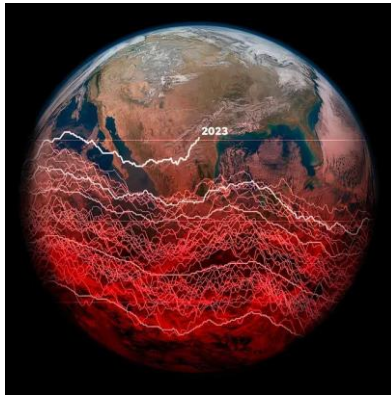


Bart Flos

OUR INNER LIMITS



BONUS – Addendum X

The Last Resort: Collapse Acceptance



The Last Resort: Collapse Acceptance

Our Inner Limits - BONUS - ADDENDUM X

The Last Resort: Collapse Acceptance

OUR INNER LIMITS

BONUS – ADDENDUM X

The Last Resort: Collapse Acceptance

BART FLOS



The Last Resort: Collapse Acceptance

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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Our Inner Limits - BONUS - ADDENDUM X

The Last Resort: Collapse Acceptance

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 'confrontealst', 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 Last Resort: Collapse Acceptance

About this book

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

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

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

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

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

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

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

Each addendum is classified into 11 fixed chapters:

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

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

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

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

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

Good luck and success!

Bart Flos, Helmond | November 2023 – April 2024.

The Last Resort: Collapse Acceptance

Chapter 1

Looking down from above

1.1

SM769

The last mistake we will ever make

I saw a post about plastics pollution, referring to an article that nano-plastics have now even been found in our bottled water. It was quite disconcerting to read.

This was my response:

“Scary read.

If nano-plastics are in our bottled water, which is sold as just about the best thing we can possibly consume, than it is present in ‘everything’. Because we can’t purify it, boil it away, run it through a filter of some kind or scrape it off of the surface. This is systemic environmental pollution at its finest (pun intended).

So, apparently, micro- and nano-plastics are now found everywhere: in the skies, land and water, the holy trinity of our *vtosphere* (*), our habitat or living environment. If plastics have penetrated our living environment, than they have penetrated plants and animals. If plastics have penetrated plants and animals, then they have penetrated us. And *lo and behold*, nano-plastics are now found in our blood, our lungs, our brains and our placentas.

Now, you might be inclined to say ‘Geez, this a big problem! And global too. It’s huge, one of the biggest global problems of our time!’ But then you would be mistaken. Because it’s not a problem per se. Plastics pollution is more of a sub-sub-symptom of something far bigger. The same goes for PFAS pollution. Or air pollution. All sub-sub-symptoms of a much bigger problem.

The decline of the global insect population is also a big global problem. Same goes for polar bears and certain tropical species of frog that are getting extinct; also big problems, so it seems. But they too are mere sub-sub-symptoms of that bigger issue.

Look at the prolonged droughts, extreme heat waves and devastating forest fires washing over the planet: all big global problems. So are violent storms, hurricanes, extreme downpours, floodings and landslides. Big shit for sure. But they’re not problems either. They too are mere sub-sub-symptoms of that bigger thing that hovers over everything and casts a dark shadow over our future.

What am I talking about? All of the ‘problems’ mentioned above are mere *symptoms* of environmental pollution, biodiversity loss and climate change respectively. These Big Three are also global problems. Huge issues, so it seems. But they are not. They too are mere symptoms of the overarching issue, the

Problem of Problems: *overshoot or overconsumption*, when a population exceeds the carrying capacity of its habitat (**). It should be the only thing on our minds, but it is not, because it is a vast, complex, all-encompassing problem. In the reality of our daily lives, overconsumption as an existential problem seems to be rather the furthest thing from our mind.

And that, my dear readers, might be the last mistake we will ever make.

(*) The *vitosphere* encapsulates the familiar surface conditions of Earth resulting from a complex interaction of *atmosphere* (air, clouds), *hydrosphere* (oceans, rivers, lakes), *lithosphere* (land, rocks), *cryosphere* (ice, snow) and *biosphere* (plants, animals - including humans) with the incoming solar radiation.

(**) See also Appendix IV.

