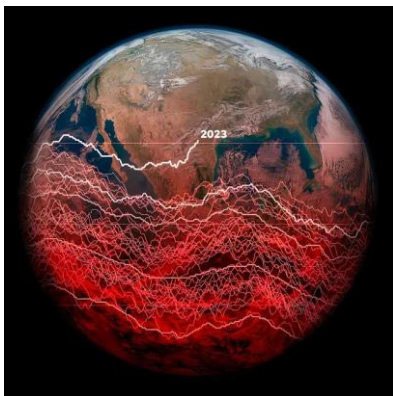


Bart Flos

OUR INNER LIMITS



BONUS – Addendum XI

**The Tough Choice:
Collapse Resilience**



The Tough Choice: Collapse Resilience

The Tough Choice: Collapse Resilience

OUR INNER LIMITS

BONUS – ADDENDUM XI

The Tough Choice: Collapse Resilience

BART FLOS



The Tough Choice: Collapse Resilience

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

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The Tough Choice: Collapse Resilience

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 'incurable optimist'. "Yeah, yeah," was the response, "Dream on." But it really was true, I was sitting on a comfortable pink cloud and I was 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 'confrontalist', 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 do 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.

The Tough Choice: Collapse Resilience

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 beginnings 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.

The Tough Choice: Collapse Resilience

Chapter 1

Looking down from above

1.1

SM849

What makes us humans tick

Somebody referred to an article that discussed the wickedness of the fossil fuel industry, hiding in dark corners to do their evil deeds, destroying our living environment to the point of collapse.

This was my response:

“Excellent post! Well written. Concise, succinct, informative. But it won’t make the slightest difference. If you were a fly at the wall of a bus full of fossil fuel executives, you wouldn’t see evil monsters rubbing their hands together in glee, greed and mischief. You wouldn’t see a group of human beings completely self-aware of the ‘evil’ they do or the boundless greed they display. You wouldn’t see a group of people deliberately trying to destroy the world and drag everybody down with them.

What you would observe is a group of highly intelligent, maybe even sympathetic executives that run their businesses as they see fit. Because the laws of the land allow it, even encourage it.

You would observe a group of people that:

- *Have found a way to make a solid buck out of a highly profitable business model, without too much effort or concern about others.*
- *Conform to each other, compare each other's wealth and aiming for more than the other.*
- *Think they do good. Good for the economy, for the prosperity and wellbeing of others and for the happiness of all.*

If we don't understand what makes us humans tick, we will never rise above ourselves.”

1.2

SM854

When a problem accelerates beyond our control, we must outpace the acceleration

The Guardian published an article with the following title:

“Global sea surface temperatures are in uncharted territories”.

I quoted from the article...:

“So, while I think these extreme temperatures provide some evidence of an acceleration in the rate of warming in recent years [...], it’s not necessarily worse than we thought.”

And wrote...:

“There it is! Even in the face of extreme anomalies that are off the charts in unprecedented ways (‘gobsmackingly bananas’ as one climate scientist put it), the scientists remain nuanced and rational. As they have always been. ‘And as they should’, I would have said a decade ago. But now perhaps they shouldn’t.

When scientists don’t understand a phenomenon, they will put on their investigation nozzles, think cap, lab coat and analysis boots. They snap to it, form a hypothesis and start testing. They observe, measure, debate. They adjust their models and keep digging. They have their data peer reviewed and

falsified. They keep at it, tweaking the numbers, doubting themselves at every turn before they publish the results in a renowned scientific magazine, where it is open to the scrutiny of other scientist.

That's fine. That's the way the scientific method works. But when global warming is running out of control, when all major KPI's are accelerating the wrong way, when our living environment enters a state of cascade failure, the precursor to suprasystemic collapse, this no longer works. We are way too slow to respond to what's happening right now.

When a problem accelerates beyond our control, we must outpace the acceleration. But we're like rabbits on the rail track, staring in the headlights of an oncoming freight train at high speed, unable to move out of its way. Our little bunny tail is shaking from excitement, but we don't blink; we're just fascinated by that big thing heading our way and just can't believe it will run us over. Maybe it will just go away and we'll wake up from the nightmare."

1.3

SM865

This is how a crisis manager would solve the climate crisis

I'm going to tell you a fairytale. The purpose is twofold:

1 – I'm going to make a point about actual, real and tangible effort.

2 – I'm going to explain the difference between local and global.

This is a thought experiment, so bear with me please. Thanks.

I've been a successful international program and crisis manager for over a decade. I'm not saying that to boast, I'm saying that because it is relevant to my story. Whenever I was asked to pick up the pieces from a botched-up project or program, I would tell the steering group/ executive committee three things:

1 – You must stick with it.

I need your loyalty more than you need mine. If you ever fuck me behind my back, I walk.

2 – People will protest and complain about me.

If that happens, you're going to say that I have the full confidence of the board and then you refer them back to mé.

3 – You will support and execute my recommendations.

No politics this time around. Trust my track record. What I say goes, just follow my lead.

Now, mind you, I'm talking about huge international ICT programs here, with hundreds of millions of dollars at stake and lots of heads on the block. And I can assure you that I laid down my terms in the politest way possible, always with a friendly smile on my face. If they stuck with it, I fixed it and went on my way.

Now, suppose that the world hires a crisis manager to fix the climate crisis (and boy, do we need one!). Suppose that we also erect a Global Executive Climate Change Mitigation Committee (the GECCMC), chaired by the newly appointed President of the United Nations of the World and supported by a Global Intervention Squad (to take over the governance of every country that doesn't adhere to the schedule). And finally, suppose that the committee has granted the crisis manager all of the demands above. The Global Crisis Manager now presents his program plan to the committee.

“Ok, if you want this fixed, this is what needs to be done, starting NOW’:

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

That is the energy equivalent of the actual, real and tangible effort to mitigate climate change. Take it or leave it.”

Do you feel it? That’s right. The moment you scale up a perfectly fine project and crisis management process to global levels, it crumbles beneath your feet. There IS no Global Committee, no Global Intervention Squad, no President of the World! And that’s why our living environment has now entered a state of cascade failure, the precursor to suprasystemic collapse. No sane crisis manager would pick up this project now. No way in hell.

1.4

SM878

Why sea level rise doesn't appeal to our senses

Somebody wrote:

“If [Antarctica’s Glacier named] Thwaites continues to retreat at current rates, it will contribute several cm’s to global sea level rise by 2100, thus been nicknamed ‘Doomsday Glacier.’” [sic]

This was my response:

“I guess this is *nó*t the way to make the general public worried about human-caused climate change and accelerated global warming. You can almost *h*ear the derogatory snorts: ‘A few centimeters in 75 years? Oh, come on! I’ve got better things to do than worry about *thát*!’

I believe we should stop talking about the year 2100 all together:

https://lnkd.in/e6zqV2_3

[‘On the difference between linear and accelerated decline’]

Perhaps this works better to make our anxiety juices flowing:

<https://lnkd.in/epswWK6S>

[‘How long can we keep accelerating until it blows?’]

Although sea level rise is as much a concern as average surface temperature increase, rising atmospheric CO₂-levels, the increase in the Earth’s energy imbalance, global ocean acidification, the meandering and accelerating jetstream, the destabilization of global ocean currents, plastics and PFAS pollution, the extinction of insect populations and the catastrophic droughts, heatwaves, downpours and floodings, it is the least ‘sexy’ one and the least ‘touchable one.’”

1.5

SM895

Blaming rich people for our global problems is petty

I quote: *“Taylor Swift is one of the biggest celebrities in the world. And the biggest celebrity climate polluter.”*

And I say: I understand why we’re doing this, blaming the filthy rich for our common problems. We like to point the finger at others. The rich and famous are the first ones to start with, right after we put them on a pedestal to adore them. Sometimes we do that simultaneously. We love to hate. We should remember though that when we point our finger at others, three fingers point right back at ourselves.

Look, don’t get me wrong. Private jets, yachts, mansions, supercars, shaking dozens of \$ 1000 bottles of champagne empty before noon? Báááád! But do you know what’s even worse? Using absolute numbers to play the blame game. I’ve added up the amounts in this post: all the mentioned rich and famous people together emit 34.000 tons of CO₂ (per year I guess, the author doesn’t mention).

Global daily (!) emissions of CO₂ of fossil fuels and industry are 100 million tons. The collective yearly emissions of this select group of superstars represent just 0,03% of daily global emissions, but only 0,00009% of yearly global emissions. And yes, that is just nine-hundred-thousandth of one

percent. Global private jet travel emits about 1,8 million tons of CO₂ per year, 1,8% of daily global emissions, but only 0,005% of global CO₂-emissions.

Let's keep our eyes on the ball here, folks. Think! Blaming rich people for our global problems is petty.

1.6

SM897

Conducting a poll is not going to change anything

A poll was done to check the ‘readiness’ of people to engage in ‘climate action’ and make this world a better place. ‘If we can’t solve the problem on a global level, let’s just ask the people down below. Perhaps they have the answer’, you can hear the pollsters say.

This was my response:

“I love these polls! Look at the numbers, it’s way better than we think. Far greater numbers of people want to make this world a better place. Yahoo! (praise be).

- Quote: *“69% of the global population has expressed a readiness to contribute 1% of their personal income towards climate action.”*

What if we told them that they must contribute 20% of their personal income and 50% of their savings? Because that’s what it really takes.

- Quote: *“[...] it’s refreshing to see that there’s a collective willingness and readiness to address climate challenges”.*

That ‘collectiveness and willingness’ is intent only, with no action on global levels. That’s where it’s getting worse at every turn.

- Quote: *“If we can just recognize we’re not as polarized as we’re told we are, more transformative action can happen.”*

I can’t believe we’re this naive! People don’t think their ‘polarized’ at all. Nobody is waking up in the morning to deliberately fuck up the environment, biodiversity and climate. Overall, we don’t think we do bad things. We blame others for the bad stuff, but ‘Me? I’m ok!’ We see what is wrong in others, but we can’t see it within ourselves.

Conducting a poll is not going to change anything.”

1.7

SM912

Nobody can predict the future

Human-caused climate change and accelerated global warming are all over the news. It's going the wrong way fast. "But nobody can predict the future", we say (*). "Who knows what technology will bring? We'll probably be fine". Perhaps they're right about the future. But it won't stop me from extrapolating the data. First, I would like to introduce you to somebody. Some guy I met at a party. I wonder, would you wanna hang out with this guy?

<https://lnkd.in/epTe56ex>

So, we're ruining our planet, the only one we've got. And to add insult to injury, mainstream climate science has been way too careful in their predictions.

<https://lnkd.in/ebhUic3G>

Yep, we have been warned and now we have to pay the price.

<https://lnkd.in/edQaaSNP>

If you add up all the latest news about the environment, biodiversity and climate, you can't help getting the feeling that the Perfect Storm is coming.

https://lnkd.in/egyrsC_q

Perhaps you want to take to the streets and join a protest rally. But what would be on your signpost?

<https://lnkd.in/evQYh35g>

Climate change isn't bound by borders, so we have to deal with the governments of 200 countries at the same time. What would a President of the United Nations of the World do about climate change, if we had one?

<https://lnkd.in/eGvixNNe>

Apparently, our future outlook is dire: human civilization is going to collapse. Are we all going to die soon? What is actually the difference between collapse and extinction?

<https://lnkd.in/eG7AvHuc>

Well, if we can't change anything about it anymore, maybe we should all have a good laugh, right? Actually, no. Irony, cynicism and sarcasm won't change a thing.

<https://lnkd.in/e3TOE8PJ>

Nah, well, most of us don't have a clue anyway about what's coming our way. Perhaps ignorance truly is bliss.

https://lnkd.in/eDt9PR_q

So, I have a question for you. It's not a difficult question, but it will help to scare the bejesus out of you yourself.

<https://lnkd.in/eJb87J2d>

To put it all together: are we the proverbial frogs in a pan of heating water?

<https://lnkd.in/eH5hQAQP>

And if our societies are going to collapse, how does that work exactly? Just imagine that you pull the plug of a bathtub.

<https://lnkd.in/eDanUbPW>

Yes, we are in a bad place indeed, but we're using incorrect information to determine our position. We should start using global warming KPI's to measure progress and success.

<https://lnkd.in/eB6A8c2e>

But why would we go through all that trouble? What if we're just not in it for the long haul?

<https://lnkd.in/dtBHzC4p>

And what if a major population correction is inevitable?

<https://lnkd.in/eMPYF7kT>

So, I wrote two letters. One to a fan...:

https://lnkd.in/exVs_qwg

...and one to a concerned citizen:

<https://lnkd.in/eyAh5k8w>

The only thing we have left is collapse awareness, resilience and acceptance. The first and the latter we easily understand, but what is collapse resilience exactly?

<https://lnkd.in/eatDaNYr>

Stay sharp and frosty, folks. Batten down the hatches and buckle up: the Perfect Storm IS coming.

(*) But we sure as heckfire can extrapolate the data.

1.8

SM915

Overconsumption is the Overarching Issue of Overarching Issues

Somebody here on *LinkedIn* asked his network a question:

“What is the most important global system dynamics of our time that needs attention?”

This was my answer:

“The most important global system dynamics of our time that needs all of our attention, is overshoot or overconsumption” ().*

To which he replied:

“Hey Bart, thanks for your suggestions. [...] Overconsumption leading to collapse I see as a particular expression of the law of diminishing marginal returns. But you may see that differently. Any other system dynamics you would add to the list you think?”

To which I replied in kind:

“No. Overshoot is the Big Problem of Big Problems, the Overarching Issue of Overarching Issues. It encompasses everything and it should be the only thing

on our minds. When we are distracted by symptoms-fighting we only hasten our demise. Anything we do that doesn't address overshoot is a waste of time. Every topic that we choose to address must be attached to one of the ribs or bones of the overshoot umbrella. One of most dangerous thoughts of our time is that we have to prioritize the symptoms of overshoot. That there is some kind of order in which to address them. There isn't. It's everything all at once.

The only reason why human-caused climate change and accelerated global warming, and the loss of biodiversity, and the pollution of our environment, is getting out of hand so fast — the only reason why our living environment entered a state of cascade failure last year, the precursor to suprasystemic collapse, is because we fail to come up with a globally coordinated, consolidated and consorted approach to mitigate the consequences of overshoot.

It's a long sentence, but somebody had to write that down.

All jokes aside: we should stop debating the issue and get going already. Or at least answer the pressing question: why aren't we going already?"

(*) See Appendix IV.

1.9

SM930

When you wake up from your winter slumber

Somebody must have woken up from a deep winter sleep, shaking his head and taking a close look around him, being startled by the state of affairs and frightened by the speed of development. “Any good ideas?” was the question to his audience. What he meant was:

“Any good ideas about fixing human-caused climate change and accelerated global warming?”

This was my answer:

“Yes. Plenty of good ideas. There’s a zillion of good ideas. We’ve been accumulating good ideas for over half a century now. Some of these good ideas are brilliant but unpractical, others are practical but less brilliant. Some ideas however are brilliant and practical. From the latter category we also have zillions. It’s one big pile of books, reports, analysis, scientific papers and conferences inundated with zillions of good ideas. And we are debating all these good ideas until we reach all kinds of new shades of blue in the face. We have organized 28 COPs in as many years and discussed all these good ideas with hundreds of thousands of people from all over the world.

As we speak, countless initiatives are undertaken and discussion groups formed and committees assembled to produce, enhance and debate these good ideas. And all this time the global warming KPI's keep going up. Global average surface temperature, atmospheric greenhouse gas levels, the Earth's energy imbalance, ocean acidity and sea level rise: all keep going up in acceleration mode. But we have all these good ideas piled up. And we keep discussing them. More good ideas are added. We discuss them too. *Ad infinitum.*

Do you see where I'm getting at here?"

1.10

SM937

My proposal to finally do something about our existential predicament

I saw yet another post by a concerned Earth citizen, describing the dire predicament we are all in, considering the state of affairs with the environment, biodiversity and climate. It was a long list of our shortcomings as a species, the consequences for our living environment and how bad it was going to get if we didn't break our filthy habits.

This was my response:

“Wow! Sounds ominous indeed. We need to do something!

So, I propose the following:

1 – Let's organize an international conference to which we invite all the leaders of the world.

2 – We allow them to bring with them all required lobbyists, advocates and specialists.

3 – We organize the conference in a country that has the most experience in how we got into this mess.

4 – We have the conference chaired by an expert in the means and materials that created the Great Wealth of the neoliberal, capitalistic, consumeristic, growth-economic free market.

5 – We invite 100.000+ people and we allow them to fly to the location and stay at luxury resorts so they can all be well-rested and fed.

6 – We reserve 10 days for the conference and spare no expense.

7 – During the conference we engage in countless workshops, presentations and discussions from which the results are entered into the end report.

8 – Nobody leaves the conference until we have reached explicit agreement on an end report that will have something in it for everybody.

9 – We'll write the end report in such a way that everybody can interpret, ignore and abuse it at will.

10 – We go back to business as usual.

Oh heck! We did that 28 times already.

Damn! Now what?"

The Tough Choice: Collapse Resilience

Chapter 2

The frontal confrontation

2.1

SM846a

In a world of accelerated global warming

I saw a post referring to an article from the *CarbonBrief* initiative with the following title:

“What the new IPCC report says about when world may pass 1,5C and 2C”.

This was my response:

“This article was authored in October 2021. That’s ancient. We hadn’t seen 2023 yet. In a world of accelerated global warming, the IPCC as an institute is too large, too slow and too rigid. The frequency of the IPCC reporting should actually outpace the acceleration of climate change, but the IPCC sticks to its current structure, process and reporting frequency. That’s a bad idea, because we’re already too late to adhere to the Paris agreement.

In a world of accelerated global warming the IPCC should STOP all reporting using the 20-year moving average of the global surface temperature anomaly, currently at 1,2C and with its markers of 1,5C (dead in the water) and 2,0C (unavoidable at this point). Instead, the IPCC should use the 365-day running mean of global surface temperature anomaly, which is already at 1,5C and will pass the 2,0C marker in 2034.

In a world of accelerated global warming the IPCC must become a Lean Mean Climate Machine with a Rapid Assessment and Reporting Squad, marching ahead of the sluggish central core, which keeps overthinking everything before getting the next report out.

In a world of accelerated global warming <big sigh> none of this is going to happen. We are too large, too slow and too rigid. We are dead in the water.”

2.2

SM847

I turned from incorrigible techno-optimist to confrontalist within a decade

This is what a techno-optimist says:

“Yes, climate change is bad; we’ve made a mess. But it’s not too late. We can still fix it with the deployment of renewables technology. But we all need to work together and really speed things up”.

This is what a confrontalist says:

“Yes, climate change is bad and it’s getting worse fast. But we are too late to fix it. We’ve waited too long. We’ve had our chance and blew it. The only thing left is collapse awareness, resilience and acceptance”.

The similarity between the two is that they both acknowledge the science of human-caused climate change and accelerated global warming. The difference is obvious. I am a confrontalist, because only a frontal confrontation with reality might open our eyes for what is coming our way: a runaway climate leading to a hothouse Earth.

But I’m not spit-balling or fearmongering here. I follow the science where it leads me. The only thing I do next is to extrapolate the data. If you would like to learn how I made such a profound transformation: I have authored 850

posts over the past 15 months and captured them in 10 addenda to my 6th book (printable pdf-books you can download for free from my website), 4 in Dutch and 6 in English:

– In Dutch:

Addendum I – Het begin van het einde: onwetendheid

<https://lnkd.in/eqqd3irs>

Addendum II – De frontale confrontatie: klimaatverandering

<https://lnkd.in/evck9YfD>

Addendum III – Het grote probleem: overconsumptie

<https://lnkd.in/eUjj9dN>

Addendum IV – Het laatste taboe: ineenstorting

<https://lnkd.in/eKurymx6>

– In English:

Addendum V – The beginning of the end: ignorance

https://lnkd.in/e_e7ZsqW

Addendum VI – The frontal confrontation: climate change

<https://lnkd.in/eDVNu62V>

Addendum VII — The big problem: overconsumption

<https://lnkd.in/e5xzMzDM>

Addendum VIII — The final taboo: collapse

<https://lnkd.in/exOZQP36>

— BONUS addenda in English:

BONUS - Addendum IX — The next step: collapse awareness

https://lnkd.in/eZY_xfSv

BONUS - Addendum X — The last resort: collapse acceptance

<https://lnkd.in/egWnXkyc>

Stay sharp and frosty, people! It's only just beginning.

2.3

SM851

Climate change is the ultimate unification test – and we are going to fail it

On the common enemy principle

This is a confrontational post. It's going to provoke you, ruffle up your feathers and rattle your cage. It is probably going to go against everything you believe in and all you stand for. Still, it needs to be written. Because it is the bitter truth about our existential predicament.

And now for a less dramatic tone of voice:

We are facing a common enemy: human-caused climate change. Climate change knows no boundaries, it has no economic, cultural, social, spiritual or infrastructural vested interest. It just faces us head on with the consequences of our collective behavior. That's it. What we put in, it pukes out.

Global warming is now accelerating, whether we 'believe' in it or not. You can't look down, look away, look up (pun intended) to make it go away. It's not a matter of what you believe, or a matter of political choice ('the left is pro/ the right is anti-'), it's what the scientific data tells us.

