species *Homo sapiens* to shape its own future.

Fast forward to 2022

Since the publication of that book, things have quickly gotten out of hand with the environment, biodiversity and climate. It prompted Flos to write his sixth book: *De mens als grens* ('Our Inner Limits'). It was much less hopeful as a plea, unfortunately, but it still contained solutions to turn the tide.

Fast forward to 2024

"After the publication of *Our Inner Limits*, I could not have imagined how quickly things would get so much worse. The year 2023 is the year that we passed the 'elbow' of the exponential curve. What we are left with now is chaos and unpredictability. I wrote almost a thousand posts about it and I didn't want them to get lost in the endless timelines of our social media platforms," says Flos.

This is one of the eleven addenda to *Our Inner Limits*, in which Flos's posts are included in book form. It takes you on a head-on confrontational journey from ignorance via climate change to overconsumption and collapse. We will break the last ultimate taboo together: daring to say that we have waited too long, that it is now too late and that we will have to suffer the consequences of our destructive collective behavior as a human species.

Want to learn more? Go to *www.demensalsgrens.nl*