1.2

SM774

The Five Stages of Accelerated Global Warming Grief

I was talking to somebody about climate change and about all the disturbing developments that are popping up in our news outlets and social media platforms (alongside other news about economic growth, a new gigantic cruise ship, sports games, funny videos about cats and dogs, cooking tips and dirty gossip about celebrities and politicians) and I mentioned that I had entered the last stage of grief: acceptance and resignation. To which I received the following reply:

“I’m at acceptance and accelerated action”.

That prompted my head to make a little jolt. This was my response:

“I’m sorry and with all due respect, but that qualifies as a contradiction in terms. If you enter the final stage of grief — resignation and acceptance — actions are no longer required or no longer possible. Please allow me to clarify. These are the *Five Stages of Accelerated Global Warming Grief*:

1 – Denial

Denying that it’s too late, that we’ve waited too long, that the collapse of human civilization as we know it today is inevitable. Not only sad people are in denial. Hopeful people are too.

2 – Anger

Wanting to fight it, combat it, actually do something about it. Take to the streets in protest, chaining oneself to fences or glueing oneself to paintings. Maybe, at some point, blowing something up.

3 – Bargaining

Organizing international conferences and summits, trying to influence politicians to change the laws of the land, attempting to persuade others to radically change their life styles (or fossil fuel conglomerates to change their business model).

4 – Depression

Feeling overwhelmed, helpless, frustrated by the global warming statistics, the extreme weather and climate disasters washing over the planet in increasing frequency and intensity. Wanting to cry for humanity.

5 – Acceptance

Knowing that collapse is inevitable but being ok with it. Knowing that you've done all you could while it was still possible to do something. Being collapse aware and collapse resilient with complete resignation.

As you can see, action is done in stages 2 and 3, not in stage 5.”

1.3

SM776

Comparing oceans to economies

Our oceans are heating up in an unbelievable tempo. Its quite disconcerting and scientists have even called it “gobsmackingly banana’s” (just Google it and you’ll find out which scientist said it and why). Sometimes you see these popular-scientific articles that try to make us grab our heads around it in terms of statistics, because they are truly mind-boggling. They compare the amount of heat pumped into our oceans with X amount of Hiroshima-bombs going off every day or the amount of natural gas you would have to burn to heat that much water on the stove.

I saw a post comparing the overheating of our oceans, an ecological problem, to our global economy. Not bad. But I still thought the author didn’t push it far enough. This was my response:

“Interesting statistics. Mind-blowing, in fact.

So, you are saying that with our neoliberal, capitalistic, consumeristic, growth-economic free market we have forced the oceans to absorb 574 times as much heat as our entire global economy produces in one year. Now, let’s extrapolate what that implies for the future of mankind. And because a picture says more than a thousand words, see the comment section. It really does speak for itself.

Our planet is 71% water, 29% is land, 17% is inhabitable land, 12% is habitable land. On this 12% habitable land, about 25 million square miles or 16 billion

acres (*), we live: 8 billion specimen of the species Homo sapiens. But if we think we are safe from the oceans, because we live on land, we are gravely mistaken. If our oceans die, we die with them.

(*) That is about 64 million square kilometers or a little over 6 billion hectares.

1.4

SM783

Just zoom out and you will see

If you willow the news on climate change and global warming you regularly get to see graphs that represent the average global surface temperature going back tens, hundreds, thousands, hundreds of thousands or even millions of years. Sometimes they are limited to time frames that stay a bit close to home, say, from 1850 until now, or from 1923 to 2023.

If you zoom in on these graphs, especially from 1970 onwards, you will notice a specific pattern: it shows periods where it seems to level out and plateau a little bit. Then it holds and shoots up. Then it ‘rests’ again for a few years, like it’s ‘tired’ of its travels and needs to take a little brake. Then it jolts and shoots up again.

You will find some example of these temperature curves here:

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

Do you see? Now look at the latest couple of jolts, say, from 1990 to 2020. Do you notice the giant leaps the curve takes? That is the suprasystem shaking, jolting, vibrating, vomiting and jerking. That is our habitat on the verge of its violent transformation to a new equilibrium.