→ *And NO, science is NOT 'just another opinion'.*

In the spring of 2023 (and yes, we can pinpoint that as exactly as that sounds) our living environment entered a state of cascade failure, the precursor to suprasystemic collapse. We have passed the elbow of the exponential curve. Collapse is now locked in, as a matter of natural law.

→ *And NO, the rapid global deployment of renewables technology is NÓT going to save us! (see comment section)*

Now, we might believe that our common enemy is going to unite us globally. That is called the Common Enemy Principle, closely related to the phrase ‘the enemy of my enemy is my friend’. We might believe that this global problem that has no boundaries, will lead to global unification, that we will finally embrace and love each other, and peacefully unite all 200 countries of the world to fight our common enemy head on, in unison, without pride or prejudice.

→ Because we did that before, we say, fighting a common enemy, in WWI and WWII, when we created a United Front and restored order to the world. Right? *WRONG!* We only did that to protect our own interests and stabilize our world economy to keep on trading and grow the economy.

→ Because we did that before, we say, fighting our common enemy, during the Corona pandemic, when we created a vaccine to help each other to live another day without the threat of infection, disease and death. Right? *WRONG!* We manufactured the vaccines for ourselves first, allowing the virus to mutate elsewhere, to protect our own interests and safeguard a stable world economy to keep on trading and grow the economy.

And that's why we will fail the final test, our final exam: fighting the worst common enemy in the history of mankind: overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat. We have been failing this exam for over 70 years now and we will keep failing it until there's nothing more to put to the test.

2.4

SM856

Population decline is the ultimate discussion taboo

Voluntary population decline is a no-go area. We just don't want to talk about it and we avoid the topic like the plague. But even if we did discuss it and seriously contemplate the option, there's a couple of reasons why voluntary population decline will never work:

1 – Free will

2 – Freedom of speech

3 – The free market

4 – The primary attributes of the species Homo sapiens: survival and procreation

5 – The Fragmentation Problem ()*

*6 – Pronatalism (**)*

7 – The absence of a World Government, a United Nations of the World, a Global President, a Global Impossible Mission Force.

8 – Failed earlier attempts: the Chinese have tried with their 'one-child-policy' and failed miserably.

9 – It would involve the infringement of universal human rights and amending the constitution of all the 200 nations of the world simultaneously.

10 – It's the ultimate discussion taboo, bringing it back to square one.

But the choices here are truly binary: either we choose for global population decline voluntarily, or suprasystemic collapse will do it to us for free.

(*) <https://lnkd.in/e5hsvTSc>

['The Fragmentation Problem — Why There Are No Solutions to Our Global Problems']

(**) <https://en.m.wikipedia.org/wiki/Natalism>

The policy or practice of encouraging people to have children; the promotion of childbearing.

2.5

SM867

Are we scared enough about climate change?

I think not. Recently I posted about the global acidification of our oceans; you might want to read that first:

<https://lnkd.in/eSpKnTAh> [‘Acceleration of global ocean acidification’]

The more CO₂ we pump into the atmosphere, the more our oceans will acidify. “[A pH-level of] 7.95 is the limit”, Tomi Nyman says. “We are at 8.05. At 7.95 we lose all life in the oceans and approximately 70% of global oxygen production capacity”.

(Please note: the lower the pH-level, the higher the acidity).

This is truly terrible news, but I bet it doesn’t even bring one shiver down your spine. In fact, if I don’t get specific real soon, you’ll probably scroll on. So here goes:

Look at the first of 7 images attached to this post. It shows the ‘pH in the Global Ocean’ from 1980 to 2022. You can see the trend line and that appears to be pretty much linear. But eyes can be deceiving. The rate of decline is actually accelerating.

I wrote another post about the difference between linear and accelerated decline if you're interested: https://lnkd.in/e6zqV2_3

I have taken the liberty to pick up my old pencil, ruler and eraser and do some extrapolation myself. I've done that before with the global average surface temperature trends, as you can see in the other images. Look at the second of 7 images. I have created 10 scenarios: 5 linear (A-E) and 5 accelerated (F-J). Let's look at the linear scenarios first. Based on the 1982-1987 trend we would cross the 'pH 7,95 threshold' in 2090 (scenario A).

But if we look at the 2010/2020 trend, we move to 2073; 17 years earlier (scenario D). But it doesn't stop there. Looking at the 2015/2022 trend we pass the 'pH 7,95 barrier' already in 2066, 24 years earlier! (Scenario E). Each time we check a 7- or 10-year period moving forward, the 'pH 7,95-year' creeps up on us. See what I'm getting at here? Clearly the trend is not linear at all, the entire process is accelerating.

To give us a glimpse of what accelerated decline implicates, I have created 5 additional scenarios, with non-linear curves. Now it gets really interesting. Based on the mildest scenario F we will pass the 'pH 7,95-threshold' in 2060. But the worst-case scenario J predicts that we will pass that barrier already in 2046, only two decades from now! How do you like them apples? Do you feel a shiver now? I did.

For reasons of scientific prudence (and to not get you guys all worked up about it), I will take the middle ground and talk about scenario H now. In that scenario we will pass the 'pH 7,95-threshold' in 2053. So, what happens then? Well, one thing's for sure, we won't all horribly start to suffocate at exactly 00:00:00hrs on the 1st of January, grabbing our throats and staring at

each other in agony, with protruding eyes, grasping for random objects in our last struggle before the lights go out. That's not how our civilization will come to an end.

But I can tell you this: if our oceans die, we die along with them.

2.6

SM876

Extending the shivers down our spine

Somebody wrote a post about the ecological decline of Ireland’s largest lake and ended his analysis as follows:

“[...] this shallow body of water and its surrounding wetlands may have shifted beyond a state of decline into cascading ecosystem collapse. Reading those words sends shivers down my spine.”

This was my response:

“It might send shivers down your spine, but will your shivers extend beyond Ireland’s largest lake, I wonder. Don’t get me wrong: this is a disconcerting read, but it is also perfectly normal. We shouldn’t be surprised by it at all. This is exactly what you would expect when a species exceeds the carrying capacity of its habitat for too long, a concept called overshoot or overconsumption. We are that species, we, *Homo sapiens*, ‘the wise, thinking modern man’. Now let me try to extend your shivers to all of us, to put your post in perspective.

This example of ecosystem collapse is just a local, regional example, but the processes that dictate it are natural laws, applicable to all flora and fauna. Any species of animal or plant that exceeds the carrying capacity of its habitat for too long, will collapse. It is inescapable. In the spring of 2023, our living environment entered a state of cascade failure (see comment section), the precursor to suprasystemic collapse.

Like Ireland's largest lake, we as a species are collapsing too. As we speak.”

2.7

SM88o

When scientists get really worried, we should be too

A climate scientists wrote:

“[Accelerating global warming is] quite scary, partly because I’m not hearing any scientists that have a convincing explanation of why it is we’ve got such a departure. [...] We’re used to having a fairly good handle on things. But the impression at the moment is that things have gone further and faster than we expected. That’s an uncomfortable place as a scientist to be.”

This was my response:

“Now there’s some disturbing news! It’s like taking an intercontinental flight. As long as the cabin crew is serving drinks and smiles, all is swell and dandy. But if they rush past you with grim faces, ignoring your questions and buckling up, ready to put their heads between their knees, you’d better buckle up too, real fast. That is the equivalent of scientists taken aback by actual, current events spiraling out of control.

Look, I hate to say it, but I’m doing it anyway: I told you so. In the charts we can almost see the exact moment our living environment entered a state of cascade failure, the precursor to suprasystemic collapse. Now, what did we expect? That we could just keep adding greenhouse gases to a closed system

and nót see the consequences of it? That we could just add 80 million people to the human equation and nót see the damage it does?

We've been exceeding the carrying capacity of our habitat for over 70 years now. Something's gotta give. Something *is* giving. Accelerated global warming means accelerated decline. It's happening nów, in real time. Our suprasystem will collapse within the next *years*, not decades or centuries.

So yeah, we'd better batten down the hatches and buckle up The Perfect Storm is coming."

2.8

SM886b

Why we find it so hard to answer confrontational questions about climate change

I have received a variety of reactions to my diagram with the title ‘Holding the techno-optimists to account’ (see the first of 7 images to this post). Apparently, it struck a nerve with some of the techno-optimists and one even called my diagram ‘woefully incorrect’. That called for a strong rebuke, naturally.

But first, this is the stance of a techno-optimist:

“Yes, we’ve made quite the mess with the climate and all. But it’s not too late, we can still fix this with renewables technology. We just need to work closely together and speed it up a bit more”.

This was my response:

“First about my ‘woefully incorrect’ graph. I have used the moving average total of existing historical data on all 4 KPI’s. That data is freely available. Those curves clearly aren’t linear. Then I extrapolated the progression of the curves based on this data. Each curve has its margin of error going forward, but for the sake of clarity I used only middle scenario’s. For the point I’m making it doesn’t matter which scenario I display.

My extrapolation of future progression is based on a 'business as usual' scenario. If we keep at it like we're doing right now with overshoot/overconsumption, the curves will accelerate along the same path. The historic data shows no evidence whatsoever of renewables technology deployment bending the curves towards a plateau phase followed by a decline. All curves are going up in the same accelerated way. I'm provoking the issue by creating 4 possible scenarios to restore these KPI's to pre-industrial levels by 2100 and I'm challenging techno-optimists to paint me their own picture of the future progression of these curves.

Now, please, if you would be so kind, how me where these values are going to go based on the current deployment of renewables technology. Draw them in my graph, show them to me, based on your most optimistic view.

Thanks”.

Look, I hope that the techno-optimists are right and I'm wrong. I hope all will be swell and dandy soon, with all that technology coming. But currently it doesn't show any kind of impact on the accelerated tempo of global warming. The oceans are showing accelerated heating that is unprecedented. Scientists are freaked out about it, and so they should. Something far more sinister is going on than we're willing to admit: our living environment has entered a state of cascade failure, the precursor to suprasystemic collapse.

When a system seeks a new equilibrium, the process towards that new state is utterly chaotic. It is violent, ruthless and indifferent. Accelerated decline is a b*tch. It only reacts to what we add to the system. To put it more bluntly: I say that techno-optimists are wrong and have the burden of proof. They must start delivering on their promises, instead of theorizing and gloating about it.

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

2.9

SM887b

What would a President of the World do with climate alarmism?

I saw some news about the increase of ‘climate alarmism’ in the world. That the current events with the extreme weather and climate disasters washing over the planet in increasing frequency and intensity, and records being broken at unprecedented rates, could be a strong indication that there is something more sinister going on with our living environment than we are led to believe.

I happen to agree with the ‘alarmists’ and I am a self-pronounced confrontationalist. Because only a frontal confrontation with reality might open our eyes to what’s coming our way. My stance on the matter led to a reaction from a techno-optimist foundation, advocating that the current accelerated deployment of renewables technology is going to solve all of our problems and all will be swell and dandy soon.

Of course I asked them, as I always do, when they would expect the global warming KPI’s to start going down, such as the global average surface temperature, atmospheric CO₂-level, energy imbalance and ocean acidity. What would they think the values would be at in 2100? They answered by stating that even the IPCC was now rebuking climate change alarmism in the strongest possible way. Which prompted me to respond as follows:

“I guess if there was a President of the United Nations of the World, he wouldn’t want a global panic on his hand either.

– *He would rebuke climate alarmism and strike down unauthorized protests and limit them to non-public areas.*

– *He would advocate the accelerated deployment of renewables technology, but leave it up to the countries to phase out fossil fuels as they see fit (so not to interfere with national autonomy).*

– *He would condemn climate activism, pessimism, confrontalism and doomerism as ‘unwanted speech’ and restrict the movements of people that advocate it.*

– *He would limit the funding of alarmist scientists and curb them in their publication liberties.*

– *He would ignore global warming KPI’s such as average surface temperature, atmospheric CO₂-level, Earth’s energy imbalance and ocean acidity and emphasize on marginal emissions improvements on local, regional and national levels.*

– *He would subsidize and fund research in and execution of geo-engineering, as advised by the Global Executive Committee of Clean Energy Fossil Fuels (the GECCEFF).*

– *He would blame immigrants.*

In general, he would be annoyed by all that talk about the cascade failure of the living environment as precursor to suprasystemic collapse. ‘*Humbug!*’ he’ll say. ‘*Humbug!*’ We’d better batten down the hatches and buckle up: the Perfect Storm is coming.”

2.10

SM892

We are not breaking habits

Some concerned global citizen wrote a post in which she expressed her concerns about the state of the world, you know, with the environment, biodiversity and climate and all. She ended her passionate plea for help with the following question:

“How much longer are we going to wait for governments and multinational companies to act?”

This was my response:

“Let me answer that question if I may. First: this is a good post (see below). It hits the nail on the head. But this is not a national emergency. We have produced zillions of similar climate posts, books, reports, papers, analysis and international conferences already. And each time it got worse. The ominous signs are all over the place. Extreme weather and climate disasters are washing over the planet in increasing frequency and intensity. Records are off the charts. The jetstream is meandering and accelerating, the oceans are overheating, acidifying and deoxygenating, the global ocean currents are slowing down and destabilizing.

We can’t just switch that off! Those are hugely complex systems the govern our planet and they are collapsing. And yet, still, we add 150 million tons of CO₂-equivalent to the atmosphere every day. And we add 80 million people to the

human equation every year, bringing us from 8 to 10 billion people in 2050. So, how much longer are we going to wait? For as long as it takes for our societies to collapse, one by one, the poorest first, the richest last.

Clearly, we're not breaking habits. We're wrecking ourselves.”

2.11

SM900

‘What are we waiting for? Let’s do it already!’

If you can spare a few minutes, I want you to read this article as I did just now: <https://lnkd.in/eZ8pA3-B> It bears the title:

“How you can easily delay climate change today: SO₂ injection”.

Yes, it’s about geo-engineering. The author is Tomás Pueyo, self-proclaimed ‘Creator of Uncharted Territories’. He’s on LinkedIn, so, you can look him up if you want. I’m sharing this article not because I support it necessarily. I’m sharing it because it intrigues me. I would encourage you to read it all the way through. Because it’s well authored and it’s exploding with gleeful enthusiasm. You can’t help but smile at such passion and dedication.

The article is all about injecting sulfur dioxide (SO₂) into the stratosphere on a large scale. It seems to have all the science and technology behind it and it’s written as one big: *“What are we waiting for? Let’s do it already!”*

Three spontaneous thoughts came to mind:

1 – *“Who was it that said, ‘Please forgive them, for they don’t know what they’re doing’? I’m sure I’ve heard that somewhere...”*

2 – *“If it sounds too good to be true, it usually is.”*

3 – *“I have a better idea! Beneath Yellowstone National Park in Wyoming (USA) lies a dormant super-volcano. Why not dump a few nuclear bombs in there? That will réally cool things down! Because it will decimate the global population as a bonus, which will come in handy to fight overconsumption, the real overarching driver of environmental pollution, biodiversity loss and climate change.”*

Buy hey, that’s just me.

Apparently, there are no real restrictions against releasing sulfur dioxide (SO₂) into the stratosphere. If you take a boat 22 kilometers away from any shoreline, you can pretty much release whatever you want. Anyone can do it. In fact, people are already doing it!

Look, it’s probably inevitable and I don’t know whether to laugh or cry about that. Apparently, it’s not a difficult task at all and everybody can participate. Buy some hydrogen, some SO₂ and a big balloon and off you go.

– *It probably doesn’t matter that we don’t have a President of the United Nations of the World chairing a Global Executive Committee and Steering Group to ensure a coordinated, consolidated and consorted approach to get it done in agreement with 200 nations at once.*

– *It probably doesn’t matter that we are going to do this because we cherish the delusion that the Lean, Mean, Green Renewables Machine will work its magic while we phase out fossil fuels (and all will be swell and dandy in the end).*

– *It probably doesn’t matter that fossil fuel conglomerates will see this as the ideal opportunity to excavate fossil fuels until all resources are truly depleted.*

It probably doesn't. But what if it does? What if we're going to do this half-cocked, without global agreement or coordination, as gleefully enthusiastic as the author? What if we 'just do it already' and fuck it up as we have fucked up everything else? What do you think?

2.12

SM902

Would you wanna hang out with this guy?

Suppose you are at a party and you meet someone new. He looks like a nice guy — educated, intelligent, self-aware. You exchange numbers and at some point, he invites you to come visit. ‘You’ll be my guest. I’ll show you what I’ve got going up there’. You accept.

When you arrive at his place the first impression is underwhelming. It’s a nice house, sure, big, two cars on the extended driveway, front and back gardens. But as you walk to the front door you see brown grass, dried up plants, and rusted up cars. The front door opens and you’re greeted by a guy in shorts and t-shirt, two beer bottles in his hands, acting like you’ve been best pals all your life. He hugs you just a tad longer than you would have preferred and you can’t withhold a spontaneous gag reflex. This guy stinks!

‘Don’t mind the lawn, I’ve got some deferred maintenance going on there. Come in, come in! Make yourself at home!’ He thrushes that bottle of beer in your hands. It’s tepid. Your gag reflex continues, because you’re hit with that kind of thick odor you sometimes encounter when entering an unknown space. You know, the one that you feel in your eyes, kinda. You take a look around. The place is a mess! There’s food plates everywhere, covered in mold, you trip over plastic waste and what is that smell? It’s chemical, like he’s got some kind of meth lab cooking in the back.

‘Sit down, sit down!’ he says. ‘Put your legs up! Wanna bite to eat?’ You kindly refuse. Then he starts to ramble about his life. How he’s not been able to take care of his home, because he’s been in this fight with his neighbors. It’s been going on for years and it has completely escalated. Every day they threaten each other, weapons are drawn and there is a constant atmosphere of violence.

While you are listening, you see cracks in the walls, water stains on the ceilings, you hear this constant squeaking and you see plumes of dust falling down. ‘So, what do you think?’ he finally asks. ‘You’ve been so quiet, what’s going on?’ You cough again, this time out of hesitance, and say ‘Shouldn’t you take care of your house a bit more, instead of attacking your neighbors? And why can’t you just respect them as is, try to get along, live and let live?’

That sparks an unexpected response. He utters a derogatory snort and slams his beer bottle on the table. ‘You know’, he says, staring at you with a grim face. ‘If you have to ask, you won’t understand. Who are you to question my motives?’ He stands up, with eyes of hatred and contempt and says, ‘I would like you to leave now’. When you exit, he slams the door shut, shattering a window and throwing down a rotten support beam. You can hear him inside, cursing profusely, clearly cocking a shotgun. You accelerate your pace, noticing that your ass is sweating.

Now, would you wanna hang out with this guy again? And do you wanna know who he is? Congratulations, you have just met Mr. Humankind and visited his planet.

2.13

SM926

We have long forgotten how to save ourselves

Somebody wrote a post about food production and global health and concluded with the following sentence:

"We have focused on feeding the world with our industrialized production, and completely overlooked the health of our own people".

This was my response:

“Here’s some fun facts:

- *40% of global food production is wasted before, during and after production. So, we already have enough food for 11 billion people.*
- *The average daily global energy consumption per capita is 2.960 calories, whilst 2.000 calories is enough.*
- *There are now more people with overweight (obesity) in the world than underweight.*

Overpopulation is not the problem per se. It’s overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat. Overshoot is always met with collapse. It doesn’t matter which plant or animal and the size

of the habitat doesn't matter either. When you pressure a system for too long it will burst.

– *We are bursting with environmental pollution, biodiversity loss and climate change.*

– *We are bursting with intolerance, bigotry, misogyny, envy, jealousy and hatred.*

– *We are bursting with territoriality, warfare, aimless destruction, nuclear weapons threats and genocide.*

If we are feeding the world with anything, we are feeding it with a relentless stream of these bursts of self-destruction, self-defiance and useless annihilation. We are constantly being distracted by the worst of humankind and have long forgotten how to save ourselves.”

2.14

SM932

Celebrating the existence of a speck of water on a hot plate

Portugal is getting close to getting all its energy from renewables technology and is already able to sustain it for days or even weeks in a row. Their latest green achievements were once again all over the news, suggesting that we only have to follow their enlightened lead to save our world from damnation. When somebody posted about that, creating an atmosphere of ‘See? We’re almost there. Just hang on a little bit longer, salvation is right around the corner!’, the science-optimist adage, I had to do something. So, I responded as follows:

“Let’s keep our eyes on the ball here, folks, before we start doing the victory dance. Portugal’s yearly CO₂-emissions are about 0,04 gigaton. Europe’s yearly CO₂-emissions are 2,5 gigaton. Global CO₂-emissions are 37 gigaton. If Portugal reduces CO₂-emissions to zero, that’s just 1,6% of Europe’s emissions and only 0,1% of global emissions. If Europe would reduce their emissions to zero in its entirety it would only be about 7% of global emissions.

The only level that counts is the global level. Last year CO₂-emissions of fossil fuels and industry reached an all-time high of 37,4 gigaton. This year we are expected to reach a new all-time high. We pump 150 million tons of CO₂-equivalent into the atmosphere every day. That’s about 3 times the yearly CO₂-equivalent emissions of Portugal! Its surface area is 0,06% of Earth’s total

surface area. But the atmosphere has no boundaries and covers the globe, despite our tendencies to draw fence lines and defend them with force.

Global atmospheric CO₂-level is at 420 ppm, growing to 500 ppm in 2050. Preindustrial levels were at 280 ppm.

Do you think:

– *That CO₂-levels will drop in the skies above Portugal only, because they are reducing greenhouse gas emissions so greatly?*

– *Portugal will be exempt from sea level rise, because they have the most renewables technology deployed?*

– *The Earth's energy imbalance will take Portugal's green, lean, mean renewables machine into consideration, and magically lower itself only for the sake of their particular achievement?*

– *Global ocean acidity and sea level rise will suddenly start to decline only at the shores of Portugal, because it is head of the climate change mitigation class?*

– *Portugal will not be hit with prolonged droughts, devastating heat waves, massive forest fires, extreme downpours and destructive floodings, because they managed to install the most solar panels, windmills, heat pumps, EV's, batteries and carbon capture facilities?*

I thought not. These small victories are only distracting us from the overarching issue: overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat (see comment section). Currently we don't have a globally coordinated, consolidated or consorted effort to mitigate the consequences of overshoot. Singing Kumbaya My Lord around the campfire

over Portugal's achievements is the definition of false hope. It's like celebrating the existence of a speck of water on a hot plate.

Chapter 3

About climate stupidity

3.1

SM848

Computing to the rescue!

I saw a post from someone working in the ICT consulting industry, an environment I am most familiar with, after working there for more than a decade, referring to an article about latest developments that ended with the following sentence:

“Good stuff [...] on the future of computing and the massive investment opportunity it presents.”

This was my response:

“Really? It’s that single sentence that tells it all. In those 14 words our shortsightedness, ignorance and sheer stupidity is embedded. Apparently the ‘future of computing’ is ‘good stuff’ and creates a ‘massive opportunity to invest’. Look at the sheer number of assumptions in that statement.

It assumes:

- *Computing has a future and is a force of good.*
- *Because it is good we should all massively invest.*

First, we have to determine what is ‘good’. It is a subjective connotation. What is good for the one, might be bad for the other. And fair enough, ‘computing’ has brought us a lot of good in terms of the advancement of science, of society at large and the overall (so, not f~~o~~r all) prosperity and wellbeing it provided by growing our global economy. And sure, investing capital in something that is perceived good will fire up the global stock markets and make us greedy and rich (for which you have to assume that getting rich is a good thing that we all must aspire to).

So, apparently, if you read these 14 words correctly, it is the right way to move forward, the right thing to do.

Are we really this obtuse?”

3.2

SM852

‘Amazing. Every word you just said was wrong’

Somebody responded to my post about an article in *The Guardian*:

<https://lnkd.in/efQ2VSGN> [“Global sea surface temperatures are in uncharted territories”]

He wrote:

“This is so true. We are in unprecedented territory and everyone should be incredibly worried. No one - absolutely NO ONE - knows what this means or exactly how it’s being caused ... but we can all agree it is unprecedented”. [sic]

This was my response:

“Thanks for sharing. But I’m afraid I’m going to have to correct you there.

‘No one - absolutely NO ONE - knows what this means or exactly how it’s being caused’.

To quote Luke Skywalker in Star Wars — The Last Jedi (2017): *‘Amazing. Every word you just said was wrong’.*

We know exactly how it's being caused and we know exactly what this means. It's been caused by 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. We've been exceeding the carrying capacity of our living environment for over 70 years now. Planet Earth Says No.

Over the past half century, we have produced zillions of books, reports, analysis and conferences on the environment, biodiversity and climate. We know everything there is to know about our existential predicament and we have analyzed and discussed it until we were blue in the face. The problem is that we have not acted and are not acting now on the available knowledge and information. We're simply too slow to respond to accelerated global warming. And when we are too slow in an escalating environment, we lose. The price we have to pay is suprasystemic collapse.

Stay sharp and frosty, people! It's only just beginning.”

3.3

SM864

Wishful thinking and a lot of hogwash

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

“Global solar capacity is growing exponentially”.

This was my response:

“To all you techno-optimists that keep spreading this news: I believe you. I trust your data. I think it’s great. Marvelous. But it is not doing anything! You’ve been at it for over two decades now and you keep screaming from the roof tops that we’re doing just great with the deployment of renewables technology.

- *“Solar and wind are on the rise!”*
- *“Solid state battery technology is right around the corner!”*
- *“Carbon capture is coming!”*
- *“EV sales is off the charts!”*
- *“Renewables technology is coming to save us! Praise be!”*

That’s great. Bring it on, I say. Can’t wait. But all this time the 365-day running mean of the global surface temperature, the global atmospheric CO₂-level and the Earth’s energy imbalance have kept on rising and are now accelerating out of control. Something just doesn’t add up here. If you guys are right, all is going to be swell and dandy soon, we just have to hang on a little bit longer. But how

long? When? When is the lean, mean, green renewables machine kicking in to make these global warming KPI's go down? That is what I like to know.

And you guys are the techno-optimists, you need to answer these questions. The burden of proof is on you. Because all the time you are telling that the Renewables Revolution is coming, the extreme weather and climate disasters keep washing over the planet in increasing frequency and intensity.

The global warming KPI's are off the charts. The jetstream is meandering and accelerating. The oceans are overheating, acidifying and deoxygenating. Global ocean currents are slowing down and destabilizing. These are the Main Management and Control Systems of our planet. The size and scale on which they operate is simply unimaginable, it's huge! And they don't have an on/off switch, or a reset button, or an edit/undo function.

I keep asking the techno-optimism community to explain to me why all this technology is doing diddly squat to bring the global warming KPI's down and why our suprasystem is shaking out of control instead.

This is what I get:

- *“You just have to wait and see”.*
- *“There's always a lag effect”.*
- *“We just need more time to speed things up”.*
- *“It's not that simple”.*
- *“We need to work more closely together on a global scale to really make a difference”.*
- *“It takes time to kick in”.*
- *“We need to crank it up another notch before you'll see it happen!”*

But those are not explanations; that sounds more like wishful thinking and a lot of hogwash to me. I repeat: the burden of proof lies with the techno-optimists. Bring it on, answer the question, I say. When is the Great Rescue going to start?

Thanks.”

3.4

SM872

Just answer the bloody question!

“Techno-optimists aren’t bad people; they are just hopelessly misguided”.

Is that a bad thing to say? Perhaps not. But I just would like them to answer a simple question. Because techno-optimists measure success solely by the (accelerated) increase of renewables technology: more solar panels, windmills, EV’s, batteries, heat pumps, carbon capture facilities – you name it. But that’s not the way we should measure progress and success as long as the global warming KPI’s keep going up in acceleration mode.

Average surface temperatures, atmospheric CO₂-level, Earth’s energy imbalance, ocean acidification and sea level rise: they are all getting worse at every turn. Something doesn’t add up here. My question to the techno-optimists is simple: if the deployment of renewables technology is progressing so greatly, why aren’t global warming KPI’s improving? Why can’t we see it in those numbers?

I once rattled the cage of a techno-optimist when I interrupted his endless appraisal and promotion of renewables technology, showing graphs that went up and up. I suddenly shouted: ‘Eureka!! I’ve found it!’ ‘What? What have you found?’, he uttered. ‘The causal relationship between renewables technology and accelerated global warming!’, I answered grinningly. ‘Yeah, sure. But what then? What?!’ was the somewhat irritated response. I guess he had a gut feeling

about what was coming his way. 'It's simple,' I said. 'The more renewables technology we deploy, the hotter it gets! Perhaps we should stop doing that.'

He was not amused, to say the least. But maybe, after all, there's some truth to it. What do you think?

3.5

SM879

Stupid things to say in times of trouble

Just a random header of an article that came floating by:

“UK’s net zero economy grew 9% in 2023, report finds”.

I wonder how many people will recognize that the title of this article is a contradiction in terms. It’s like saying:

“Global economy picking up the pace again with a growth rate of 1,7%” and “Jetstream accelerating out of control, oceans overheating and acidifying, global ocean currents destabilizing” in one sentence.

Or:

“The neoliberal, capitalistic, consumeristic, growth-economic free market is in full swing to take on the deployment of renewables technology to fix the ecological deterioration of our living environment’.

Or:

“World population expected to grow to 10 billion people in 2050, but overall economic growth expected to remain stable all the way”.

Or:

“We need to organize international conferences in oil, gas and coal producing countries, gathering more than 80.000 participants from all over the world, including fossil fuels advocates and lobbyists, to solve our existential predicament and make this world a better place”.

Or:

“Starting a couple of wars that mostly resemble the trench war atrocities of WWI and the abhorrent genocide of WWII is a useful way to solve our differences and strive for global unification”.

Or:

“Don't Look Up!”

3.6

SM882

When possibilities go from wishful thinking to delusional ranting

Somebody sent me a nice, pretty, hopeful picture of our future. I have attached it to the original post; it is the first image that looks like a mountain. I originates from the *International Energy Agency* or IEA:

“The IEA was set up in the wake of the 1973-1974 oil crisis to help industrialized countries respond to major oil shocks. Since then, the IEA’s work has expanded to cover overall energy security, economic development and clean energy.”

What a heartwarming gesture! It almost brought tears to my eyes. Because it was brought to me as a message of hope and comfort. ‘Don’t despair, Bart’, the messenger seemed to say. ‘It’s not too late, we can still fix this. We just need to work together more closely and speed things up a bit’.

This was my response:

“Thanks for your message of comfort. And indeed, yes, I have seen these kinds of depictions before, in all forms and shapes since 1975. Yours is just the one, but I have put them all together in a row, like a short movie. Imagine, if you will, that this mountain has its base points firmly anchored in the years 1900 and 2050 respectively. First the mountain was nicely symmetrical, with its

central axis in the year 1975, precisely halfway the baseline. The descending slope had the same angle as the ascending slope. Not too steep to handle at all. Just a comfortable and controllable hike downwards.

Then the whole mountain started to shift to the right. In 1990 it reached its final position to be able to descend the downward slope without fear of life and limb. But it could only just be done. The current slope, the picture you see before you, is far too steep to descend. We will slide right off to crash for sure. Gravity sucks! But we just don't want to see that. We think we can still manage, that we have the ability to descend that almost vertical downfall, that we possess the skills and the time to do that without wrecking anything.

Now keep moving the mountain to the right please, while the base points remain firmly attached. What do you see happening? Right! The mountain becomes completely asymmetrical, like the Precipice of Doom. That's how we are currently planning our future: thinking we can still survive by falling into the abyss."

3.7

SM884

If all else fails, blame the immigrants

I saw a post referring to an article about the possibilities, advantages, disadvantages and risks of geo-engineering, the artificial manipulation of the atmosphere to cool down the planet. It ended with the following sentence:

"The big picture result is that we believe we can control the surface temperature of the Earth [with geo-engineering], but other components of the climate system will not be so fast to respond."

This was my response:

“Good read. Confrontational. Disturbing even. Still, geo-engineering will probably go forward as planned, because it’s the easy way to go. What intrigues me is that we don’t have a *President of the United Nations of the World* and no *Global Executive Committee and Steering Board* to decide on these issues. If I wanted to be cynical and sarcastic about it, I would predict that the decision-making process will not take 28 Conferences of Parties covering the better part of 30 years and it will not produce end reports with only creative semantics and word joggling.

I would predict that a sham ‘coalition of countries’ would be construed, much as that coalition that drove us into the Desert Storm War, led by the five largest fossil fuel loving nations, deciding what’s best for the world and sending their armada of high altitude aircraft into the stratosphere to dump massive

amounts of aerosols to keep everything going as usual. And I would predict that, if it turned out unsuccessful and we ran into a runaway climate and hothouse Earth, or if it had devastating side effects causing global calamity, adding insult to injury, they would just blame the immigrants.

But hey, I would say that only if I wanted to be cynical and sarcastic.”

3.8

SM891

Stand-up comedy is great, but it doesn't change a thing

I love the ranting and raving of stand-up comedians and show hosts like Jon Stewart, Stephen Colbert, Seth Meyers, Jimmy Fallon, John Oliver, Bill Maher and Jimmy Kimmel as they are ranting and raving about the ignorance, shortsightedness and sheer stupidity of humankind in general and of the Divided States of America in particular. I've been following them ever since American politics took a turn for the worst when that Would Be King came down the escalator, June 16th, 2015.

If I want to catch up on American life in general and US politics in particular, I just tune in on my favorite stand-up comedians and let them rattle the cage. Within half an hour or so I'm not only fully informed, but I get a good laugh out of it too. They are the flea in the fur, the thorn in the flesh of every American public figure — political or otherwise — that suffered a drastic decline of IQ points as a result of the anti-science movement in general and the climate change denialism movement in particular.

But there's something ominous about all this. Because as we have a good laugh together with the comedians, nod our heads and agree with them, nothing changes! Stand-up comedy doesn't save us from idiots and morons, it only emphasizes their dangerous presence. And that's why we need to understand

how the anti-science movement in general and the climate change denialism movement in particular operates.

Climate change deniers have a far easier job than climate scientists. Deniers don't have to prove that climate science is wrong, nor do they have to prove they their own assertions are right. The only thing they have to do is sow doubt. Once the seeds of doubt are sown, the toxic weeds will overgrow truth and reality in a heartbeat. Currently both movements are winning the debate. We must start fighting them on their tactics. They hate that.

3.9

SM910

Ignorance truly is bliss

Whatsyadoin' right now? Sure, you're reading this post. You haven't scrolled on yet so I'm glad. Welcome to my world! But what were you doing before you picked up your smartphone to check out what's new on LinkedIn? And what are you planning to do right after?

– If you are employed and you just took a break, you better snap to it. Your boss is watching and you're not hired to play with your smartphone all day.

– If you are a freelancer, you'd better get cracking too. Turnover doesn't create itself and you have to convince your customers that they need you instead of the other way around.

– If you are a company owner you have other things to worry about than social media feeds. Turnover, results, growth, retention, competition – you have a lot of mouths to feed and the company doesn't run itself.

– If you are the CEO of a multinational, it's about time to prepare your boardroom meeting and report on mergers, acquisitions and shareholder value.

– If you are a billionaire you have to make sure you keep the level of materialism and greed on par so you are not outclassed by your peers.

– If you are a world leader, president or politician, you have to keep growing the country, the economy and your power status.

Now, what do these people have in common? Independent of the level of income, wealth or status? Well, they all have bills to pay. They all have to take

care of their small social groups of family, household, friends, colleagues and teammates. They all have to sustain their lifestyle according to class. They all have to eat and drink to survive. But there's this thing in the air, this irritating, ominous dark cloud that casts its shadow over everything. It was possible to ignore it for a long time, but now it's starting to penetrate the news, our conversations and heck, if you look outside the window, it's right there:

HUMAN CAUSED CLIMATE CHANGE AND ACCELERATING GLOBAL WARMING

It's a bloody nuisance and no matter how much you're trying to look away, it won't budge. It threatens to spoil everything. The economy, your pension, the stock market, shareholders value, your power, the future — DAMN! Why won't it just GO AWAY? It won't.

And it will get a whole lot worse before it never gets better again. Human civilization as we know it today will collapse and that will affect us all. When push comes to shove societal collapse is indifferent about class or status. So why don't we do something about it already? Why don't we pull our resources together and fix this damned nuisance? We can't.

When push comes to shove, we only know how to take care of ourselves and our small social groups. We have to pay the bills, the mortgage, our debts — we have to protect what's our own, keep our lives going. That's why we'll be so obsessed maintaining our lifestyles that we won't see it coming. That's why we will keep on doing what we're doing until the very last minute.

Ignorance truly is bliss.

3.10

SM921

Just post it on the internet

Somebody reacted to the worrisome news about human-caused climate change and accelerated global warming with a long list of earlier predictions about the end of the world that never came true. It was one major ‘move-along-now-nothing-to-see-here’ argument’. I responded by congratulating him, that he was successfully bamboozled by the climate change denialism movement and that I couldn’t help him anymore. He then repeated his arguments, pointing to specific past predictions about ice ages never happening, to which I responded with:

‘QED. I rest my case’.

He then liked that comment, thinking that I proved his case, but I was proving mine. When I explained that to him, his reply was:

“Whatever”

He actually wrote that. To which I responded in kind:

“That’s highly scientific indeed. I’m impressed. Why don’t you publish a scientific paper on that, with the title: ‘Whatever’. In the abstract you can say that everybody’s entitled to an opinion, gut feelings are ok, you can just about say everything you want on social media and when someone comes up with

rational counter arguments, or evidence, you know, with actual facts and figures, there's one universal reply to all of them. You say: 'Whatever'.

Just like in the old days, in the school yard. You can also propose a new peer review strategy: 'Is not!' – 'Is too!' – 'Is not!' – 'Is too!' That's a perfectly good way to show your feelings and stay clear of any sort of rational argument or logical thinking. Fill your paper with conspiracy theories at will, starting with your list of earlier predictions on the end of the world. Separate each line, but don't mention any sources. Just add one conspiracy theory to each line. You can find lots of them on the internet.

You can close your paper with a few quotes:

- *'Scientists don't know everything' (anonymous)*
- *'Science is just another opinion' (anonymous)*
- *'Let's agree to disagree' (anonymous)*

Don't have your paper peer reviewed. Just post it on the internet."

PS I know this doesn't help. I know it won't free him from his echo chamber and it won't help him see things differently. But every once in a while, I just have to. It's like a perfect drug: it feels good to take a shot of irony, cynicism or sarcasm, but I never need more to get equal pleasure out of it. It's non-addictive to its core. And that's why I share it here with you. This guy has probably already blocked me for having the audacity to counter-point him. Because all of his friends think he's perfectly within his providence, stating 'The Real Truth'.

If it wasn't so serious we would all have a cold beer and a good laugh about it. Sadly, it is serious. The anti-science movement in general and the climate change denialism movement in particular are winning the debate. I find the level of ignorance, shortsightedness and sheer stupidity about climate change mindboggling. It's like we've lost the ability to just look outside the window. It's beyond disconcerting really."

3.11

SM925

Singing Kumbaya My Lord prematurely

Every once in a while, there is some ‘positive news’ about the achievement of a single country in improving its status quo on environmental pollution, biodiversity loss and climate change. The accompanying data is oftentimes, deliberately or not, depicted as absolute data, not referring to the bigger picture or any relation to it to global data.

“Look, we’ve reduced CO₂-emissions by X million tons and methane emissions by Y tons, our carbon capture facilities have removed Z tons of CO₂ from the atmosphere, we have installed A thousands of solar panels, B hundreds of windmills and sold C thousands of electrical vehicles! Look at us going. Yahoo!”

This time it was Germany crying an early victory and somebody wrote a passionate post about it, like we were already saved from damnation, starting the fire to sing *Kumbaya My Lord* and celebrate our victory with a stiff drink. This was my response:

“I understand why we want to celebrate national victories in our efforts to fight climate change. I really do. It provides hope and it should encourage others to step forward and do the same. However, before we start celebrating early victories and do the victory dance, we mustn’t lose sight of the bigger picture.

Germany's yearly CO₂-emissions are 0,6 gigaton. Europe's yearly CO₂-emissions are 2,5 gigaton. Global yearly CO₂-emissions are 37 gigaton. If Germany reduces its CO₂-emissions to 0 (zero) that's only 1,6% of yearly emissions. If all of Europe were to reduce its emissions to 0 (zero) that's only 6,8% of yearly emissions. In 2023 the CO₂-emission of fossil fuels and industry reached an all-time high of 37,4 gigaton. Every single day we add 150 million tons of CO₂-equivalent to the atmosphere.

Global average surface temperature, CO₂-level, energy imbalance, ocean acidity and sea levels rise — all of these global warming KPI's are going up in acceleration mode. We must STOP measuring our progress and success in fighting climate change by greenhouse gas emissions or by the deployment of renewables technology. Instead, we must START measuring our progress and success by global warming KPI's. Because they just keep going up.

3.12

SM936

Just do it!

Somebody wrote a hopeful post with solutions to our existential predicament. He recognized the mess we've made and proposed a way forward that boiled down to 'just fix everything'. For everything that was broken he suggested to 'just fix it'. At some point I suspected the author to be extremely cynical to the point of sarcasm, but he was dead serious.

"If the climate is broken', he said, 'We just need to fix it'. He kept going: 'If life on land and in the oceans is disappearing, we just need to bring it back'. And: 'If greenhouse gas emissions are too high, we need to reduce them'. And: 'If we consume too much, we just need to consume less'. You catch my drift; he just kept going, see the list below. I felt I had to do something without getting cynical or sarcastic myself. This was my response instead:

"Yes, sir. That's right, thanks. You are spot on saying that. It's all true. Let's snap to it!

Now, please, for the sake of argument, let's do a little thought experiment. Imagine you are the *President of the United Nations of The World*. You have a *Global Cabinet of Nation Leaders* (200 members) and you control the *Global Budget* for your *World Improvement Project*. You are just about to enter the boardroom to chair your first project meeting. All 200 nation leaders and their staff are waiting for you to speak.

This is the agreed action list from which you must handout tasks, timelines and budgets:

- 1 – Fix the climate.*
- 2 – Fix the biodiversity crisis.*
- 3 – Return life into the oceans.*
- 4 – Return life on land.*
- 5 – Reduce emissions.*
- 6 – Reduce pollution.*
- 7 – Change consumption patterns.*
- 8 – Reduce materials.*
- 9 – Reduce energy.*
- 10 – Reduce systemic laziness, single-use and burning of barely used materials.*

Each nation has prepared an overview of their cultural, social, economic, political and infrastructural vested interests that they want to take precedent over all the other countries. Here are my questions for you:

- 1 – How would you go about achieving your goals?*
- 2 – What would you do to motivate your project team?*
- 3 – How would you sidestep the vested interests of the 200 participating countries?*
- 4 – What kind of timeline do you propose?*
- 5 – How would you finance it?*
- 6 – What would you do to enforce penalties at non-compliance?*
- 7 – How would you mitigate the risks if your project failed?*

Go!” – Never heard from him again.