Now, the climate change denialism industry has consistently, over the years, used these short ‘plateau phases’ in the curve to arbitrarily draw a horizontal

line through them and subsequently isolating that part of the graph and enlarging it. For instance the period 2000-2010, where global warming seems to 'stagnate'. They add exclamation marks to it, shouting "You see?! Global warming is a woke hoax by the leftist elite! It's all going to cool down soon and all will be swell and dandy with the fossil fuels and all. Just relax!"

But if you zoom out, all of these horizontal lines add up to one big accelerating global warming curve. Do you see?

1.5

SM819

Since you asked

Somebody on *LinkedIn* asked his followers three questions. Now I didn't follow this particular individual, but I did answer his questions:

– *What does it truly mean to be human?*

That we survive to procreate, collaborate to fail and coexist to get extinct.

– *What is the most true expression of being human?*

Exceeding the carrying capacity of its habitat for só long, that the entire system now steers towards collapse. Ignoring everything we know about our existential predicament and nó changing our behavior.

– *What does my heart tell me?*

That we really fucked it up this time, in real time. That we no longer deserve the designation *Homo sapiens*, 'the wise, modern, thinking man', but that we truly áre *Homo infantilicus*. (By the way, my head agrees).

– *How do we re-enter a right relationship with all life?*

We can't. It's too late. We've waited too long. We've had our chance and blew it. All we have done is destroy life.

– *We have polluted the environment to the extent that micro- and nano plastics have now penetrated every level of our living environment: sky, land and water.*

- *We are causing the extinction of other species a thousand times faster than the last mass extinction event, including ourselves.*
- *We have caused global warming to accelerate towards suprasystemic collapse, ignoring all the warning signs along the way.*

So, there you go.

1.6

SM820

I would like to say, but I won't

I saw a post from a renewables technology optimist, stating something to the effect of:

“The world added X% more renewables in 2023 than in 2022, the fastest growth rate in Y decades and we're just getting started: in just the next Z years, the world will add more renewables than has been installed - in total - in the previous 100 years”.

This was my response:

“I would like to yell out ‘STOP IT!’ — but I won't.

I would like to take that renewables technology optimism and put it where the sun doesn't shine — but I won't.

I would like to grab the techno-optimists by the shoulders and fiercely shake them back to reality — but I won't.

I would like to point at the global rise of atmospheric greenhouse gases, average surface temperature and the Earth's energy imbalance — but I won't.

I would like to emphasize the lack of causal relationship between the global rise of renewables technology deployment and the decline of global warming KPI's — but I won't.

I would like to be cynical, even sarcastic, about the development of renewables technology, saying that it seems to cause the acceleration of global warming — but I won't.

I would like to say that spreading false hope makes us false prophets — but I won't.

Not this time.

What I would like to do is to urge everybody to wake up and smell the coffee. Renewables technology applied within the old system of neoliberal, capitalistic, consumerist, growth-economic free markets, is only going to make things worse. In fact, it IS making things worse. I would like to advocate collapse awareness, resilience and acceptance instead.”

1.7

SM823

Why doesn't accelerated growth or decline scare us?

What if I told you that something sinister is going on with the climate? That we are riding an accelerated curve, but we can't see it, because we're on it? That we don't grasp the concept of exponential growth or decline, because our brain doesn't work that way?

Look at the first of the seven graphs I have attached to this post (this graph was a depiction of the '365-day running mean global surface temperature anomaly', or the average global surface temperature on any given day as mean of the past year). What do you see? In order to understand what we see, we have to identify the different components of this graph, answering questions like:

1 – What is 'global surface temperature'?

2 – What is an 'anomaly', a 'baseline', a '365-day running mean'?

3 – What are these numbers on the vertical axle?

Climate scientists assume we know all that. They assume that 'everybody' is familiar with these rationalities, with these aspects of climate change/ global warming. But we are not. We, the general public, don't know what we see, don't understand these variables and don't realize what it means.

Now, I'm not going to answer these questions. That's not the point of this post. You can find perfectly good information about climate change/ global warming on the websites of the IPCC, WMO and NASA, to name but a few trustworthy institutions. But what I am going to do is spell it out. Because this graph should scare the bejesus out of you (which I'm sure it still won't after you finish reading, because our brain just doesn't work that way).