3.13

SM940

When we're missing the point completely

I reacted to a post in which an enthusiastic and passionate world improver said that we can easily solve all of our problems with the environment, biodiversity and climate...:

“...because we only have to fix the climate and the biodiversity crisis, return life into the oceans and on land, reduce emissions and pollution, change consumption patterns, reduce materials, energy and systemic laziness, single-use and burning of barely used materials.”

...and I responded by saying:

“Is that all? Wow. I wonder, what would you do if you were the President of The World and you had to snap to it and get it all done?”

He came back with a list of things he would do, but it all sounded just a tad too familiar to me. When I pointed out that we already thought of all those things, that we already know exactly what the problem is and what we need to do to fix it, including his list, but that we still didn't act, I asked him:

“Despite all of the books, analysis, reports, scientific papers and conferences we have produced over the past half century, we still don't have a globally coordinated, consolidated or consorted approach to mitigate the

consequences of overshoot (), to which environmental pollution, biodiversity loss and climate change are mere symptoms. Why is that?"*

Silence ensued. But whilst I was waiting for an answer, somebody popped up in the comment thread and presented the ultimate solution to life, the universe and everything (and no, it wasn't "42").

He wrote:

"Here's is a plan: listen and embrace transformation".

To which I responded:

"Hahaha. Yeah, that'll do it. I love your masterplan. Let's all rehearse the lyrics to 'Kumbaya My Lord' and start collecting tinder to make a big campfire to gather around. Can't wait. All jokes aside: you're missing my point. Advising people to 'listen and embrace transformation' doesn't help or change anything.

First of all: it can be perceived as presumptuous to the point of arrogance. Please allow me to explain. People rarely think bad things of themselves. We think we are good people. Even when our actions are objectively 'bad', we still think we are 'good'. 'Good' and 'bad' are subjective connotations. What is perceived 'good' for the one might be 'bad' for the other and vice versa. People don't think they don't 'listen' either. Most people think they're 'good listeners', whilst all they do is hear what's being said, but not listen to the message. People don't say they 'resist change', or 'reject transformation'. People say, 'what's in it for me?'

So, by saying that the grand solution to all of our problems is to ‘listen and embrace transformation’, you insult most of your audience. First you have to get them to admit that their subjective definitions of good and bad must be adjusted to objective definitions. We need science and the scientific method for that. But most of all we must drag people by their hair out of their echo chambers. That’s the really hard part these days.

So, I kindly ask you again: if we know exactly what we need to do to fix our existential problems, why don’t we do it already?”

Never heard from him again.

The Tough Choice: Collapse Resilience

Chapter 4

Science, truth and reality

4.1

SM850

Techno-optimism is blinding us

Someone posted a link to a video of yet another incorrigible techno-optimist preaching that we don't have to worry at all, and that, yes, it has gotten a bit out of hand with the environment, the biodiversity and especially the climate, but that it's not too late, that we can still do something to fix our existential predicament and that we can still fix everything with the deployment of renewables technology. Praise be!

The post ended with the sentence:

“What do you think? Is he going to make difference”

This was my response:

“No, he's not.

Watch the entire video first and then, please, bear with me, because I don't want to p*ss on anybody's parade. Or maybe, just a tad.

This is your classic incorrigible techno-optimist. He's practically jumping with glee and the argumentation that he is so passionately stuffing down our throats is heartwarming and tearjerking. I used to be like him. Back in 2015, right after I published my 5th hopeful book about the future of mankind. Heck, I even did a TEDx Youth Talk about it in Amsterdam back in the day:

<https://youtu.be/bpJiUcwXHDQ?si=9FXM-Gta4yrz6xRF>

But that's all gone now. Because it has nót gotten any better with the climate, it has gotten a hell of a lot worse. Global warming is now actually accelerating towards a 'runaway climate' leading to a 'Hothouse Earth'. That we have 'reduced' global warming from 4,0C to 2,7C is a fallacy. It's solely based on promises and pledges, but not on the actual progression of current events.

Look, these kinds of videos are lulling us into a false sense of safety and security. 'Don't worry, renewables technology deployment is going to safe us!'

It is not."

4.2

SM855

Just seven more years of pandemic

I authored an article about what we must finally do to start actually doing something about climate change. Not only did it specify the measures (‘reduce global greenhouse gas emissions’), but the author also quantified it by translating these measures into concrete percentages of emissions reduction each year. I was truly flabbergasted by the audacity of the article. “Wow!”, I thought, “Who would have known that it was so easy? We only have to reduce emissions. Of course! Why didn’t anyone think about that before? What were we doing all this time?”

And yes, there might have been some sarcasm in those thoughts. Just a tad.

This was my response:

“Oh, come on! We will NOT decrease global CO₂-emissions by 7% annually until 2030. Here’s why:

In 2020, the peak year of the pandemic, global CO₂-emissions of fossil fuels and industry were reduced by only 7%. But it wasn’t like we volunteered to reach that goal! Our hands were forced. We accepted it only with our teeth grinding and protested it vigorously all the way through. Within a year after the pandemic, we were back at previous emission levels and the year after we reached an all-time high of 37,5 gigaton of CO₂ (2022). In 2023 we surpassed that, reaching a new all-time high.

Do you see what I'm getting at here?

Everybody wanted back what they had lost! Every company, multinational and conglomerate wanted their lost revenue and lost profits back. In a hurry. We all wanted our individual freedoms back. The freedom to make money, grow, build, travel, party, buy stuff and live the consumerist life that was so ruthlessly taking away from us. In no time we were back at the old levels of greed and growth, earning and spending, buying and selling.

And now we think, somehow, that we will go for a 7% reduction for 7 years straight? Voluntarily, willingly and freely? All 8 billion of us, everywhere? Are we really this obtuse?"

4.3

SM858

There will be no COP34

I saw a post from ‘The Climate Reality Project’ saying:

“If the UN climate summit COP28 was the ‘fossil fuel’ COP, then COP29 will be the ‘finance COP.’” [sic]

This was my response:

“Here’s some more realities for you:

1 – The COP28 of 2023 was not the ‘fossil fuel COP’. It was the COP of creative semantics and word juggling.

2 – The COP29 of 2024 will not be the ‘finance COP’. It will be the COP of creative semantics and word juggling.

3 – The COP30 of 2025 will not be the ‘accountability COP’. It will be the COP of creative semantics and word juggling.

4 – The COP31 of 2026 will not be the ‘reap what you have sown’ COP. It will be the COP of creative semantics and word juggling.

5 – The COP32 of 2027 will not be held in December, because the intended venue will have been destroyed by a category 7 hurricane. COP32 will be moved to February of 2028, at a location somewhere in the Nordic region. It will be the COP of creative semantics and word juggling.

6 – The COP33 of 2028 will be cancelled as a conference on location, because half of the participating nations will be engaged in massive border crisis,

conflicts and wars due to mass migration of hundreds of millions of people and/or suffered economic breakdown as a result of extreme weather and climate disasters continuously wreaking havoc.

The COP33 will be held as a video conference instead. Its end report will produce creative semantics and word juggling.

7 – There will be no COP34.”

4.4

SM859

Thinking in segments is nót going to help us

Somebody wrote:

“If the 10% of the richest population whose CONSUMPTION makes them responsible for HALF of ALL anthropogenic CO2 emissions [...] would reduce their CONSUMPTION with 20-30% that would begin to make material impact on emission reductions.”

This was my response:

“That’s a BIG IF.

Yes, the 10% of the richest population create half of CO₂-emissions, but we keep talking about that group as though it is homogenous and coherent, like they belong together, as a family. They don’t.

That 10% equals 800 million people. These people might have their wealth and consumption pattern in common, but that’s it. Because they are fragmented across some 50 million small social groups of family, household, close friends and associates, scattered across the globe. Neither of these tens of millions of small social groups think they’re doing anything wrong. In fact, most of them

think they do good with their products and services, their philanthropy and public appearances.

But you know what? The other 90% is exactly the same!

Those 7,3 billion 'other people' are also fragmented, across half a billion (!) small social groups of family, household, close friends and associates. But they don't feel homogenous and coherent either. Let alone 'poor'. They are just an enormous collection of small social groups, biologically equal to the 'rich' groups. And all these small social groups are taking care of themselves first, before they take care of anything else.

'Income deciles' and '% of emissions' are meaningless when it comes to solving our big global problems. Because we don't have one Big Global Problem Owner, No President of the United Nations of the World. There are only hundreds and hundreds of millions of small, rich and poor groups of problem owners. And that's why we are nót fixing our existential predicament but move straight towards suprasystemic collapse instead.

Thinking in segments is nót going to help us."

4.5

SM861

Are you a techno-optimist? Do you also believe in fairy tales?

Recently, yet another book was published with a passionate plea for Almighty Technology as the brave knight in shining armor, who, accompanied by the fairy and her magic wand, takes on the battle against climate change and makes all problems disappear like snow before the sun (pun intended). When I responded by saying that ‘the time of the techno-optimists is over’, I received indignant and extremely strong reactions from, you guessed it, the techno-optimist community. How on earth did I get to think like that? Was I completely daft?

I replied that I thought that way, because:

— The current accelerated rollout of renewables technology apparently has no effect on the global rise of the three most important KPI’s of global warming: the 365-day running mean of global average surface temperature, the global atmospheric CO₂-level and the Earth’s energy imbalance.

— That these KPIs are only going up and are even accelerating.

— That the decrease in the cost of solar, wind and biomass energy, the development of steady state battery technology, the accelerated increase in sales of electric vehicles, the idea of carbon removal technology, the increased

sustainability of agriculture and livestock farming, the rapid multiplication of solar and wind farms, the embrace of veganism — I could go on and on — has no effect whatsoever on human-caused climate change and accelerated global warming.

To add insult to injury I also had the audacity to claim that it is precisely our technology that is causing the problems, making things worse at every turn.

“What? Why would you think that? That is preposterous!”

Well look, the danger of techno-optimism arises when we think that:

— All problems can be solved with technology, even when those problems are caused by technology.

— Bombarding a problem with technology always and automatically leads to fundamental improvement.

— We can endlessly add energy to a closed system and, if that system starts to protest violently, we can simply take the energy out again.

— We can just turn off the heating, acidification and deoxygenation of our oceans when we no longer like it.

— We can simply reset the meandering and accelerating jet stream when we no longer wish to endure the heat domes and arctic cold spells.

— We will be able to stabilize and redirect global ocean currents once they begin to catastrophically affect the weather and climate systems on the entire planet.

— Continuously exceeding the carrying capacity of our living environment can be simultaneously compensated by the acceleration of renewables technology deployment.

Techno-optimism is as dangerous as looking for that knight in shining armor or believing that magical wands exist. However, currently we just can't seem to escape its magic. If that goes on long enough, eventually no one will dare to speak up anymore. Usually that's right before everybody goes off a cliff.

4.6

SM869

Holding the techno-optimists to account (amendment)

Climate change is getting a tad out of hand, don't you think? But the techno-optimists don't believe so. They say: *“Salvation is coming, just you wait and see!”* Really? First, let's take a look at the techno-optimist's adage:

“Yes, we made a mess of things and sure, it's bad with the climate and all. But it's not too late, we can still fix this with renewables technology. We just need to work together and really speed things up”.

For decades the techno-optimists have been announcing the 'renewables tipping point'. That 'EV's are coming to save us', 'improved battery technology is around the corner', 'fossil fuels are on their way out', 'solar and wind pricing is dropping fast', 'carbon capture to the rescue!' and 'all will be swell and dandy soon!' But all this time the extreme weather and climate disasters kept wreaking havoc all over the planet, in increasing frequency and intensity. Something doesn't add up here. Because WHEN do they expect all these technological marvels to kick in and save us from damnation?

Now, how do you hold a techno-optimist to account? Well, we must look beyond the emissions of greenhouse gases as a result of burning fossil fuels and focus only on the ultimate consequences:

- 1 – *365-day running mean of the global average surface temperature anomaly in degrees Celsius*
- 2 – *Atmospheric CO₂-level in parts per million (ppm)*
- 3 – *The Earth's energy imbalance in Watts per square meter (W/m²)*
- 4 – *Global ocean acidity in potentia Hydrogenii (pH)*

These global warming KPI's are continuously measured and reported. Therefore, I thought, let's make it concrete and visible. Take a look at the first of 7 diagrams attached to this post. You can see 4 curves going up and 4 going down. They represent the global warming KPI's we are going to apply to monitor actual, real progress. As you can see, the upgoing curves aren't linear; they are accelerating. So, now we say:

'Dear techno-optimist,

If what you say is true, and salvation is near (praise be!), then this is what we want to see happening from now on:

1 – 365-day running mean global average surface temperature anomaly in degrees Celsius:

Current	1,5
2030	1,5
2035	1,4
2040	1,3
2050	0,9
2060	0,5
2070	0,2
2100	0,0C

2 – Atmospheric CO₂ level in ppm:

Current 420
2030 415
2035 400
2040 390
2050 355
2060 325
2070 310
2100 300 ppm

3 – Energy imbalance in W/m²:

Current 1,3
2030 1,2
2035 1,0
2040 0,8
2050 -0,1
2060 -0,8
2070 -0,9
2100 -1,0 W/m²

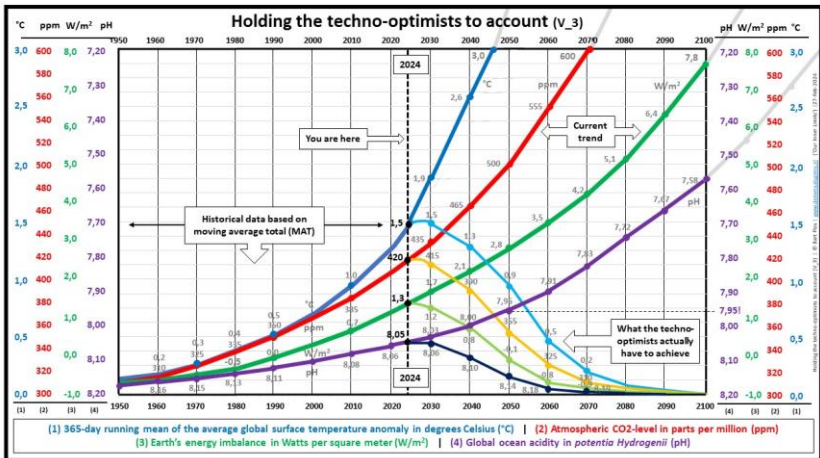
4 – Global ocean acidity in potentia Hydrogenii (pH)

Current 8,05
2030 8,04
2035 8,07
2040 8,10
2050 8,14

2060 8,18
 2070 8,19
 2100 8,20

Put your money where your mouth is and start delivering on these KPI's. Keep your promises! And if you think this is 'too soon, too fast, too unrealistic' or 'it doesn't work that way' – ok, fine. But then we ask you:

“When do you see these KPI's going down, allowing the lean green miracle machine to work its magic?”



4.7

SM870

LinkedIn's Almighty Algorithm be damned!

I received a DM from a concerned reader. It said:

“Hi Bart, I greatly appreciate your responding to my posts. Can I make a suggestion? When you put all your links down it's overwhelming. I think you would get more people clicking (and learning) on your links if you only chose one idea to focus on and gave a little more text as to what people will find when they click on the link. Does that make sense?” [sic]

This was my response:

“It does. And I do that too. But sometimes I provide the reader with a menu. I leave it up to them to pick and choose. It's never the one method that works best when posting on *LinkedIn*. I've authored over 850 posts in the past 15 months. They all are focused on one specific topic. Of course, I refer to other posts and links, but the reader has a choice there too. That's why I always put an 'enticing' title to my links. And it works too, because these posts get extra views every time I provide the menu. Extra clicks, extra comments, extra shares, extra reposts. It works to provide a menu!

Being 'overwhelmed' is a subjective connotation. You might feel overwhelmed, others might not. I believe in providing choices. Are you aware that no matter

how many posts you write, they all disappear in the endless timelines of our social media? To oblivion they go! I didn't want that to happen, so I've captured 800 of them in ten addenda to my 6th book.

So, I've authored another ten books of 30.000 to 40.000 words each, with all my posts structured together (see comment section). I do not write for the Almighty Algorithm of LinkedIn. *LinkedIn* hates me. *LinkedIn* wants to dictate me how to write, when to write and who for. It now even introduces an AI to 'help' author a post. How horrible! How insulting!

I do not worry about my readers getting 'overwhelmed' by my posts. They can read it or scroll on. If they are bothered with my style and frequency of writing, they can block me (and lots of people have, I'm sure), I don't care. I do not write to make people feel comfortable. I write because they have to wake up! We're accelerating towards the perfect storm and we don't have time to cherish our feelings. Our living environment doesn't. Our planet isn't. They are completely indifferent about our feelings.

So, to sum up:

- *Sometimes I chose a single topic, sometimes I provide a menu.*
- *Sometimes I chose to overwhelm, sometimes I chose to focus.*
- *More people click on my posts when I remember them that I posted them.*
- *I have captured 800 of my posts in 10 books, so people can read and remember them whenever they chose.*
- *I do not write to gather a flock. I write because I'm an author. And I write to, perhaps, inspire an individual to, maybe, think a little different about the world.*

Does that make sense?

Cheers

Bart Flos

PS Thanks for your concern. But you've got to shake it off. Be more provocative. *LinkedIn's Almighty Algorithm* be damned! Rattle some cages. Ruffle up some feathers. Don't worry about the 'overwhelming' of others."

4.8

SM871

How to rattle the cage of a techno-optimist

Needless to say, that most techno-optimists are not amused by my ‘attacks’ on their limitless enthusiasm for the acceleration of renewables technology deployment. More often than not I am simply misunderstood. I’m not against technology in general or renewables technology in particular. Bring it on, I say! I want them to be right and I want me to be wrong. Really, I do. But I also want them to deliver on their promises. I want to hold them to account by not praising them for the deployment of technology alone, but by asking critical follow-up questions.

I want to hear the techno-optimists explain when all that technology is going to bring down the global accelerating rise of average surface temperature, atmospheric CO₂-levels, Earth’s energy imbalance and ocean acidity. When are these global warming KPI’s going to plateau and subsequently decrease? It must be in their planning somewhere, you would think.

What I do get is derogatory snorts and a lot of cynicism and sarcasm. Like the other day, after I had responded to yet another hopeful story about the exponential rise of solar panel sales. I asked why the global warming KPI’s were not going down, but up instead. This is what I got:

“Your comment is like the driver of a supertanker throttling back the engines and then asking why he can’t feel the ship slowing down yet.” [sic]

It received a lot of likes and thumbs up. So, I responded in kind:

“It is difficult to detect irony, cynicism or sarcasm in a text comment if you don’t use emoticons, but I have a feeling there might be some sarcasm in there. So, I’d like to extend your metaphor: if the driver of a supertanker is throttling back the engines, WHEN is the ship going to slow down? Will it be in time to avoid a collision with an iceberg? And should he not also change course, full rudder?

Because he’s throttling back for over two decades now, but the supertanker is still picking up speed, now even accelerating forward. Does the driver know how to drive a supertanker at all? Is he pushing the right buttons or is he simply incapable of driving a huge, complex vessel in the first place?

Answer the questions, that’s all I ask”.

I know it’s futile and it won’t change his opinion, but it felt good to do and it feels good to share it with you here, for what it’s worth.

Stay sharp and frosty, folks, the Perfect Storm is coming!

4.9

SM877

The global plastics industry doesn't exist

Somebody wrote a disconcerting post about global plastics pollution and said:

“Plastic producers have contaminated every living human on earth. How do we hold them accountable?”

This was my response:

“Hold them accountable? Who do you mean? Who are they? Where are they? Where do they hide to do their devious deeds? ‘The Plastic Producers’ are an abstract entity. They do not exist as a coherent, homogeneous entity. There is no Super-Duper Plastics Industry CEO, no single entity to approach.

‘The Plastics Industry’ is fragmented across hundreds of thousands of small social groups of family, household, friends, colleagues and teammates, divided across 200 countries. From the workers at the assembly line to the factory director, from the administrative clerk to the business unit manager, from the helpdesk employee to the ICT director — all are dependent on the income and benefits they receive from their employer, ‘The Plastics Industry’.

All of them want to sustain and enhance their lifestyles. Make a little bit more money, buy some more stuff, go on Holidays a little bit further away. Holding ‘The Plastics Industry’ accountable would mean threatening the lifestyle of thousands of small social groups that just want to hold on to what they’ve got.”

PS I call that 'The Fragmentation Problem' and I explain it here:

<https://lnkd.in/e5hsvTSc>

4.10

SM881

The techno-optimists have some explaining to do

Somebody posted about the progress and success of renewables technology deployment in general and the global growth of solar power in particular. He seemed to imply that we needn't worry about the climate, that it's all going to be swell and dandy in the end.

This was my reaction:

“That’s great! Thanks for sharing. So, we’re all fine then? We don’t have to worry about climate change anymore because global solar additions could reach 520-655 GW in 2024? That sounds really impressive. Bring it on! Let the *Lean Mean Green Renewables Machine* set us free. Praise be!

Now, please, so you understand me, I’m all up with that. I also want the renewables revolution to kick in and solve all our existential problems. But something just doesn’t add up. The techno-optimists are at it for over two decades now, shouting from the rooftops that ‘clean energy is going to save us, Hallelujah!’ But when are these positive, developments going to bring the global warming KPI’s down?

Average global surface temperature, global atmospheric CO₂-level, the Earth’s energy imbalance, global ocean acidity and sea level rise: they are all getting

worse and accelerating off the charts. What the heck is going on here? I believe the techno-optimists have some explaining to do.”

4.11

SM887a

The Global Manufacturing and Transportation Sector doesn't exist

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

“Earth’s ‘vital signs’ worse than at any time in human history, scientists warn. Life on planet is in peril, say climate experts, as they call for a rapid and just transition to a sustainable future. By 2100, as many as 3 billion to 6 billion people may find themselves outside Earth’s livable regions...”

Here's the link:

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

I responded by saying that we should stop talking about the year 2100 altogether, as I explain in this post:

https://lnkd.in/e6zqV2_3 [‘We should stop talking about the year 2100 | On the difference between linear and accelerated decline’]

To which someone commented:

The Tough Choice: Collapse Resilience

“Yes, and what are we going to do about it? There is no point in keeping reporting about it without doing something concrete to stop further escalation! STOP manufacturing and transporting stuff we don’t need!” [sic]

To which I replied in kind:

“I understand the sentiment, I really do. And you are right, we must ‘stop’. But who are you talking to? Who are ‘we’? If ‘we’ is the entire human species, 8 billion of us, growing with 1% yearly to 10 billion in 2050, then what do you think would happen if manufacturing and transporting just ‘stopped’?”

There is no such thing as ‘manufacturing and transportation’ in the sense of one coherent, homogenous entity you can address and kindly ask to ‘stop’. There is no ‘Super-Duper Global CEO of Manufacturing and Transportation’ that can discuss your proposal in the ‘Global Manufacturing and Transportation Executive Board’ and come up with some kind of a clever plan to ‘stop’ everything.

The ‘Global Manufacturing and Transportation Sector’ consists of hundreds of millions of small social groups of family, household, friends, colleagues and teammates, all earning an income from that sector. They are fragmented across 200 countries and they are all dependent on their income to survive. Not one of them, from the factory worker to the company CEO, goes to work with the intent to ‘destroy the world with manufacturing and transportation’.”

PS I call that ‘The Fragmentation Problem’ and I explain it here: <https://lnkd.in/e5hsvTSc>

4.12

SM896

About climate optimism

Somebody referred to a Dutch article about climate optimism and its consequences for the perception of the actual state of the matter by the public at large, boiling down to the following statement:

“Climate optimism is necessary— but it needs to be factual”

This was my response:

“I quote, translated from the Dutch article:

“It’s great when climate optimism helps people fight for fundamental changes. But when it blinds them to the need for FAST (my emphasis) systemic change, it only perpetuates the destructive path we are currently on.”

Spot on! Finally, a well written, concise and succinct article about ‘climate optimism’ that I usually refer to as ‘techno-optimism’, because ‘climate change techno-optimism’ is just too long ;-)

All jokes aside: this is serious shit. We are ignoring, distracting and deceiving our way so suprasystemic collapse. It’s preposterous. The suprasystem is planet Earth with its dominant species Homo sapiens, of which 8 billion specimens are currently doing their utmost to make their own living environment uninhabitable. ‘Suprasystemic collapse’ is therefore the

catastrophic and cataclysmic crash, destruction, ruination and disintegration of human civilization as we know it today. Is that enough synonyms there for ya?

Do you feel the urgency now? If not, I would ask you to join me in a little science experiment:

<https://lnkd.in/e76jHRK9> ["This is why we don't believe human civilization can collapse (and why we don't understand accelerated growth)"]

Put on your lab coat and engage in some data extrapolation with me please. If that doesn't open your eyes to what's coming our way, I don't know what will."

4.13

SM898

When is that *Lean, Mean, Green* *Renewables Machine* finally going to work its magic?

Somebody referred to an article with the following title:

“Emissions reach record high despite growth in clean energy”.

This was my response:

“To all techno-optimists: why aren’t you delivering on your promises? At some point you would expect the deployment of renewables technology, which is praised as ‘accelerating’, ‘highly promising’, ‘moving forward’, ‘picking up speed’ and ‘delivering beyond expectations’, to start having some effect.

And I am not necessarily talking about CO₂-emissions. Underreporting of global emissions can run up to 15% on a yearly basis. So, we should regard that 37,2 gigaton of yearly CO₂-emissions (102 million tons of CO₂ every day!) as the ‘bare minimum’. So, what could we monitor instead? What would be a better way to measure our progress and success in fighting climate change?

Well, what about the main global warming KPI’s, such as global average surface temperature, global atmospheric CO₂-level, the Earth’s energy imbalance and global ocean acidity? Why don’t we use that to hold the techno-

optimists accountable for saying that renewables technology is going to save us/ just you wait and see/ praise be! They've been screaming that from the rooftops for the past two decades, but the global warming KPI's just kept going up in acceleration mode.

When is that *Lean, Mean, Green Renewables Machine* finally going to work its magic?"

PS See also my post:

— <https://lnkd.in/efXkyTz3>

[‘Holding the techno-optimists to account (amendment)’]

Global warming is now accelerating out of control. Our living environment has already entered a state of cascade failure, the precursor to suprasystemic. We no longer have the luxury to listen to the fairytales of techno-optimists or the lies of climate change deniers. We just don't seem to understand accelerated growth or decline. Once we pass the elbow of an exponential curve, we don't have time to issue IPCC reports every 6 or 7 years or send 100.000 people to climate conferences to agree on creative semantics and word joggling, or to listen to overconfident techno-optimists.

We have passed that point of no return already. What are we still talking about? Renewables technology clearly isn't doing anything! When will we come to our senses and acknowledge that we're simply too late to prevent our habitat from seeking a new equilibrium? And it doesn't care whether we will be part of it or not. It's completely indifferent about our feelings on the matter.

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

4.14

SM908

I have a question for you

Just imagine that you are back in school. It's not a difficult question, it only appears that way. Just stay with it, it's important.

– Given a closed system E to which an increasing quantity of gas X is added at a certain rate.

– Given T_0 (T zero) is the average temperature of system E being $0,0\text{C}$ on $D(1880)$, whereas C is the temperature in degrees Celsius and D is the base reference date.

Question:

– Given the following average temperature values for system E for T_1 , T_2 and T_3 , and given that the rate in which gas X is added to system E remains equal, what are the expected dates D for T_4 , T_5 and T_6 ?

$T_0 = 0,0\text{C}$ in $D(1880)$

$T_1 = 0,5\text{C}$ in $D(1980)$

$T_2 = 1,0\text{C}$ in $D(2010)$

$T_3 = 1,5\text{C}$ in $D(2024)$

$T_4 = 2,0\text{C}$ in $D(?)$

$T_5 = 2,5\text{C}$ in $D(?)$

$T_6 = 3,0\text{C}$ in $D(?)$

Please give your answer and substantiation in the comment section. Thanks.

Solution:

- *System E is planet Earth.*
- *Temperature value T is the 365-day running mean of the average global surface temperature anomaly.*
- *Gas X is the combination of excessive greenhouse gases (carbon dioxide, methane, nitrous oxide, fluoridated gases, water vapor).*

Based on the historic rate of temperature rise the dates for T4, T5 and T6 are:

T4 = 2,0C in D(2031-2035)

T5 = 2,5C in D(2036-2043)

T6 = 3,0C in D(2040-2051)

And yes, it took us 100 years to raise the global average surface temperature from 0,0C to 0,5C, just 30 years to go from 0,5C to 1,0C and only 14 years to go from 1,0C to 1,5C. In this tempo we will reach 3,0C of warming within 16 to 27 years. Do you believe it? And if not, why not? If the original conditions of the closed system remain unchanged, why wouldn't the heating curve follow the same acceleration?

Or asked differently: why would that heating curve flat out or even start to decline, when we keep pumping 100 million tons of CO₂ into the atmosphere every single day? And yes, I am asking *you*: why would it?

4.15

SM931

AI development is not stagnant or static

I saw yet another post and article from someone being skeptic about the achievement of AI as it stands today. That there were still obvious flaws in its output and that it didn't compete with human skills in any way, shape or form yet. You know, without looking back at the speed of development in the past half century.

This was my take on it:

“I've been saying it ever since the AI Revolution began: stop judging AI as it is today! AI doesn't develop linearly, but exponentially. But our brains can't process accelerated or exponential growth (or decline). We are 'programmed' by evolution and natural selection to regard our natural environment in a slow, moderate, linear fashion. When something follows an exponential path, we are either in it and can't see it (and get extinct) or we don't understand it in a practical sense.

Look at it this way: the universe is 13,7 billion years old. Planet Earth is 4,5 billion years old. Multi-cellular life started to develop 500 million years ago. Our last common ancestor lived 7 million years ago. Homo sapiens, that's us, emerged some 300.000 years ago.

— *10.000 years ago, we started the Agricultural Revolution.*

— *200 years ago, we started the Industrial Revolution.*

- *70 years ago, we started the Digital Revolution.*
- *35 years ago, we started the Internet Revolution.*
- *20 years ago, we started the smartphone and social media revolution.*
- *2 years ago, we started the AI Revolution.*

Would you care to extrapolate? Do you see where I'm getting at here? Downgrading AI in its current state is like staying put in front of an upcoming freight train, thinking 'it didn't seem to go that fast when it was far away'.

PS If you want to learn more about my stance on AI, just pick up any of the 11 addenda to my 6th book (to be downloaded as printable pdf-books from my website FOR FREE) and go to the chapter "The Almighty Algorithm'."

4.16

SM935

On the concept of entropy

The accelerated deployment of renewables technology creates a false sense of direction, purpose and urgency. It is false hope. We think that if we throw a lot of solar panels, windmills, heat pumps, EV's and carbon capture facilities at the problem, the global warming KPI's will start to recover and we can safely, freely and happily grow to 10 billion people in 2050, consuming happily ever after. It is the definition of false hope and it lulls us into this strange, almost hypnotized state of anticipated happiness, wellbeing and prosperity.

But the global warming KPI's are *nó*t recovering. Instead, they are accelerating out of control. The deployment of renewables technology over the past decades is having no effect whatsoever on the deteriorating state of the environment, biodiversity and climate. It's getting worse at every turn. Why is that?

It all makes a lot more sense when we study the principles of entropy (*). Entropy is a measure of degree of disorder in a system. It is the general trend of the universe towards death and disorder. If you look around you right now, you think you see order and structure (**). But where you think you see order and structure; you are being deceived. Because everything you see that is man-made or human-caused, has increased the level of entropy or disarray elsewhere.

Look at the wedding ring you might be wearing. Say it is made of 14kt gold and it weighs 6 grams. Depending on the grade of the ore it is excavated from, it

has required a couple of tons of that ore. It must be processed, transported, gold must be molded. That requires heat up to 1.000 degrees Celsius. With every step of the way that ring gets more structure and order, but elsewhere the entropy is increased by orders of magnitude. Everything we do increases the level of entropy. This ultimately leads to the system's deterioration and collapse.

The order we see around us is temporary at best. It deceives us. Even now, with the entire human species in accelerated decline, we keep on trying to create order in one place by creating a magnitude of disorder in another. This is just about the worse thing we can do under the given circumstances, but we are blinded by ignorance, shortsightedness and stupidity, laced with greed, arrogance and hubris. It will be our downfall for sure.

(*) On the concept of entropy: <https://en.wikipedia.org/wiki/Entropy>

(**) If you are in Ukraine or Gaza, or any other conflict, crisis or war zone on this planet, you are exempt from this thought experiment.

PS This post was inspired by an article I read on the concept of entropy, but by the time I wanted to retrieve it, my timeline had already refreshed and it had disappeared into the catacombs of *LinkedIn*. So, I apologize to the original author and thank him for the inspiration it gave me.

4.17

SM938

There's an easy way to hold techno-optimists to account

The way techno-optimists measure progress and success is by the amount of solar panels, windmills, heat pumps, EV's, batteries and carbon capture facilities produced and installed. However, that is NOT the way progress and success should be measured.

When techno-optimists tell us about their neat gadgets and how the amounts of energy produced by renewables technology will soon overtake the amount of energy produced by fossil fuels, its actually about the latter, not about the first. Techno-optimists aren't doing this because they love renewables. If fossil fuels were beneficial to the environment, they would be fully focused on 'technifying' that.

So, how DO we measure progress and success? Good and fair question. Check this out:

— Are you a techno-optimist? Oh yeah? Do you also still believe in fairy tales?

https://lnkd.in/ed_FGiqD

— If you are a techno-optimist, I would like to rattle your cage

<https://lnkd.in/ejfCnERc>

– Holding the techno-optimists to account (amendment)

<https://lnkd.in/efXkyTz3>

– We should stop talking about the year 2100 | On the difference between linear and accelerated decline'

https://lnkd.in/e6zqV2_3

– How long can we keep accelerating until it blows?

See also:

– What's the difference between collapse and extinction?

<https://lnkd.in/eG7AvHuc>

– Why irony, cynicism and sarcasm won't change a thing

<https://lnkd.in/e3TOE8PJ>

– Ignorance truly is bliss

https://lnkd.in/eDt9PR_q

– I have a question for you

<https://lnkd.in/eJb87J2d>

— This is far more severe, even far more sinister than we think.

<https://lnkd.in/edQaaSNP>

— Are we the proverbial frogs in a pan of heating water?

<https://lnkd.in/eH5hQAQP>

— What happens when you pull the plug of a bathtub?

<https://lnkd.in/eDanUbPW>

— Start using global warming KPI's to measure progress and success

<https://lnkd.in/eB6A8c2e>

— What if we're just not in it for the long haul?

<https://lnkd.in/dtBH4C4p>

4.18

SM941

About the difference between air temperature and wet bulb temperature

As if the extreme temperature rise across the globe as a result of accelerated global warming isn't bad enough, we are also faced with a consequence that adds insult to injury: a phenomenon known as wet bulb temperature, air humidity in combination with air temperature.

<https://lnkd.in/eR-QAgPV> [Wikipedia: Wet Bulb Temperature]

We lower our body temperature by evaporating water from our skin. When air humidity approaches 100% we can't cool down anymore and our internal temperature will rise to the point of organ failure. Let me make this very clear: nobody can survive a wet bulb temperature of 55C (131F) which is the equivalent of an air temperature of 32C (90F) with an air humidity of 100%.

Age, physical condition, stamina, climate or altitude adaptation, they don't matter. If you get caught in wet bulb temperatures exceeding 32C (90F), the only remedy is cooling off your body. Airconditioning, wet towels, anything that quickly lower the body temperature. Shadows and ventilators don't help. Depending on the severity of the wet bulb conditions anybody can die within hours. Your body will just give up and shut down.

The global Southeast Region will suffer from wet bulb heatwaves first. It will kill millions in the years to come and it won't let up.

Chapter 5

The climate collision

5.1

SM853

I want you to be right and I want me to be wrong

Somebody referred to an article about things getting really out of hand with the environment, biodiversity and climate. “It is becoming a real problem”, he commented, “and it is clearly accelerating beyond our control. But we keep on talking about it, analyzing it, defining it, without actually doing something it. It’s like we’re bound to a chair, watching it all fall apart, completely aware, but unable to wrestle free from our shackles to fight or flee from the problem”.

This was my response:

“I think you are right. Spot on in fact. Nice analogy. This is not the first time somebody’s authored a post, article or book about our existential predicament. In fact, we have produced a zillion books, analysis, reports, articles and conferences about the environment, biodiversity and climate.

But none of them have changed the accelerated global rise of the 365-day running mean of global surface temperature anomaly, the atmospheric CO₂-level and the Earth's energy imbalance. They are still going up in acceleration mode. At some point we must hold the techno-optimists, theorists, philosophers, even the climate scientists to account and ask them, please, when do you think these global warming KPI's will start to go down? Currently nothing is working. In fact, it's getting worse at every turn and the renewables technology miracle is clearly not happening. It's not. It's like specks on a hot plate.

Look, I want you to be right and I want me to be wrong. Really, I do. I want to see that change: bring it on already! But the jetstream is meandering, the oceans are overheating, acidifying and deoxygenating and the ocean currents are destabilizing. And we have no on/off switch, no reset button, no edit/undo function.”

5.2

SM857

Why we don't get the message, even if it is spelled out to us

I saw a post referring to an article that ended with the following ominous statement:

“The situation is dire and the precautionary principle calls for rapid, comprehensive and effective action to reduce the damage and to improve the situation [...], where needed in combination with a Climate Emergency Declaration, as discussed at the Climate Emergency Declaration group.”

This is the article: <https://arctic-news.blogspot.com/2024/01/seafloor-methane-tipping-point-crossed-in-2024.html>

This was my response:

“Wow! ‘The situation is dire’. What does that mean exactly?”

Dire (adjective)

— *Extremely serious or urgent.*

Synonyms for ‘dire’ are: *Acute, critical, desperate, drastic, extreme, terrible, dreadful, appalling, frightful, awful, horrible.*

It that were applicable to us personally, we would be in dire straits (pun intended). If something like that was happening to us, our family, our loved ones, and to our immediate environment, our home, street, neighborhood – we would immediately snap into gear. We would fight it, reverse it, remedy it and try to restore the previous equilibrium. We wouldn't stop until we were back in the safe zone. We would restore our future back to the favorable, promising, bright, benign, hopeful and golden state it was in before (and yes, those are 5 antonyms for dire).

But when you read this article, predicting that dire future for us, not in a million years, or thousands or hundreds of years from now, but within the next few years already, which is the equivalent of the here and now, we need to cross the following (cognitive) barriers:

1 – We need to free up the time to actually read the article with care and attention.

2 – We need to understand what it says, not in terms of semantics – it's not a scientific paper which are often times almost impossible to read – but in terms of the application to our personal lives.

3 – We need to be able to read and understand the graphs, which have nice colors, but there might as well be blood dripping out of them.

4 – We need to acknowledge that this is not some distant phenomenon, some inexplicable event in a strange country far, far away, but something acute, current and actual, for all of us, everywhere.

5 – We must find some meaning to it that applies to our personal lives, to our daily chores and worries, to our present-day responsibilities and obligations.

6 – We have to assess whether some action is required from us, that there is some time we can do about the disproportionate rise of the surface temperature in the Arctic region, which can potentially release methane

hydrate deposits that act as natural nuclear bombs and can destroy entire coastal regions.

7— And then we have to do something to try to fix it. To work together to stop this from happening. To find some way to turn the tide and prevent the dire consequences of our collective behavior as a species.

Have you scrolled on yet?”

5.3

SM868

‘No, we are not exaggerating and yes, it’s that bad’

That’s what I would say if I was participating in a climate change protest rally. And to add insult to injury, I would add:

“And no, we can’t fix this anymore, we’ve waited too long. We’ve had our chance and blew it. As of the spring of 2023, our living environment has entered a state of cascade failure, the precursor to suprasystemic collapse. We’ve been exceeding the carrying capacity of our habitat for over 70 years now, a process known to scientists as overshoot or overconsumption.

Planet Earth Says No!

Our planet is forced by us, by our collective behavior as a species, to seek a new equilibrium. With force. It is completely indifferent about our feelings on the matter. This generation will witness the beginning of the end, our children will live on the edge of hell and our grandchildren will inherit a world that is devoid of prosperity and wellbeing”.

I’m not sure whether it would be prudent necessarily to say all that, right there on the street, to innocent bystanders, smack to their faces. But it is what a confrontalist would do. The confrontalist holds position 6 on the scale of 7

positions between climate change denialism and doomerism. Do you want to know where you stand? Check this out:

https://lnkd.in/eDrcK_WS

[“Where do you stand on the scale between climate change denialism and doomerism?”]

See also my seven links to anti-science and climate change denialism:

We need to understand how the anti-science movement in general and the climate change denialism movement in particular operates. Climate change deniers have a far easier job than climate scientists. Deniers don't have to prove that climate science is wrong, nor do they have to prove their own assertions are right. The only thing they have to do is sow doubt.

Once the seeds of doubt are sown, the toxic weeds will overgrow truth and reality in a heartbeat. Currently both movements are winning the debate. We must start fighting them on their tactics. They hate that.

5.4

SM874

Linear growth or decline doesn't exist

Somebody wrote a post about climate change and ended with a question:

“The question has to be: what is the most likely temperature outcome of our behavior, 2°C or even 3°C , and HOW FAST are we going to reach these thresholds?”

This was my response:

“Funny you should ask. Because we know how fast we are going to reach these thresholds, based on historic progress of global surface temperatures.

See the post I wrote about it: <https://lnkd.in/epsWk6S> [‘How long can we keep accelerating until it blows?’]

My post is not only meant to make us aware, but to scare the bejesus out of us as well. Because it is going way faster than we think (and that might just be the understatement of the millennium). Just see what happens when historical data is simply dragged into the future. And observe the difference between a straight line and an accelerating one.