Take a look at the highlighted data points in the graph. They represent the progression of the global average surface temperature (land and oceans combined) in specific intervals of a quarter of a degree Celsius:

- (1) 0,25C – Mar. 15, 1941 (*my estimate*)
- (2) 0,50C – Mar. 13, 1980
- (3) 0,75C – Dec. 20, 1990
- (4) 1,00C – Apr. 22, 2010
- (5) 1,25C – Apr. 8, 2016
- (6) 1,50C – Jan. 19, 2024

This is the time passed between those datapoints, rounded up in years:

- (1) and (2) – 39 years
- (2) and (3) – 10 years
- (3) and (4) – 19 years
- (4) and (5) – 6 years
- (5) and (6) – 8 years

Do you see? It follows a certain pattern that you can extrapolate into the future, like so:

(7) 1,75C – 2028

(8) 2,00C – 2034

(9) 2,25C – 2036

(10) 2,50C – 2039

(11) 3,00C – 2040

Now, please note that these years do not represent the distant future, like you mostly see in abstract future predictions, such as the year 2100, or 2070, or 2050. No, the next data point is only 4 years away, and the next after that is only a decade away. That is practically in the 'here and now'. Do you see now? If you extrapolate the data, based on historical progression of these data points, this is what you get: accelerated growth.

Don't believe me? Do you think it is 'impossible' that we will reach a global average surface temperature of 2C all year around in 2034? Well, that's because we don't understand accelerated growth. We have no experience with it, simply because we never experienced it before. And that's why it doesn't scare the bejesus out of us. But it should. It really should.

1.8

SM824

We must STOP saying what we need to do and START seeing what we're going to get

I've been monitoring closely, for over a year now, what we're talking about here on *LinkedIn* when it comes to the environment, biodiversity and, especially, the climate — the zillions of messages varying between denialism and doomerism, skepticism and confrontalism and between techno-optimism and techno-pessimism. And yes, I am fully aware that it is actually and factually LinkedIn's Almighty Algorithm that determines what I get to see and what not, but let's put a pin in that for now.

I would like you to look at a specific subset of these posts: the techno-optimism-positivism ones. It seems impossible, but I would nevertheless like you to entertain an abstract thought. What if you could somehow chew up all of these thousands of techno-optimistic posts referring to thousands of websites and articles, digest them and spit them out as one general, average finding? Would we need AI to do that? Nope. Because I just did. With my puny brain.

All of these constructive, hopeful and positive messages about our future in a world of manmade climate change and accelerated global warming, can be summarized in one short sentence:

“Yes, the situation is very bad, but no, it’s not too late, we can still do something, but we really need to hurry up”.

And after a summation of misery with the state of the environment, the biodiversity and/or the climate, the next sentences all seem to start with the same three words: “We need to...”. After a careful analysis of ‘the shitstorm we have caused’ and ‘the bloody mess we’re in’, you get an endless summation of things ‘we need to do’.

- *We need to get off of our hands and start moving fast*
- *We need to move faster here and speed up things there*
- *We need to increase this and decrease that*
- *We need to go here and not forget to visit there*
- *We need to ramp up our efforts here and start running there*

Of course, if all you have is a hammer, everything looks like a nail, but just take a look-see, it’s everywhere. We’re inundated with advice about what we need to do, from a variety of scientists, specialists, environmentalists, optimists and ‘positivos’. Now, to make my point, I must be very careful. Because I can’t say what we ‘need to do’ instead. That would be like the pot calling the cattle black. Yet, I would like to be the exception that confirms the rule, so here’s what we need to do:

“We must STOP saying what we need to do and START seeing what we’re going to get!”

Because it’s too late for what we need: the deployment of renewables technology to save ourselves from suprasystemic collapse. We’ve had our chance and blew it. *Boohoo*. But it’s not too late to see what we’re going to get.

We've exceeded the carrying capacity of our habitat for over 70 years now and Planet-Earth-Says-No. Suprasystemic collapse is now locked in and all we're left with is encouraging collapse awareness, resilience and acceptance.

I say.

1.9

SM835

How about seeing things in perspective?

I saw a post referring to a news article with the following header:

“EU lays out plan to cut greenhouse [gas] emissions by 90% in 2040”.

This was my response:

“I don’t want to be a partypooper here, but the EU has emitted a total of 2,5 gigatons (Gt) of CO₂ in 2023, whilst global CO₂-emissions were about 37 Gt. Even if Europe succeeds in reaching these ambitious goals, it will have only reduced global emissions by only 6% compared to current global emissions. However, despite the overly optimistic prediction from the IEA that CO₂-emissions will peak this year, the combined economic plans of the 200 countries of the world, predict a rise of global CO₂-emissions to 43 Gt yearly by 2050.

Even if we were to reach peak emissions, that would only mean a plateau phase setting in, after which a gradual decline is predicted. But that would imply that we would still emit 35 to 40 Gt of CO₂ yearly in the next ten years, 30 to 35 Gt yearly in the decade after that and 25 to 30 Gt yearly in the decade after that. It would still add up.

Cumulative CO₂-emissions to date are 1.500 Gt, rising to 2.500 Gt in 2050, based on the current economic plans of the 200 countries of the world. Global

atmospheric CO₂-levels are at 420 ppm, rising to 500 ppm in 2050 (preindustrial levels were at 280 ppm). CO₂ stays airborne for thousands of years. If we want to reduce CO₂-levels, we need to get every molecule out.

I understand that we want to be hopeful, but we should really start reporting on the global level, where things are getting worse fast.”

The Last Resort: Collapse Acceptance

Chapter 2

The frontal confrontation

2.1

SM750

What if we were asked to decline the human population voluntarily?

Ok. Let's do a little thought experiment. It concerns our existential predicament, so if you're not interested in the consequences of environmental pollution, biodiversity loss and climate change, you may scroll on. And if you're not interested in the consequences of overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat, leading to suprasystemic collapse, you may also go about your business.

— *Let's assume we all come to our senses and address the real elephant in the room: overconsumption (overshoot) caused by overpopulation.*

— *Let's assume that we all agree that overshoot is the overarching issue and that environmental pollution, biodiversity loss and climate change are mere symptoms of overshoot.*

Still with me? It's a thought experiment, so we have to do some assumptions first.

— *Let's also assume that we agree that 28 COPs in as many years (and a zillion books, reports and analysis) have changed diddly squat about the rise of global atmospheric greenhouse gases, average surface temperature and the Earth's energy imbalance (to name but a few).*

Now imagine that all 200 countries in the world have an epiphany:

“Well, what do you know? It's overshoot after all! We need to do something about our numbers”.

Also imagine that COP29 is not organized in the next fossil fuel loving country, but at one of the submerging islands in the Pacific Ocean (all members must travel there by sail boat). And finally, imagine that the 200 countries of the world reach explicit joint agreement, producing a one page (!) end report that reads:

“In order to save our living environment from becoming inhabitable, we must revert the current 1% yearly population growth into 1% yearly decline, starting at January 1st of 2025. In that tempo, the world population reaches 6 billion people in 2050 (instead of 10 billion, which is a good start) and 1,3 billion people by the end of next century (the ideal number).

These are the targets for each nation for 2050 and 2200 respectively, in hundreds of millions of people, with current population between brackets:

- *China 1.060 | 226 (1.413)*
- *India 1.049 | 223 (1.399)*
- *USA 250 | 53 (335)*
- (...)

And in millions of people:

- *Germany 62 | 13 (83)*
- *UK 50 | 11 (67)*
- *The Netherlands 13 | 3 (17)*
- (...)

(The list goes on for all 200 countries in the world).

We thank all participants of the COP29 for their participation and wish them a safe sailing journey home”.

The end report comes with a large volume of instructions on how to go about that 1% decline, but that’s not important for now. Just think about it for yourself: how would we get about that? Did you imagine it? Got the picture? Now please, answer me this: if we’re not going to do this to save our world from becoming inhabitable, what else is there? Because, with our current efforts, we clearly suck at getting our global shit together.

2.2

SM751

Are we asking the right questions?

During the climate change / global warming transition year 2023, concerns about the systemic drought in the Amazon increased. The images were staggering, with once mighty rivers completely dried up, leaving the corpses of countless species to rot on the waste land. Someone worried about these extremely disconcerting developments asked:

'How big of a problem is this?'