We have all the data we need; we just have to extrapolate. We need to abandon the idea, the shortsighted concept of linear growth/ decline. It doesn't exist within natural systems. And we, the human species and its habitat, we are a

natural system, adhering to natural laws, including the laws of systems collapse. We, the human species, are in a process of accelerated decline towards suprasystemic collapse. And what are we doing? We're still talking about it. We're still wondering what to do.

It's quite disconcerting really."

5.5

SM883

When in debate about climate change, is smashing somebody’s skull a good idea?

I was in discourse with a guy on *LinkedIn*, talking about the unprecedented heating of our oceans, which really baffles (and scares) our scientists to the core. When a huge mass of water heats up — 71% of the Earth’s surface is water — all kinds of scientific principles and natural laws come to pass. Like thermodynamics (enthalpy, entropy), physics, chemistry, math, meteorology and climatology. It’s serious shit.

Now, I’m not a scientist myself but I love science. I adhere to the scientific method and support the scientific community, fighting against the shortsightedness, ignorance and sheer stupidity that goes rampant on the social media platforms today. At some point my counterpart said something to the effect of:

“People should get educated before they speak. And for education you first go to school plus university to get the basics.”

This was my response:

“Hahahaha. Wouldn’t that be the day. Look, I hear you. I’m with you. And I sympathize. But I have seen people with ‘school plus university’ say and do stuff that kinda negates the effectiveness and efficiency of our education

system. Truly, I find it amazing that just the slightest bit of indoctrination by our social media platforms downgrades the average IQ with tens of points, stimulating people to say and belief stuff that boggles the mind.

Just the other day, I spoke to two random guys in a pub, talking about stuff that goes about in the world. After I explained some facts to them like they were eight years old, the one guy said, after a big sigh and looking away, 'Well, scientists don't know everything'. To which the other guy replied, as though he was programmed to do so, 'Yeah, science is just another opinion'.

I immediately threw my beer to the ground, grabbed both guys by the hair on the back of their heads and pounded their faces to the wall simultaneously — bystanders screaming in panic and disgust — until their skulls cracked open and, apart from the blood squirting around, nothing came out but some spoiled grey fluids.

Oh no, that was in my head... I'm sorry. No, I wouldn't do that. I'm not a violent type. Not at all actually. Instead, I finished my beer and calmly walked away.

We're só fucked."

5.6

SM885

This little research project is meant to scare the bejesus out of you

I recently posted about a specific graph depicting the ‘365-day running mean of the average global surface temperature anomaly’. You may want to read that one first: <https://lnkd.in/epswWK6S> [‘How long can we keep accelerating until it blows?’]

Look at the first of 7 images that I added to this post. That’s the graph I’m talking about and at first glance we’re not alarmed by it at all. It’s just a graph showing the rise of average global surface temperature over time.

‘What else is new?’

The authors have tried to help us get just a tad more concerned by highlighting each 0,25C of temperature rise with the dates it occurred. Still, I believe that won’t knock us off our feet any time soon. It’s just abstract data, even when it is depicted as a curve in time.

‘Sure, it’s going up; so what?’

Now, forget about all the basic knowledge that you have to have to interpret such graphs, such as, for instance, what the heck is a ‘global surface temperature anomaly’, and let’s focus on the core issue instead. And this time,

you are going to do some simple extrapolation, if I may ask you kindly. So, put on your lab coat and join in.

First: what would be a ‘normal’ temperature in this context? We have to go back to preindustrial levels and the answer is 0,0C (C stands for degrees Celsius). That is our reference value.

I’m going to ask you to complete a row of temperature value's based on historical data. I have put the time interval between brackets:

0,0C 1880 (base line)

0,5C 1980 (100 years)

1,0C 2010 (30 years)

1,5C 2024 (14 years)

So, it took 100 years to raise the global average surface temperature from 0,0C to 0,5C, 30 years to go from 0,5C to 1,0C and only 14 years to go from 1,0C to 1,5C. That should already scare the bejesus out of you (or maybe invoke a strong ‘Geez!’), but you are part of this little research project now. So, I’m going to ask you to extrapolate the historic data above, based on a ‘business as usual’ scenario.

Would you be so kind to complete the years:

0,0C 1880

0,5C 1980

1,0C 2010

1,5C 2024

2,0C 20....

2,5C 20....

3,0C 20....

I believe it to be best to do it for yourself and see it for yourself.

Thanks.

5.7

SM890b

‘What the heck is going on here?’

Climate scientists are increasingly concerned about the acceleration of global warming. It’s not only that we are already confronted with extreme weather and climate disasters that were originally predicted for 2050 and beyond, but there are examples of acceleration, such as the warming of the global ocean surface temperature, which leaves the scientific community flabbergasted. You can almost hear them think ‘What the heck is going here?’ and that is not necessarily a good thing.

I’ll put it to you more bluntly: this is far more severe, even sinister than we are led to believe. It is important to realize that we are too late to stop it from happening. That ship has sailed. We have no control (never had) over the jetstream meandering and accelerating, the oceans acidifying and deoxygenating or the global ocean currents slowing down and destabilizing. These are Earth’s Main Management and Control Systems. There is no on/off switch, no reset button, no edit/undo function.

Last year March our living environment entered a state of cascade failure, the prelude to suprasystemic collapse. The current heating trend will not just miraculously switch back to a cooling trend, no matter how much we ‘wish it’ or how much renewables technology we throw at it. In fact, suprasystemic collapse as a result of overshoot (*) is fast, violent, ruthless, utterly destructive and completely indifferent to our feelings on the matter.

Current events are just the start of the acceleration phase of collapse. It will take only a few more years (not decades or centuries) to run completely out of control. We have been warned. Multiple times. But we didn't act. And now we have to pay the price.

(* Overshoot or overconsumption: when a species exceeds the carrying capacity of its habitat. See Appendix IV.

5.8

SM899

Letter to a fan

Planet Earth, March 5th, 2024,

Dear Innocent Earth Dweller,

Thank you for your compliment on my fight against the anti-science movement in general and the climate change denialism movement in particular. I really appreciate it. I'm afraid though, that my efforts are just a drop in a bucket. Because currently they are winning the debate. I find it mind-boggling that there is so much utter nonsense going around about global warming, despite the evidence piling up all around us. We just have to look outside our windows to see. By now, I have lost faith in the ability of humankind to survive. Just take a look at what's happening all around the globe.

– *Half of the USA is hypnotized by an autocratic, moronic dictator and demagogue that will have his coup d'état in November, whether he is legitimately chosen or not.*

– *Half of the world population is taking to the ballot box this year, of which half, that is 2 billion people, will vote for a(n) (extreme) right political movement that categorically deny that climate change even exists.*

– *We have started a couple of wars that still resemble the trench war atrocities of WWI and the reprehensible genocide of WWII.*

– *Despite all of our knowledge and experience with it, we still develop nuclear weaponry and threaten to use it too. It's insane.*

And on top of all of that we are facing a common enemy of which we deny its existence, despite it having the power to decimate us to less than 20% of the current population, with a good chance of total extinction. I guess we weren't meant for the long haul. If you look at the entire human species, all 8 billion of us, then whatever attributes of altruism, empathy, love, tolerance and connection we might experience on the individual, local and regional level, it gets lost in translation on the global level. It just doesn't scale up.

Human-caused climate change and accelerated global warming will render all of the above pointless. Because we really fucked it up this time, in real time. This one we won't be able to recover from. This time it's truly global. So, yeah, I get upset when I hear people say, 'scientists don't know everything' or 'science is just another opinion'. It's hard to explain how utterly ignorant and stupid that is. The social media platforms and news outlets now run solely on the desire to draw views, likes, thumbs ups, comments and reposts. AI and deep fakes are distorting our view of reality. The rational discourse is dying, because we don't like to be contradicted. We just deny counter evidence, get frustrated and angry and walk away, block the opposition out, flee back to our peers to get reinforced.

All that is left for me is to advocate collapse awareness, resilience and acceptance. And we're going to need it. It's all going to unfold in the next few years already. Thanks again for your support. I'll keep at it for as long as I can. In the meanwhile, stay strong, sharp and frosty. The Perfect Storm is coming.

Cheers,
Bart Flos

5.9

SM905

What's on your signpost?

I wrote a post about my contemplations about the future of mankind, you know, with human-caused climate change and accelerated global warming and all. That, perhaps, we're just not cut out to make it past this century. You can read it here: <https://lnkd.in/dtBHzC4p> [‘What if we're just not in it for the long haul?']

That prompted the following response:

“We're not, no species is. As you said, 99,99% of all species that ever lived has gone extinct. There's no reason whatsoever to believe humans are exception of the rule. Especially not given the way we wreck the planet. IT IS OK TO GO EXTINCT” [sic]

So, I reacted in kind:

“There's your slogan! I can see these kinds of signs in a fossil fuels protest rally:

‘IT'S OK TO GO EXTINCT!'

‘EMBRACE YOUR OWN COLLAPSE!'

‘DON'T AFRAID OF THE DARK — IT WILL ALL BE OVER SOON!'

‘COME AND CRASH WITH ME!’

‘STOP RESISTING COLLAPSE — IT’S COMING!’

**‘99,99% OF SPECIES WENT EXTINCT BEFORE US — WHAT ARE WE
WAITING FOR? LET’S JOIN THEM!’**

‘WHERE DID YÓU THINK THIS WAS GOING? DON’T BE NAIVE!’

‘ARE YOU COLLAPSE AWARE ALREADY? JOIN US NOW!’

**‘IT’S NOT TOO LATE TO CHERISH YOUR LOVED ONES — IT’LL BE
MUCH HARDER ÁFTER THE COLLAPSE!’**

**‘IF YOU DON’T LIKE THE WORD “COLLAPSE”, DO WHAT THE
FRENCH DO AND CALL IT L’EFFONDREMENT’**

‘WHY WORRY ABOUT YOUR PENSION? WORRY ABOUT COLLAPSE!’

**‘EXTINCTION DOESN’T HURT; IT TAKES A LONG TIME — BUT IT IS
THE SAME FOR EVERYBODY!’**

**‘JUST RELAX — EXTINCTION MEANS “NO FUTURE” SO NO WORRIES,
MATE’**

**‘THE GOOD THING ABOUT COLLAPSE IS THAT OTHER ANIMALS WILL
BE ABLE TO PROSPER AGAIN!’**

**‘OH, STOP CRYING OVER SPILLED MILK — WE’VE HAD OUR
CHANCE!’**

‘DO YOU HAVE EXISTENTIAL ANXIETY? I DO TOO — SO WHAT?’

‘COME ALONG AND COLLAPSE WITH ME!’

‘EXTINCTION IS NOT A CHOICE — YOU’RE JUST IN IT FOR THE RIDE!’

**‘WHAT DID YÓU THINK WAS GOING TO HAPPEN? SHANGRI LA? LA-
DI-DA FOREVER?’**

We’d better batten down the hatches and buckle up, folks. The Perfect Storm is coming.”

5.10

SM911

I told you so

If you can spare a few minutes, read this and I quote from a post that was floating by:

– *The speed with which the climate is now changing is faster than (almost) all scientists thought possible.*

– *There is now zero prospect of holding the average temperature increase this century to below 1.5°C; even 2°C is beginning to slip out of reach. The vast majority of climate scientists know this, but rarely if ever give voice to this critically important reality.*

– *At the same time, the vast majority of people still haven't a clue about what's going on – and what this means for them and everything they hold dear.*

– *The current backlash against existing (already wholly inadequate) climate measures is also accelerating – and will cause considerable political damage in 2024. Those driving this backlash represent the same old climate denial that has been so damaging over so many years.*

– *The science-based institutions on which we depend to address this crisis have comprehensively failed us. The Intergovernmental Panel on Climate Change is incapable of telling the whole truth about accelerating climate change; the Conference of the Parties (under the UN Framework Convention on Climate Change) has been co-opted by the fossil fuel lobby to the point of total corruption.*

— *By not calling out these incontrovertible realities, mainstream scientists are at risk of becoming the new climate deniers.* [sic] [end quote] [Thank you *LinkedIn* Almighty Algorithm for bringing me to Ian Dunlop to bring this to my attention]

This is an extract from the early part of Jonathon Porritt's analysis as posted by David Spratt. You can find Porritt's piece here: <https://lnkd.in/eCDfQ2fQ> ['Mainstream Climate Science: The New Denialism?']

And this is Spratt's piece: <https://lnkd.in/exXWhbpg> ['Is scientific reticence (*) the new climate denialism?']

Two rhetorical questions are asked as one and the answer is: YES! Mainstream climate science is silent, uncommunicative and restrained and therefore to be considered the new climate science denialism. But you can't blame them for it. They're just too careful, introvert, nuanced, meticulous and slow. By nature. I don't want to say it but I'm gonna: I told you so. And: we are so fucked.

(*) Reticence is the quality or state of being silent, incommunicative in speech or restrained in expression, presentation or appearance.

5.11

SM920

Like we've got all the time in the world

Somebody wrote about environmental pollution, biodiversity loss and climate change and concluded with the following sentence:

“Let's rethink our strategies to ensure they lead to genuine sustainability and justice for all.”

This was my response:

“I just can't believe we're this obtuse. We have produced a zillion books, reports, analysis, articles and scientific papers about the environment, biodiversity and climate. We have discussed it until we were blue in the face and then came up with some more. And we're still talking about it like we've got all the time in the world. Like we can just denounce one theory and quietly and calmly replace it with something else. We have organized 28 COP's in as many years, with tens of thousands of participants producing nothing more than creative semantics and fancy word joggling that has something in it for everybody to ignore or abuse.

Like we've got all the time in the world.

Half of the world's population is taking to the ballot box this year of which half, that is 2 billion people, are going to vote for some (extreme) right political movement that vehemently denies climate change even exists. The timelines

of our news outlets and social media platforms are inundated with news about economic growth and decline, gossip about movie stars and politicians, cooking tips, fashion sales and gardening tools.

Like we've got all the time in the world.

We start a couple of wars that mostly resemble the atrocities of the trench wars of WWI and the abhorrent genocide of WWII. On top of that we still develop nuclear weaponry and blatantly threaten to use it as well. Meanwhile we keep adding 150 million tons of CO₂-equivalent to the atmosphere every single day.

Like we've got all the time in the world.”

5.12

SM942

We should change our narrative real soon if we want to keep ahead of the weather

I saw a post that stated that ‘immediate climate action is required’ and that ‘climate change is here already, escalating beyond predictions’, that ‘we are not prepared’, that ‘we have no plan’ and ‘we don’t know how bad it’s going to get’ and that ‘we have zero time to waste, because EVERYTHING AND EVERYONE is at risk’. I guess the ‘all-caps-approach’ was to emphasize the urgency of the message.

This was my response:

“Right. It might be useful to look at the actual message of your post in terms of its effectiveness. What are you guys saying actually? That ‘immediate action is required’? Is that the message? Really? Is that the news? Ok. But haven’t we been shouting that from the rooftops for over half a century now? With all due respect, maybe you guys should change your narrative. Perhaps you guys should switch to explaining:

- *WHY climate change is here, escalating beyond predictions.*
- *WHY we’re not prepared, have no plan, don’t know how bad it’s going to get and have zero time to waste.*
- *WHY we’ve let it come this far so that now EVERYTHING AND EVERYONE is at risk.*

That should be your message: the explanation on how we got into this mess in the first place. First explain why we let it come this far and why it's getting out of hand. Then explain why we seem unable to stop it from spiraling down, despite the vast knowledge we have acquired on the subject. If people understand more about the WHY we don't have to bother as much with the WHAT anymore.

I just want to prevent you guys from writing the next post in ALL CAPS and still not explaining WHY we're spiraling down like never before in the history of mankind. And I apologize for being blunt. But we really must change our narrative here. At some point we run out of CAPS and out of colors beyond FIRY DARK ORANGE or BLOODY HOT RED in our climate graphs.

What do you think?"

The Tough Choice: Collapse Resilience

Chapter 6

The collapse

6.1

SM846b

What do 850 posts look like when you put them all in books?

Since the publication of my 6th book *De mens als grens* ('Our Inner Limits') in December 2022, I have authored just about 850 posts here on LinkedIn, a steady 2 posts every single day. At an average of 400 words per post, that's about 25.000 words each month, or 800 words every single day for 15 months straight. 'But why, for Peet's sake?' you might ask. It's like that question they ask mountaineers:

'Why do you climb that mountain?' – 'Because it's there'.

I write because I'm a writer; I have to. I have to write about stuff that interests me, fascinates me, moves me and aggravates me. I have to transform my thoughts, contemplations, trials and tribulations into written speech, because I have to.

But I didn't want my work to get lost in the endless timelines of LinkedIn — no matter how many 'impressions' a post might gather, no matter how gracious the Almighty Algorithm might get, your posts always disappear in The Great Swipe-up — so I have captured them in 10 addenda; 10 supplements to my book: 4 in Dutch and 4 in English, and 2 BONUS addenda, also in English.

Each addendum has the size of an average management book (30.000 to 40.000 words) and can be downloaded FOR FREE from my website, in printable pdf-format. You can find the direct links below. So, now I can lay my head to rest in the comfortable feeling that 'I told you so!' ;-)

From now on I can say: 'Do you want to know what I think about environmental pollution, biodiversity loss and climate change? Do you want to know my feelings about our existential predicament? Read my books!'

To conclude: I wouldn't want you to get overwhelmed, so don't read all of my posts in one setting. Each one only takes a few minutes to read, so choose wisely, pause, put the book away for a while, think about it, gather your own thoughts and feelings, and then read some more. For all of you following me here on LinkedIn, for all of you reading my posts as they kept coming, I thank you for your continuous support; it's highly appreciated.

— In Dutch:

Addendum I — Het begin van het einde: onwetendheid

<https://lnkd.in/eqqd3irs>

Addendum II — De frontale confrontatie: klimaatverandering

<https://lnkd.in/evck9YfD>

Addendum III – Het grote probleem: overconsumptie

<https://lnkd.in/eUjij9dN>

Addendum IV – Het laatste taboe: ineenstorting

<https://lnkd.in/eKurymx6>

– In English:

Addendum V – The beginning of the end: ignorance

https://lnkd.in/e_e7ZsqW

Addendum VI – The frontal confrontation: climate change

<https://lnkd.in/eDVNu62V>

Addendum VII – The big problem: overconsumption

<https://lnkd.in/e5xzMzDM>

Addendum VIII – The final taboo: collapse

<https://lnkd.in/exOZQP36>

– BONUS addenda in English:

BONUS - Addendum IX — The next step: collapse awareness

https://lnkd.in/eZY_xfSv

BONUS - Addendum X — The last resort: collapse acceptance

<https://lnkd.in/egWnXkyc>

Stay sharp and frosty, people! It's only just beginning.

6.2

SM866

Even ocean acidification is accelerating

Somebody posted about ocean acidification. He wrote:

“[A global ocean pH of] 7.95 is the limit. We are at 8.05. The oceans are acidifying at an alarming speed. At 7.95 there is no longer enough free carbonate ions in ocean water for crustaceans to form shells (plankton, crabs, shrimps, mussels, fish scales) or aquatic plants to uptake CO₂ from water to grow (turn CO₂ to cellulose, starch, alginate). This would mean we lose all life in the oceans and ~70% of global oxygen production capacity. What will we breathe after that?”

I hope we haven't lost the capacity to extrapolate data. The decline in global ocean pH in the diagram appears to be linear, but it is actually declining in accelerated fashion. Now, if we extend the X- and Y-axis of this graph and continue the current accelerated trajectory, this happens:

2025: 8,05 pH
2028: 8,04
2032: 8,03
2035: 8,02
2039: 8,01
2041: 8,00
2043: 7,99
2046: 7,98

2048: 7,97

2051: 7,96

2053: 7,95 (!)

(Please note: the lower the pH, the higher the acidity).

That's right! In this medium variant of possible accelerated scenarios, we lose all life in the oceans and ~70% of global oxygen production capacity around 2053. That's only 3 decades away!

But for the blissfully ignorant reader this might suggest that we still have time to fix it. That all is swell and dandy until the 31st of December 2065 at 23:59:59 hrs and then, when the clock strikes 00:00:00 hrs, WHAM—BAM!! — suddenly all the oxygen is sucked out of the air and we all die within a few agonizing and terrifying minutes, watching each other grabbing our throats in sheer panic, with protruding eyes, desperately clinging on to random objects until the lights go out.

That's not how suprasystemic collapse works. It's not a meteorite strike or a nuclear device going off. Our civilization will not collapse in a second. It will take 3 billion agonizing, deteriorating, aggravating seconds to tear down human civilization as we know it today. And we are right on track.

6.3

SM875

How long can we keep accelerating out of control until it blows?

It won't come as a surprise to you that I'm deeply worried about where things are going with the environment, biodiversity and climate. Some will find my view on mankind's future dire, bleak, pessimistic, gloomy and depressing. That's because it is.

Take a look at the first of 7 images I attached. It's a graph of the 365-day running mean of the global average surface temperature. Each value is the average temperature of the year before. As you can see, we are already at 1,5C of warming, the limit that was agreed in the Paris Climate Agreement of 2015. But looking at this graph will not invoke any feelings of concern with you, I'm sure. But it should. It is one of the most alarming graphs you'll ever see. Please allow me to drag you down with me.

First look at the time intervals between each temperature raise of 0,25C. Do you see? They are getting shorter. Now look at the second image. As you can see, I have been creative with pencil, eraser and ruler, as I have been before (see the other images). Look at the line I've drawn through the fluctuating values, as a 'moving average total' of the 365-day running mean. That is clearly not a straight line, it is an accelerating curve. Then I literally went outside the box of the graph and extrapolated the data, based on the trajectory of the accelerating curve.

I created 5 future scenarios: A through E. That is what happens when you extend an accelerating curve: it skyrockets! We are skyrocketing upwards, all of us. This probably doesn't scare you either and I understand that. We're all riding this accelerating curve, but we can't see or feel it, because we are the curve, we are the acceleration. I would like to urge you to study my extrapolation carefully. Look which temperature values correspond with what year. Do you see? Are you scared yet?

Perhaps the best way to get your anxiety juices flowing, is to look at the table I inserted in the down right corner. This is what happens when the middle scenario C runs its course. Look at the years we are going to breach each increase in temperature value and look at the time intervals:

0,0C 1880 – reference value

0,5C 1980 (100 years)

1,0C 2010 (30 years)

1,5C 2024 – current value

2,0C 2032 (22 years)

3,0C 2046 (14 years)

4,0C 2055 (9 years)

5,0C 2060 (5 years)

6,0C 2062 (2 years)

7,0C 2062 (0 years)

It took 100 years to raise the temperature from 0,0C to 0,5C, but only 30 years from 0,5C to 1,0C and just 14 years from 1,0C to 1,5C!

Please note: at 3C of warming all climate change tipping points are flipped, at 4C we will create hell on Earth, 5C is the extinction threshold and at 6C of

warming, organic life on land and in the oceans can no longer be maintained. But here's the really scary thing. It looks like we're on track for scenario E! Take a look at the years I've added to each 0,25C temperature rise in that curve. Do you feel it now? Do you see?

6.4

SM886a

This is why we don't believe human civilization can collapse

Our brains are unfit to understand accelerated growth or decline. That is not some imperfection or limitation brought unto us by our modern lifestyle. Evolution and natural selection never needed it to evolve our species. We simply spent millions and millions of years in a natural environment that had no need for such concepts.

Perhaps we have learned to understand the abstract meaning of accelerated growth or decline, but we will never be able to incorporate it into our daily lives, because when it doesn't hurt us, we will ignore it and when it does hurt us, it's too late to do something about it. I've posted about this before, but this is the simplified version. Please look at this row of temperatures and years:

0,0C 1880

0,5C 1980

1,0C 2010

1,5C 2024

2,0C 20....

2,5C 20....

3,0C 20....

3,5C 20....

4,0C 20....

The first four are real historical numbers, namely the 365-day running mean of the average global surface temperature anomaly and the year each milestone in degrees Celsius was reached. Each value is the average temperature of the year before (see attached). And yes, if you look closely, the numbers are staggering. It took us 100 years to raise the global average surface temperature from 0,0C to 0,5C, just 30 years to go from 0,5C to 1,0C and only 14 years to go from 1,0C to 1,5C.

Those are the facts of the case, and they are undisputed. Now, please be honest and extrapolate the data, based on a 'business as usual' scenario. What will the following five dates be, based on the progression since 1880? Do you see? Can you believe this is actually happening to us right now, in real time? Why not?

Please note, as you allow this to enter your processing systems:

- *We can't turn an accelerated curve into a flatline just because we don't believe what we see.*
- *Accelerated global warming won't turn into accelerated global cooling because we don't believe this is happening to us.*

But it is, right now, in real time. This is as real as it gets. This is where it is going. And the global average surface temperature will keep on skyrocketing until something blows. Do you see? Do you believe it? Why not?

6.5

SM888

The Perfect Storm is coming

“We’d better batten down the hatches and buckle up, folks. The Perfect Storm is coming”.

On more than one occasion I have used that phrase as the end of a post. Obviously, it is meant to emphasize what I wrote and to give warning. It’s my way of saying “Do something with the information I just gave you. Educate yourself. Become collapse aware and more resilient to it. Accept that we are too late to fix it”.

Of course, with ‘it’ I refer to human-caused climate change and accelerated global warming. And yes, we’ve had our chance and blew it. The Perfect Storm IS coming. Sounds pretty ominous, doesn’t it? The Perfect Storm. What the heck is that? Besides that, it’s the name of a movie from 2000 with George Clooney, the Cambridge Dictionary defines the perfect storm as ‘an extremely bad situation in which many bad things happen at the same time’.

I love that definition! It’s simple, elegant and it uses the adjective ‘bad’ twice. Synonyms for ‘bad’ are unpleasant, disagreeable, unwelcome and unfortunate. And that’s where I have to step in. Because there’s a reason why I write the Perfect Storm with capitals. ‘Bad’ doesn’t cover it. Not by far.

Perhaps a quote from the brilliant ranting and ravings of Darin Hitchings (look him up, this guy is overflowing with facts and figures about are

existential predicament and he knows what he's talking about) will most aptly describe what I mean with the Perfect Storm of Perfect Storms.

(Just stay with it, because this is what happens when you're overflowing with knowledge and information and you just have to share).

“So long story short we're on track to cross a critical threshold where the ocean's pH falls from 8.10 to 7.95 between now and 2040, at which point all coral and all the shells of all mollusks dissolve... we rip the bottom out of the marine food chain... the SML fails... and it's off to hell in a handbasket we go, by way of Venus. And obviously all fossil fuel emissions, all forest fires, all ocean pollution, all fighting on the ocean seas, all large scale military actions, every tire that's eroded down to microplastics, every pound of meat we eat, every flight we take, every drop of petroleum based sunscreen we wear in the ocean (kills coral for 100 m in every direction...), every pound of sewage dumped, every Fukushima event, every oil slick, every jet ski galivanting excursion, every sport fishing boat ride, every cruise ship, every deep sea mining operation, every bacterial bloom from a gallon of spoiled /extra/contaminated milk (the bacteria that eat the milk consume all the oxygen in the nearby water), everything we do to destabilize the AMOC current which is the world's oxygen conveyor belt to the bottom of the Atlantic, every pound of coal we burn whose residual dust lands on ice and turns it one shade blacker, and last of all but greatest of all, every baby we have (or house pet we keep) are all just hastening this process of destruction along... greasing the tracks on our highway to hell, with the residues of our former lives!”

There you go: the Perfect Storm served to you in a silver platter.

6.6

SM889

Need help with population decline? Suprasystemic collapse will do it for free!

Somebody wrote a post that contained the following sentence:

“But while we gradually reduce our global and regional populations naturally [...]”.

This was my response:

“I believe that to be incorrect. Current global population growth is at 1% yearly, bringing us from the current 8 billion people to 10 billion in 2050. 40% of our food is wasted before, during and after production. The average global energy consumption per capita is 2.960 calories, whilst 2.000 calories is enough. Globally there are more people overweight (obese) than underweight. What’s wróng with us?”

We’ll be adding 80 million people to the human equation every year for another three decades or so, after which global population growth will plateau and (very) slowly start to decline. All these new individuals will want to get rich (if they can), 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 more. That is simply unsustainable.

Now, if we were somehow able to revert the 1% yearly population growth into a 1% yearly decline, we would reach 6 billion people in 2050 (a good start) and 1,3 billion people by the end of the next century (the perfect number). But controlled population decline is taboo. It would require limiting the freedom of humans to procreate across all 200 countries of the world.

But! If we don't reduce our numbers voluntarily, suprasystemic collapse will do it to us for free. Problem solved."

6.7

SM890a

What if we're just not in it for the long haul?

I've been writing a lot about environmental pollution, biodiversity loss and especially climate change. On many occasions I have emphasized the fact that these global problems, although huge in and of themselves, are mere symptoms of overshoot or overconsumption. Overshoot occurs when a species exceeds the carrying capacity of its habitat. As a matter of natural law, it is always met with collapse, independent of species or plant and independent of the size of the habitat.

When it pertains to the human species, I call it 'suprasystemic collapse', whereas the suprasystem is planet Earth with 8 billion fine specimens of *Homo sapiens* roaming its surface, wreaking havoc wherever (and whenever) they go. But that is not the subject of my post. That was just the intro. Bear with me please.

Because I wonder, what if we're just not in it for the long haul? What if we're not suited to last? What if the collapse of our civilization is just one in a row of countless others that went before us? 99,99% of all species have gone extinct in the history of this planet and still we think it can't happen to us. What makes us think that we're so different? Arrogance? Hubris? Ignorance? Shortsightedness? Stupidity?

That's right!

Think of it like this. We rarely think ahead much further than that party next week or the summer holiday next year. If we have offspring we might consider their future for a while, but thinking about the future of our grandchildren becomes even more difficult. Cognitively speaking we are not suited to consider the distant future or past. With 80 or 90 years, our lifetimes are absurdly short compared to geological timelines of millions and billions of years. Our planet is 4,5 billion years old; the universe is 13,7 billion years old. But even thinking about, for instance, the start of the Agricultural Revolution 10.000 years ago, is an abstract exercise.

We live in the here and now and we don't care much about other people and strange cultures far, far away, let alone way in the future. We might be interested, when we study history or anthropology, but when push comes to shove, we care only about ourselves and our children in the here and now. Perhaps our numbers are up, precisely because we don't care about future generations beyond our own children. We don't care about people we don't know and can't see. We can't see or talk to future generations either, hundreds or thousands of years from now. There's no connection.

So, perhaps we're just not in it for the long haul. Perhaps we were never meant to really understand our distant history and future, and the connection between them. And if we don't care about future generations as much as we care about our own, we will go extinct. Currently we are even expediting our own demise. For that reason, I strongly believe we no longer deserve the designation *Homo sapiens*, 'the wise, modern, thinking man'. We truly are *Homo infantilicus*.

6.8

SM894

What is collapse resilience?

For those who follow me here on *LinkedIn* it will come as no surprise that I advocate collapse awareness, resilience and acceptance. Our living environment has already entered a state of cascade failure, the precursor to suprasystemic collapse. We have passed the point of no return and it's going to get a whole lot worse before it doesn't get better again. My stance on the matter prompted the following comment:

“Awareness and acceptance I understand. What do you mean by resilience?”

My response:

“With ‘resilience’ (or ‘toughness’) I mean we must increase our ability to withstand or recover quickly from the multitude of disasters that suprasystemic collapse is going to send our way. We won't be able to withstand or recover from the collapse itself, but we must become tough, brave, hard and defiant to its consequences.

For example: how do we increase the resilience of our children, who are going to take the brunt of the collapse? Their glued to their smartphones, tablets, laptops and earplugs all the time and are completely spoiled and pampered by us. Well, just take them on a hike through the woods. Start with 10 km and a backpack of 10 kg. And of course, no smartphones allowed! Learn them to

make a shelter, make fire without matches, find water, roots, fruit, herbs and vegetables.

Becoming resilient, however, is not meant for us to become hunter-gatherers again voluntarily. We're all going to be forced to at some point, but only a few will be able to. No, it is meant to avoid panic, to avoid that we we're all going to cry out in panic and be all surprised about our societies crumbling before our eyes. It is meant to avoid that we're all going to nag and wine and be miserable that our luxuries, our privileges, our prosperity and wellbeing is taking away from us so rudely. It is meant to avoid that we're just going to roll over and die.

Do you think that I'm exaggerating here, that I'm fearmongering? That I am a doomer, spreading panic just for the sake of it? Well, yeah. I want you to panic! (thank you Greta Thunberg). Take Mexico City for instance. Right now, as we speak, [March 2024] it has run out of water. There are 22 million citizens living there, packed on top of one and other. How do you provide 1,5 billion liters of water (400 million gallons) to them every day?

You don't. You can't.

Just close your eyes and think what would happen if you and your family were cut off from water. Just imagine how much water you use every day. In the Netherlands it's 130 liters (34 gallons) per capita per day. Well, it's happening to Mexico City right now. What do you think will happen as a result? Quiet contemplation? Constructive collaboration? It's happening right now, in real time. We would all be clever to increase our collapse awareness, resilience and acceptance, at least mentally. And we'd better batten down the hatches and buckle up. Because we have been forewarned: the Perfect Storm is coming.”

6.9

SM904

When one is in accelerated decline, one must outpace the acceleration

I saw a post referring to an honest article about the (impossibilities of carbon capture, the removal of CO₂ from the air. It was honest, because it showed the true numbers in terms of the global effort required to remove any of the 1,500 gigatons of CO₂ already added to the atmosphere and the 100 million tons of CO₂ we keep adding on a daily basis.

This was my response:

“Good read. Spot on. To sum up:

- *It’s impossible.*
- *It’s a pipedream.*
- *Never*
- *Gonna*
- *Happen*

We are in some serious shit here. Global warming is accelerating out of control and we still think that technology is coming to the rescue. We somehow still believe that the *Green Lean Mean Renewables Machine* is going to cool everything down in time — ‘just you wait and see!’ — after which we can simply

grow from 8 to 10 billion people to a stable, sustainable, peaceful, tolerant and happy global community, and consume happily ever after.

Stop it!

Before we get all mushy about our glorious future, we should first hold the techno-optimists to account. ‘Bring it on!’, I say, ‘And keep your promises’. Because currently all those technological miracles aren’t doing anything. Global warming KPI’s such as average surface temperature, atmospheric CO₂-level, Earth’s energy imbalance and ocean acidity are up and accelerating.

But the techno-optimists are at it for over two decades now, saying that we don’t need to worry and that we’ll be fine and dandy soon, as long as we keep buying EV’s and installing solar panels and windmills. But all this time the global warming KPI’s just went up and up. Something’s just not right here. That needs to change fast, because we’re running out of time.

“When one is in accelerated decline, one must outpace the acceleration.”

Therefore, we must start measuring our progress and success in fighting climate change by global warming KPI’s, NOT by greenhouse gas emissions (which can be and are manipulated) and NOT by the increase of the amount of solar panel and windmill parks, carbon capture facilities, heat pumps, EV’s and batteries.

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

6.10

SM906

What happens when you pull the plug of a bathtub

It's all over the news, if you're willing to look and if the Almighty Algorithm is willing to provide you with it: human-caused climate change and global warming are accelerating out of control. Global average surface temperature, atmospheric CO₂-level, Earth's energy imbalance, ocean acidity — all these global warming KPI's are going up and up like crazy. It is crazy.

And they were never within our control. Not since we started to dump 150 million tons of CO₂-equivalent into the atmosphere every single day. So, what are the consequences of such behavior? Can we just carry on as usual and hope for the best? That the accelerated deployment of renewables technology will come to the rescue and cool everything down before it gets *too* bad?

Think again.

I talk a lot about 'suprasystemic collapse' and 'passing the elbow of an exponential curve'. In general, we don't understand 'accelerated growth and decline' because evolution and natural selection hasn't programmed us with knowledge of that concept. It wasn't necessary for our survival. We don't understand what happens when a system collapses as a result of prolonged increasing pressure. And we sure as heck fire don't believe it can happen to us.

So, I read a response from someone on a post about accelerated decline, where he tried to look for other causes of our current existential predicament.

‘Perhaps the climate models are wrong’, he speculated. ‘Maybe we have just overlooked something of major scientific importance. Was it gamma ray bursts for example? Or large subsea volcanic eruptions? Or maybe a new global more persistent unknown teleconnection (social or physical) phenomenon entered the arena?’

This was my response:

“No. This is what happens when a species exceeds the carrying capacity of its habitat for too long, a concept known as overshoot or overconsumption. The system will collapse as a matter of natural law. It doesn’t matter what kind of plant or animal species does the overshooting, and it doesn’t matter how large the habitat. It will collapse. Last year March our living environment entered a state of cascade failure, the precursor to suprasystemic collapse. We have now passed the point of no return.

Funny thing about accelerated growth or decline: it appears to be ‘stable’ for a very long time until it starts to accelerate out of control. Imagine a fully filled bathtub. When you pull the plug, nothing much happens. You can’t even see the water level drop, unless you take your time and watch it closely for a few minutes (or make some water level markers on the inside of the tub). That will go on for a long time. The water mass is stable, no waves, no whirlpools. It just drops down ever so slightly and ever so calmly. You can play with your toy boats and bath ducks without interference.

Now, watch what happens suddenly in the end, just before the tub is completely drained: that my friend, is suprasystemic collapse.”

6.11

SM907

Are we the proverbial frogs in a pan of heating water?

It's like an urban myth, that story of what happens when you put a frog in a pan of water and put it on the stove. As the water temperature rises, the frog will stay put and subsequently boil inside out. But if you take a frog to a pan of boiling water and push him in, he'll jump right out. But it's not true. It never happened. It doesn't happen. They have done the actual experiment and when the water gets too hot, the frog will crawl or jump out of the pan. But it's a good story and an apt metaphor.

Take a look at the seven images I added to this post. These are the latest updates on the current status quo of human-caused climate change and accelerated global warming. Just swipe through them and study them carefully. What do you see? Just so I'm clear: this is not just about what you see. We are able to read a simple graph with the time in the X-axis and the variable on the Y-axis. And we are able to interpret (and feel!) colors going from cold blue to red hot. We're not stupid.

Aren't we now? Because perhaps this is not so much about what we see, but about where we see this going. Allow me to explain. If we were a frog in a pan of water on the stove, we would be comfortable for quite a while. First the water is cold and we would welcome some more heat. Then it starts to become

warmer until it reaches the zone where we feel most comfortable: a few degrees below our body temperature.

You can try that out for yourself the next time you take a bath. Just raise the thermostat above 37 degrees Celsius (about 99 degrees Fahrenheit) and see how you like it when the water temperature exceeds 40C (104F). Observe how you feel when you raise the temperature even further. You get really uncomfortable and you inevitable start to squirm. The urge to jump out will become as pressing as the urge to breathe when you try to stay under water for as long as you can. Just remember, when you endure a body fever above 40C (104F) for too long, you die.

So, what if we, all of humankind, are in this bathtub together and the water temperature is rising. Not steadily, but in accelerated fashion. We know this, because we measure the temperature all the time, publishing it regularly, pointing at it and saying to each other: 'Look, this is going the wrong way fast. I'm starting to feel very uncomfortable. What about you?' - 'I'm still good. If you keep your arms above the water level you only get blisters on your legs' - 'I see. I'm gonna try that too'.

Are these stupid frogs going for their deaths? Can't they read their own graphs? Can't they féél what's happening?' What do you think? Look at these images again. Look closely. Again, I ask you: what do you see? Where do you see this going? If I were to ask you to extrapolate the data and extend the curves a couple of decades into the future, what do you see? These are not rhetorical questions; I'm actually asking you to answer these questions in the comment section. You see, the story about the frog and the boiling water might have been debunked, but that doesn't mean that we can't behave exactly the same way, despite our observations and measurements.

To conclude I'd like to extend the metaphor. Suppose that we aren't as shortsighted, ignorant and stupid as that proverbial frog, and the pan of heating water represents our living our environment, our planet. When it gets too hot and we're squirming and wrestling with the heat and reach that point where we want to jump out...

Do you see where I am going here? Do I need to spell it out to you? I guess not.

6.12

SM909

What is the difference between collapse and extinction?

Yes, I'll say it out loud:

– If we keep adding 150 million tons of CO₂-equivalent to the atmosphere every single day, human civilization as we know it will collapse.

– If we keep adding micro- and nano-plastics and PFAS-molecules to the environment our ecosystem will collapse.

– If we keep destroying our biodiversity thousands of times faster than ever before, our living environment will collapse with it.

When a species exceeds the carrying capacity of its habitat for too long, a concept known as overshoot or overconsumption, the ecosystem will inevitably collapse. It's a matter of natural law. Last year our living environment entered a state of cascade failure, the precursor to suprasystemic collapse. But will that lead to the extinction of the species *Homo sapiens*? Not necessarily.

Extinction may or may not be the consequence of societal collapse. But societal collapse is the inevitable consequence of overshoot. Look, suprasystemic collapse is not like a meteorite strike or a nuclear device going off. That's not how collapse works. It might stretch out across 3 or 4 generations, a hundred years or so, during which each generation will be worse off than the previous one. This generation will witness the beginning of the end, our children will

live in the edge of hell and our grandchildren will inherit a world that's devoid of prosperity and wellbeing.

Accelerated global warming will lead to a runaway climate resulting in a hothouse Earth. More and more regions will become inhabitable and mass migrations will ensue, away from the shorelines and the equator, moving towards the (ant)arctic regions where some form of agriculture might still be possible. That's where the last human colonies will reside. But we will aggravate the situation by closing our borders and starting conflicts and wars over territory, water and food and at no time will we realize that a common enemy can only be defeated by global unification. That's a trick we still have to learn, if we ever get a second chance.

Extinction of the entire species is unlikely. We are resilient, experts in survival and procreation. Isolated pockets of human beings will be scattered all around the planet. The only thing that can finally do us in is when some novel virus thaws from the permafrost, one with the infectivity of the measles and the mortality of Ebola. There are countless unknown bacteria, viruses and fungi hidden in the permafrost and we are currently doing our best to thaw them all out. So yeah, that increases the chance of extinction quite nicely.

But extinction or not, societal collapse as a result of ecological overshoot will result in a major population correction, perhaps to 20% or less of the current population. And it will be relentless, ugly, devastating and, most of all, fundamentally indifferent about our feelings on the matter.

There. Something to chew on for today. You're welcome.