Is that the right question to ask, I wonder. This problem will not be limited to the Amazon; that region is only the first to suffer from ecological and economic collapse as a result of global overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat. What you see happening in the Amazon won't stay limited to the Amazon. Overshoot is a global issue and the atmosphere knows no boundaries. Accelerating global warming will lead to a 'runaway climate', forcing us all into a 'Hothouse Earth'.

But we can't be surprised! We can't say 'What the heck is happening over there in the Amazon? Where did that come from all over sudden...?' All over sudden?! We knew this was going to happen. It was just a matter of time for a region such as the Amazon to collapse. No surprises there.

And that's why I believe the question 'How big of a problem is this?' to be incorrect. The question should be: 'Who's next?' Which region will be hit with

a system's crash next? What record downpours and floodings and how much extreme droughts and heat waves are required to collapse the next ecosystem?

Suprasystemic collapse is coming; it's a mathematical certainty. This is only the beginning and it's going to be the perfect storm.

2.3

SM758

The year 2023 was the year we broke the system

In terms of observing actual events, real time, on a day to day basis, 2023 was the year of crazy, bizarre and ridiculous. The measurements of, for instance, the global average ocean temperature started to run ‘outside the box’, completely off the charts, deviating from the gradual annual rise over the past decades to completely bizarre deviations from that pattern. You could almost see the exact moment we passed the elbow of the exponential curve, the moment our living environment entered a state of cascade failure, the precursor to suprasystemic collapse: April 2023.

Climate scientists were not only scratching their heads, but some called it ‘gobsmackingly bananas’, and that’s not a phrase you ordinarily see in a peer reviewed scientific study (it didn’t, it was just something somebody said about it). More and more papers on accelerated global warming were published (see Hansen e.a.) and more and more disturbing graphs popped up.

So when somebody posted the latest update of the ‘North Atlantic Sea Surface Temperature Anomaly 1982 – 2024 – Difference from 1991 – 2020 mean’, I was gobsmacked too. I had seen the graph before during 2023, but this was an update of January 2024, and the situation was only getting worse. These were signs of a broken system, shaking out of control. But it was the oceans, you know. “Oh, yah. Geez. The oceans. Very big. Lots of water. Far away. You

betcha, yeah. But I dó have to get the garbage out today, you know. So...”
(Imagine a Nice Minnesotan Accent and you’ll catch my drift).

This was my response:

“I’m not sure that your readers will truly ‘appreciate’ the meaning of this graph. I mean, I am afraid that people who are not used to interpreting such graphs in a glance, will only see the most notable yellow curve (which is a bad enough curve as it is), but will be distracted from that little red curve in the upper left corner, that speaks volumes about what’s happening right now, in real time.

I’ll tell you how I appreciated it. I said: “*FUCK!*”

And then I got this surreal sick feeling in my stomach. That’s a strange experience, feeling existential anxiety based on real time data. This graph should scare the bejesus out of all of us. This is what it looks like when the hydrosphere enters a state of cascade failure, the precursor to suprasystemic collapse. This is what it looks like when a system suddenly jolts out of position and leaves the relatively steady and stable path of year-after-year warming to go completely berserk. This is what a tipping point looks like and it has tipped already almost a year ago.

And we just keep moving on in the same direction, until it hits us smack in the face. Well. Perhaps that is what we deserve. Because if these kind of figures don’t get us off of our hands, I don’t know what will”.

And then, to add insult to injury, someone wrote in a comment: “*There are signs of stationarity since the middle of 2023, though.*” [sic]

This was my response to that:

“Did you miss that little red curve in the upper left corner there, sport? I can understand that you’re trying to remain optimistic, but when a natural system jolts out of control, when it seeks a new equilibrium, it won’t ‘jolt back’. Don’t be fooled by any kind of ‘stationarity’, because that’s extremely deceptive. A system that enters a state of cascade failure will follow a chaotic and totally unpredictable path. Did you even see the yellow curve deviating from the cluster of blue curves? If that doesn’t scare the bejesus out of you, I don’t know what will.

What did you expect? That the yellow curve would jolt out of control, stay ‘stationary’ for a few months and then neatly fall back in line with the other blue curves? Did you expect accelerated global warming to just miraculously go away at some point, just letting up and returning to normal, so we can all go back to our merry lives and happily consume for ever after?