6.13

SM913

All global warming KPI's are accelerating: climate change is getting out of control

Which KPI's (Key Performance Indicators) do I mean here? I'm not talking about what causes global warming, like the excessive emissions of greenhouse gases. I'm focusing on the consequences of our behavior as a human species:

1 – Global average surface temperature

2 – Global atmospheric CO₂-level

3 – Earth's energy imbalance

4 – Global ocean acidity

5 – Global sea level

These 5 indicators are all going up in acceleration mode. We're producing solar panels, windmills, heat pumps, batteries and EV's like crazy, but it doesn't change anything, despite the pledges and promises made by the techno-optimist community.

How do I know that all global warming KPI's are not only rising, but also accelerating? Well, why don't you join me in what I did and extrapolate the data yourself? Get the old pencil, ruler and eraser out and start drawing some lines. Look at the 7 images I attached to this post. These are the extrapolation exercises I already did and the message remains the same each time I do them:

progress is not linear, it's accelerating. It should open our eyes for what's coming our way.

Take global sea level rise for example, my latest exercise. It's the least 'sexy' of global warming KPI's, because it is expressed in terms of millimeters of rise in hundreds of years. That's just too little and too far away to spark our imagination. It doesn't do anything for us, let alone scare us. It's too abstract. But global sea level rise is accelerating too. And millimeters add to centimeters and to meters very quickly when that happens.

Take a look at the first of 7 images. I have plotted 9 scenarios based on historical data and extrapolated them into the future. I've looked at the trend of the curve over several periods in the past. And lo and behold, with every decade passing the progress accelerates. It's quite scary indeed, because this happens with every global warming graph I extrapolate. Look what happens:

— If you take the 1940-1980 linear trend, we would have reached 30 cm (12 in) of sea level rise somewhere around 2193. But if you look at the 2020-2060 linear trend, we will reach that level already in 2070!

— But it gets worse. If you look at the 1980-2020 linear trend, we would have reached half a meter (50 cm or 20 in) of sea level rise in 2175. But in the worst-case acceleration scenarios we will reach that level somewhere between 2040 and 2065!

I'm not fearmongering here. You can see the trendline changes for yourself. Just take a look at the other extrapolations I did. They all bring the consequences of human-caused climate change and accelerated global warming much closer to home. In fact, most of the current generation will live to see it themselves. But our children will live on the edge of hell and our

grandchildren will inherit a world that's devoid of prosperity and wellbeing.
Something to quietly contemplate when you have a moment.

6.14

SM914

Another letter to a fan

Planet Earth, 17th of March 2024.

Dear Innocent Globe Trotter,

Thanks for your support to my stance on human-caused climate change and accelerated global warming and my fight against the anti-science movement in general and the climate change denialism movement in particular. It's heartwarming to know that there are folks out there that appreciate what I do. And yes, it gets ugly sometimes. The social media platforms have truly killed the rational discourse! People just don't take any oppositional view anymore. We get frustrated and aggressive in a heartbeat.

I just can't understand what's happening anymore. This year, half of the world's population is taking to the ballot box and half of them, that's 2 billion people, are going to vote for (extreme) right political movements that deny climate change even exists.

It's like in Orwell's dystopian novel *Nineteen Eighty-four*: one's opinion is irrelevant, facts, truth and reality are irrelevant. The only thing that matters is the party's opinion. Facts, truth and reality are what the party says they are (and they might change any moment) and the party is what the leader says it is. Don't think the former US president can't rise back to power. He has used

the judiciary system against itself and abuses the ‘sacred human rights of the indicted’ to delay, delay, delay.

I find it breathtaking what happens in the USA. Tens of millions of people are hypnotized by a moronic, completely berserk autocrat and wanna-be-king that claims that absolute power and immunity is a good thing. This can’t come at a worse time, because if we want to be effective in fighting a common enemy, we have to act as a united front. Currently we are as far away from global unification as the nearest galaxy is to our own: billions of light years.

I repeat: what’s wrong with us? That question has almost become rhetorical.

<big sigh>

<takes a sip of his coffee>

<‘Damn! That’s good coffee!’ he thinks, closing his eyes for just a moment.

Enjoys it>

<opens his eyes>

<looks at the newspaper with ominous deadlines interspersed with trivialities and pop star gossip>

<closes the newspaper>

<checks out his social media feeds>

<‘Too much to respond to’, he sighs. ‘Perhaps tomorrow’>

<Authors 3 posts and 20 comments instead>

<Makes another cup of coffee>

<Apologizes for talking in the first-person singular for so long>

<Swears he's ok. I'm fine, all swell and dandy, don't worry about me, the world's weight on my shoulder will not bring me down anymore. I wiped myself clean if that already a long time ago. What's left it's the desire to write and hopefully inspire others to increase their collapse awareness, resilience and acceptance>

<takes a sip from his fresh brew. Closes his eyes. Enjoys the moment again. Steers his thoughts towards happy and simpler things. Keeps his eyes closed for just a little bit longer. Drifts away. Almost falls asleep. Wakes up with a THUD! Spills his coffee>

Stay sharp and frosty, folks! Batten the hatches and buckle up: the Perfect Storm is coming!

6.15

SM917

We will all have ‘before and after the disaster’ lives

When we are hit with a truly life changing event, we often refer to it in terms of ‘before and after’. Perhaps you lost your partner or a child to a horrible disease or a tragic accident. Maybe your house burnt down to the ground, destroying everything you’ve worked for. Perhaps you suffered a severe injury confining you to a wheelchair for the rest of your life. If it is truly life-changing we can also call it a personal transformation, because as an individual you’ve changed drastically and you now clearly distinguish between the person you were before and the person you are now.

To be clear: I’m not talking about the ‘personal transformations’ of, say, Oprah Winfrey. She must have promoted hundreds of books during her career, each one as an absolute ‘life-changer’. That’s ridiculous. It degrades the term. Leave it up to the Americans to hype everything up to something supercalifragilisticexpialidocious.

No, I’m talking about chaos, fate, misfortune and bad luck taking over our lives. I’m talking about being in the wrong place at the wrong time. I’m talking about getting the bad end of the stick. Whether we’ve experienced a life-changing event ourselves or we know somebody else who went through it, it doesn’t happen to all of us and it doesn’t hit everybody equally hard. That’s all about to change.

Climate change and global warming are accelerating out of control. Last year our living environment entered a state of cascade failure, the precursor to suprasystemic collapse. It's out of our hands now, we've waited too long and now it's too late. From here on out events won't follow a relatively linear path anymore, but a chaotic and totally unpredictable one. From here on out we will all have 'before and after the disaster' lives.

1 – Before and after The Great Drought Dust Bowl Desertification Event

2 – Before and after The Wet Bulb Heat Dome Super Deadly Heat Wave and Hellish Forrest Fire Event

3 – Before and after The Great Monster Downpour Floodings and Mud Slides

4 – Before and after The Double Mother Category 6 and 7 Hurricane Event

5 – Before and after The Global Food Supply Chain Collapse Event

6 – Before and after The Limited Low Yield Short Range Nuclear Strike to Defend Our Borders (and Our Own) Event

7 – Before and after The Mother Methane Hydrate Deposit Super-Ignition Coastal Area Extinction Event

Accelerating global warming will trap us all in one or more of these life-changing events. We will all talk about what was before, how our lives were before, how great it was and why we didn't enjoy it more. We will look at each other, see it in each other's eyes. "We've had our chance", we'll say. "But we blew it. We had a good thing going on, but we just couldn't hold on to it...". "Why not?" our children and grandchildren will ask. "Don't know", we'll say. "It's not that we don't love you. We do, really. I guess we just loved fossil fuels more".

6.16

SM923

We can still fix this!

After my 919th post about human-caused climate change and accelerated global warming in 16 months, someone asked me: *‘I see. But what are your solutions? Can we still fix this?’*

This was my response:

“Yes, we can.

– *First, we would draw up a list with the top 10 highest priority actions required to address overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat (see comment section).*

– *We would use that list to recognize the importance of addressing overshoot on a global level, so, top-down instead of bottom-up.*

– *We would incorporate three main areas of attention: environmental pollution, biodiversity loss and climate change. Each of these areas would focus on a top 10 highest priority actions.*

– *Then we would draft up a master plan on the global level, the World Overshoot Mitigation and Sustain Program, divided into sub-projects on the national level, and sub-sub-projects on the regional level.*

– *Then we would translate all that in a detailed Forward Motion Swift Action Initiative describing the actions/efforts required to move from guaranteed suprasystemic collapse to a fighting chance to survive.*

— *To support the Global Program Plan we would come to an agreement on how to enforce the actions and efforts required to realize this program, with sanctions at non-compliance.*

Sure, we can do all that, no problem.

...in 1990.”

6.17

SM924

All the horrific way down

Look at the dynamic graph about the development of global ocean surface temperature in the post below. Now you know why I say that ‘last year March our living environment entered a state of cascade failure, the precursor to suprasystemic collapse’. This is not a glitch. This will not turn back to ‘normal’. This will escalate out of control. When our oceans die, we die along with them.

Imagine you are the pilot of a large commercial aircraft like an Airbus a380 or Boeing 777. You are airborne, cruising on autopilot at 30,000 ft. All systems are green and you and your co-pilot are enjoying a relaxing cup of coffee. What you don’t know is that your marvel of technology is about to dive into an unstoppable stall, crashing you and all 400 passengers and crew into the Atlantic Ocean at 500 miles an hour.

“Terrain, terrain! Pull UP! Pull UP!”

The reason why you are unaware, is because behind the scenes a multitude of factors has contributed to a cascade failure of the system, preparing for a sudden transformation to inevitable disaster. Faulty maintenance, metal fatigue, software glitches, tunnel vision, conformation bias and conflicting emergency procedures — they all add up to the crash. There were some cautionary warning signs though. Some bells whistling along the way, but they always turned out to be false alarms. So you learned to ignore them.

And that's why you scream so horribly all the horrific way down.

6.18

SM927

Letter to an incorrigible optimist

Planet Earth, 24th of March 2024.

Dear Innocent Globe Trotter,

I understand you want to talk about saving humankind, saving the world from damnation. You want to build on your initiative to bring people together to change things, to make a difference this time. But we can't. Not anymore. We've had our chance and blew it. We've waited too long and now it's too late. Last year March our living environment entered a state of cascade failure, the precursor to suprasystemic collapse. It's now locked into the system.

I believe it is important that we really understand what this means. We have exceeded the carrying capacity of our habitat for over 70 years now (see comment section) and Planet Earth Says No. Something's gotta give. Something is giving. We will not be able to seek a new equilibrium ourselves, because we've let that pass us by. The last time we still had a good chance to fix our existential predicament was 1990. That was our point of no return. Our living environment will seek a new equilibrium for us. Violently. Radically. Indifferently. Whether we like it or not and independent on our feelings about it.

Suprasystemic collapse won't be like a meteorite strike or a nuclear device going off though. It might take another century in which each generation will

be worse off than the last. But we, this generation, will see the beginning of the end, our children will live on the edge of hell and our grandchildren will inherit a world that is devoid of prosperity and wellbeing.

We think it won't happen to us because we are the dominant species on this planet. But it is already happening, we just don't see it yet, because we're part of it. We can't hover above it to see the accelerated decline. That's because we are the decline ourselves. We keep producing books, reports, analysis, articles, scientific papers and conferences about the environment, biodiversity and climate and we keep talking about it until we're another shade of blue in the face.

We keep throwing solar panels, windmills, EV's, batteries, heat pumps and carbon capture facilities at the problem, but it doesn't do anything. Don't you see? We've been debating possible solutions to mitigate our existential problems for over half a century now, and all this time the global warming KPI's kept going up in acceleration mode.

Global average surface temperature, atmospheric greenhouse gas levels, the Earth's energy imbalance, ocean acidity and sea level rise: all accelerating upwards. The extreme weather and climate disasters keep washing over the planet in increasing intensity and frequency. The only thing remaining is collapse awareness, resilience and acceptance. That's what I'm advocating. Because most of us don't have a clue what's coming our way. Nah, well, perhaps it is best that we keep on doing what we're doing until the very last minute. Perhaps ignorance is bliss.

Anyway, stay sharp and frosty. You have been forewarned: the Perfect Storm is coming.

6.19

SM929

We can't understand accelerated decline, because we are the decline ourselves

Somebody quoted in a post from an article about the accelerated rise of global ocean surface temperatures:

“But, for the last twelve months, the seas have been so feverish that scientists are starting to worry about not just the physical impacts of all that heat but the theoretical implications. Can the past year be explained by what’s already known about climate change, or are there forces at work that haven’t been accounted for? And, if it’s the latter, does this mean that projections of warming, already decidedly grim, are underestimating the dangers?”

This was my response:

“Well, I hate to say it but, again: I told you so. I’m a bit amazed about the amazement. Yes, there’s something brewing in the oceans (pun intended) and it is nasty. But what did we expect? That events would unfold in a sort of neatly structured, relatively linear way? That we would have time to adjust to each new circumstance? Oh, come on!

When a species exceeds the carrying capacity of its habitat for too long, without let-up and in ever increasing strength, something’s gotta give. Last year March our living environment entered a state of cascade failure, the precursor to

suprasystemic collapse. It will lead to the Perfect Storm, the accumulation of trigger points that flip each other.

The funny thing about accelerated decline is that it appears to be stable and quiet for a long time. All the underlying components of collapse are already present, but they don't manifest themselves yet. They're just brewing, vibrating, jolting, and shaking, but nothing breaks. And then WHAM! Something does break. Our oceans broke last year March. They will trigger our lands, then our living environment and then our civilization to break.

We can't understand accelerated decline, because we are the downward curve. We are the decline ourselves."

6.20

SM933

Is it unreasonable to worry about the future of humankind?

Well, if you consider the fact that...:

— *Half of the population is taking to the ballot box this year, of which half, that is 2 billion people, are going to vote for an (extreme) right political movement;*

— *The dictators, demagogues and autocrats that rule these (extreme) right wing political movements don't care about the environment, biodiversity or climate, but only about their absolute power and immunity, like kings, and still hundreds of millions of people are hypnotized by their dystopian narrative;*

— *We recently started two wars that mostly resemble the trench war atrocities of WWI and the abhorrent genocide of WWII;*

— *We keep pumping 150 million tons of CO₂-equivalent into the atmosphere every single day, globally increasing average surface temperature, atmospheric greenhouse gas levels, Earth's energy imbalance, ocean acidity and sea level rise;*

...it isn't unreasonable at all to conclude that we deserve...:

— *To drive our natural environment into a state of cascade failure, followed by the suprasystemic collapse of our infrastructure;*

- *To force our children and grandchildren to inherit a world devoid of prosperity and wellbeing;*
- *To run a serious risk of getting extinct prematurely.*

So, no, not unreasonable at all.

6.21

SM934

How to go from bad to worse in your head

Now, for all readers that have kept themselves up to speed on all things considering the environment, biodiversity and climate and are absorbing all the output ‘with interest’, here’s some additional information that might shift your ‘interest’ from ‘geez...’ via ‘shit!’ to ‘oh, fuck!!’

We have short memories. On a daily basis we are inundated with news to the point of indifference. Two things happen:

- 1 – *We retreat to the dataset of knowledge and information that we feel comfortable and secure with.*
- 2 – *We get desensitized: bad news and dire predictions become the new normal. We get used to them. We shake them off.*

To illustrate:

- *Last year, Acapulco was completely destroyed by a hurricane that grew to a category 5 within 24 hours, because the coastal waters had reached a temperature of 32C (90F).*
- *Category 6 hurricanes have already occurred, but the Saffir–Simpson Hurricane Wind Scale only has 5 categories and hasn’t caught up to reality yet:*

Existing scale:

Cat. 1: 119 - 153 km/h

Cat. 2: 154 - 177 km/h

Cat. 3: 178 - 209 km/h

Cat. 4: 210 - 249 km/h

Cat. 5: 250 - 282 km/h

Extended scale (my proposal):

Cat. 6: 283 - 311 km/h

Cat. 7: 312 - 341 km/h

Cat. 8: 342 - 371 km/h

Cat. 9: 372 - 400 km/h

Cat. 10: > 400 km/h

These kinds of hurricanes have the destructive force of nuclear bombs. More and more hurricanes will make landfall as a category 5 or higher, wreaking havoc and flattening entire regions within hours.

— *The Global South-East will be the first region to experience so called 'wet bulb heatwaves', heat combined with high humidity. Even heat-adapted people cannot carry out normal outdoor activities past a wet-bulb temperature of 32C (90F), equivalent to a heat index of 55C (131F). Even if you are young, healthy and fit, heat bulb temperatures will kill you within hours.*

— *Last year a catastrophic flooding struck eastern Libya, killing more than 4,000 people and some 10,000 missing, after heavy rains generated by Storm Daniel, a strong Mediterranean cyclone.*

I can go on and on, but my point is that is we tend to see these events as ‘incidents’ rather than being part of a chain of events that fluctuate in the short term but grow and escalate in the long term. We find it difficult to imagine accelerated growth or decline, because our brains our not cut out for it. It’s not part of our daily experience. The 365-day running mean of the global average surface temperature anomaly is already at 1,5C and the rate of increase is accelerating. Now, if hurricanes, heatwaves and floodings have already reached this level of devastation, what do you think comes next?

It won’t let up. It will get a whole lot worse before it never gets better again. Extreme weather and climate disasters will grow completely out of control in the coming few yéars, not decades or centuries! But inundated and desensitized as we are to these facts and figures, we just scroll on and keep on doing what we’re doing. We’ll probably do that right up to the point of suprasystemic collapse.

Epilogue

SM943

Letter to my followers and readers

Tuesday, March 19th, 2024.

Dear all,

I'm taking a *LinkedIn* sabbatical for a year. There. I've said it.

This is my 943rd post here on *LinkedIn*, since I handed in the final manuscript to my 6th book 'Our Inner Limits' (*De mens als grens*) in October of 2022. That's 946 posts in 16 months or just shy of 60 posts each month. That's 2 posts every day, Monday through Sunday.

Each post is 500 words, the maximum *LinkedIn* allows in a post (and a max of 200 words in a comment), so that's close to 425,000 words in total, or 10 management books of average size, in 16 months, which boils down to about 900 words every day. All in all, it took me up to 5 or 6 hours a day to keep up the pace and it seems like a never-ending endeavor.

(Writing on *LinkedIn* is not about quantity, I know. It's all about the quality of the work, but I leave it up to you guys to make that determination).

Some posts draw a lot of attention, up to 40,000 'impressions', some hardly do anything. It's all up to the Almighty Algorithm of *LinkedIn*, I guess. I'm just

‘small beer’ (Dutch expression) and my reach is severely limited. I’m constantly stirring up a very small sub-sub-sub-section of readers, I’m well aware.

Initially I wanted to wait until I reached 1.000 posts, which has a nice ring to it, but then I realized I was already contemplating quitting this relentless stream of thoughts and contemplations at the milestone of 300 posts. And then it went to 500, 600, 700 posts. I just love to write, it’s fun and I love to create controversy. When I reached my 843rd post I thought it would be a shame to see it all vanish in the endless timelines of LinkedIn, so I captured them in 10 addenda to my book; four in Dutch and 6 in English. You can download them as printable pdf-books for free from my website (see the comment section of this post).

The events with the environment, biodiversity and especially the climate are getting worse every day and I feel helpless and frustrated to keep up with it. It’s like throwing small pebbles in a fast-flowing river. It creates a little splash, a few concentric circles and then it’s gone. So, I’m stepping out to take a breather. I’ll be back on March 19th of 2025 to reassess my stance on the subject. We’ll be able to look back at a record-breaking year I’m sure, and it will be interesting to see who gets it right: the doomers or the deniers, the optimists or the pessimist, the confrontationalists or the skeptics. It will also be interesting to see how I will proceed here on *LinkedIn*.

I’ll be checking in on you guys every month or so. Just a quick post to let you know I’m still there. So, I’m not quitting my subscription and I will still be online, just inactive, not reading my timeline whilst tending to my withdrawal symptoms. I’ll provide you with links to my recent posts and addenda in the comment section, and some other reference material that should get you guys going for another year. And, of course, I thank you all for your support.

Meanwhile, stay sharp and frosty, folks. Batten down the hatches and buckle up; the Perfect Storm is coming!

Bart Flos – Helmond | November 2023 – April 2024.

The Tough Choice: Collapse Resilience

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 really 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 *neoeconomics* 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

The Tough Choice: Collapse Resilience

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).

The Tough Choice: Collapse Resilience

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/o3nCFwhV-9E>

['What is a sustainable population?']

Or, if you really 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,ri sing%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/23nDxPSIoAw?si=ojcO51Eg5bwsDeCI> [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/Qf03Uo4rqGQ> [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-cad1foe5b068>

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/LKO7koKh7Nw> [A Life-or-Death Battle | Fight for Your Life | FULL EPISODE]
33. https://youtu.be/IEu-OW9_YA [Tipping point: immanent systemic environmental collapse]
34. <https://youtu.be/x1SgmFaoro4> [NASA | A Year in the Life of Earth's CO₂]
35. <https://youtu.be/nfv7sIL2uKO> [Al Gore on the World Economic Forum (WEF) about climate change]
36. <https://www.climate.gov/news-features/understanding-climate/understanding-arctic-polar-vortex>

The Tough Choice: Collapse Resilience

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: *Demens 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, collapse and acceptance. 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 passively suffer the consequences of our destructive collective behavior as a human species.

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