The oceans are overheating, acidifying, and deoxygenating. The global ocean currents are slowing down and destabilizing. If our oceans die, we die with them. It might not seem that way when we watch these kind of graphs carelessly and ignorantly, but we are witnessing the beginning of the end of human civilization as we know it today. How much worse must it become, how many more graphs does it take, how many more alarm-bells must go off before we realize that it’s too late, that we’ve waited too long, that we’ve had our chance and blew it?”

Never heard from him again.

2.4

SM766

So, what am I saying actually?

We live in polarized times on just about any topic, but especially the climate change debate has gotten completely out of hand. It seems that we are forced to choose a position somewhere between doomerism and denial (with climate science in the middle) and then start throwing facts, figures, evidence, proof, lies, half-truths, bogus claims and bullocks at each other.

Recently I have been ‘accused’ of taking the stance of doomerism, that it is wrong to do so and that I should join the Camp of Hope, snuff Hopium for The People and stay hopeful, positive and, if possible, more cheerful about the future of the human species. This is what I had to say about that:

1 – [The climate change debate] is not about what position we must choose between two extremes: doomers and deniers.

2 – This is not about a trench war, or about the extreme polarization within the debate, or about the climate change denialism industry winning the ‘battle’.

3 – This is not about hope v. defeatism, positive v. negative, Yin v. Yang, winners v. losers, left v. right, clever v. stupid or science v. quackery.

None of this is relevant anymore; it has all become a moot point. So what is it all about then?

4 – *This is about undiscovered territory, completely unprecedented events and uncharted waters.*

5 – *This is about a chain of events that is completely outside of our experience and doesn't match anything the human species has ever experienced before.*

6 – *This is about the final taboo: the actual collapse of human civilization, the era of Homo sapiens.*

Of course nobody wants to talk about that. Of course we want to hold on to hope, optimism, promises, pledges, techno-optimism, science and global collaboration. I understand perfectly well that we don't want to say:

'Well, that's it then, nothing more we can do, let's just roll over and die.'

But that's not what I'm saying at all! I'm not advocating doomerism, defeatism or despair. I'm encouraging *collapse awareness* and *collapse resilience* based on the fact that collapse is now locked into the system. And ultimately I encourage *collapse acceptance*.

7 – *I'm saying that we must STOP organizing COPs, STOP spending time, money and energy on delusions and pipe dreams and STOP fooling ourselves.*

8 – *I'm saying that we must START to do away with all the intentions, theories, hypothesis and contemplations about our fate and just BE.*

9 – *I'm saying that we should START to consume less, chill more, stop growing, be satisfied with what we've got while we still have it.*

10 – *I'm saying that we should START spending less time on work and career and more time on family, loved ones and friends.*

We should live our lives out without further growth, stay in the moment, take one day at the time and just be cool and chill about it. We should START doing

that now, because the time we have left in relative stability is now measured in years, not decades. The perfect storm is coming.

That's what I'm saying.

2.5

SM772

A bone-dry announcement of utter destruction of life

And there it was: another development on our way to suprasystemic collapse. Somebody forwarded an article with the bone-dry title:

“Norway approves deep sea mining in Arctic Ocean”

Well, my dear readers, I am of the opinion that the title should have been:

“Norway finally approves of one of the most wicked things human kind can engage in: approving deep sea mining in the Arctic ocean, which will destroy all life down there and all that to harvest some precious rare metals to keep our renewables transformation revolution underway”

The editor-in-chief would have intervened, I’m sure.

I get feelings of both anger and frustration when I realize that we, Homo sapiens, another species that emerged from evolution and natural selection, have developed not only the technology, but are now actually going to deploy it, sending gigantic machines to the depths of the sea to excavate the minerals lying at the bottom. These machines will scrape the ocean bedding and suck up all that is present, destroying the ecosystem and wiping out all living things present.

It has taken billions of years to develop complex biological life. All life began in the oceans. Most of these habitats have gone undisturbed for hundreds of millions of years. And then along comes ‘the wise, thinking, modern man’. And invents a machine that will, from the perspective of the life forms roaming the deep sea beddings, descend from the heavens and create havoc by destroying all and everything in its path.

It saddens me that we simply can’t think of anything else than to destroy habitats to satisfy our ever increasing needs. That we simply can’t — or won’t — grasp the concept of extinction, other than to impose it to other species before we inevitably impose it to ourselves. 99,99% of all species has gone extinct in the history of our planet and we are no exception. But we are the only ones accelerating our demise.

And therefore I strongly believe that we no longer deserve the designation *Homo sapiens*, ‘the wise, modern, thinking man’. We truly are *Homo infantilicus*.

2.6

SM784

I want them to be right and me to be wrong

I saw a post looking back at the year 2023. It said that 2023 was the year we ‘bent the curve’, became ‘commercially sensible’ (I wonder what that means exactly) and ‘citizens demanded change’. It said that 2023 was ‘the last year of fossil fuel dominance’ and the year ‘we learned how to count and account for carbon and the cost of carbon’.

That’s one way of looking at 2023.

I understand that we want to look at last year through the lens of hope and optimism. I understand and sympathize that we want to give a positive, hopeful message for the years to come. I understand. I really do. If you are prone to these kind of messages, who am I to argue that it is, in fact, the exact opposite? That 2023 was the year we passed the elbow of the exponential curve. That our living environment has entered a state of cascade failure, the precursor to suprasystemic collapse. That 2023 was the year we passed the point of no return and collapse is now inevitably locked into the system, no matter what we do.

Who would you rather believe: me or them? I think I know the answer. But what if I’m dead right and they are dead wrong? Isn’t it interesting that I can

honestly say that I want them to be right and me to be wrong, but they cannot say the same? Fascinating.

2.7

SM794

Distraction is a dangerous thing

Since I published my 6th book in December 2022, I have authored over 800 (re)posts about the environment, the biodiversity and, especially, the climate. That's 65 posts each month, 2 each day, every day. During my observations, discussions and heated debates about the concept of accelerated global warming, I have noticed one peculiar and persistent phenomenon: distraction. We are constantly distracted, urged to move away from the core issue, the overarching problem: 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, so even when we debate these three 'big topics', we are distracted from what should be the only topic. But of those three, climate change just smacks us more directly in the face.

Distraction is a dangerous thing:

— *The climate change denialism movement is distracting us by sowing doubt about the causes and consequences of climate change. They won't even call it global warming.*

— *The renewables technology revolution movement distracts us from reality by constantly repeating their mantra that 'yes, it's very bad, we've made a mess, but no, it's not too late and oh yeah, we can still fix this. Praise be!'*

— *The current global tug to the (extreme) political right is distracting us by blaming other people for the problems in the world, whilst denying that climate change even exists.*

— *Our daily chores and worries on supralocal scale are distracting us from the suprasystemic collapse that is coming our way, leaving us totally unprepared for its dire consequences and the chaos it will ensue.*

— *Even the scientific community is distracting us sometimes by focusing on a single isolated topic — plastics and PFAS pollution, the extinction of insect and bird populations, the polar vortex — forgetting to mention that these are all mere sub-sub-symptoms of overshoot.*

Distraction is a dangerous thing, because it leaves us with an even more dangerous paradox: we have all the information we need to make an informed decision, yet we don't. We don't decide. We don't solve our issues; we fight only the symptoms. We are fundamentally divided about the best way forward and therefore we remain inactive on the only level that counts: the global level.

Now, what do we do when we are distracted (and oftentimes deceived, dis-informed and diluted) and when we experience an information overload? We retreat. We fall back to what is familiar to us, to areas of safety and trust, to one-syllable concepts that are more easy for us to understand and remember. This couldn't come at a worse time. Because our *vitosphere*, the joint venture of atmosphere, biosphere, lithosphere, hydrosphere and cryosphere, has entered a state of cascade failure, the precursor to suprasystemic collapse.

The more we allow ourselves to be distracted, the worse it will be for us to get accustomed to the concept of collapse awareness, resilience and acceptance.

2.8

SM796

What's holding us back to solve our problems?

Somebody pointed me to an article about the state of affairs with the environment, biodiversity and climate. A long piece, authored by another passionate human being, concerned with the way things are accelerating and escalating.

This was my response:

“So, here we go again. Another good story. Another well written article, derived from a, no doubt, well-delivered speech. But it's a long read. Long paragraphs. Lots of well-constructed sentences, inundated with history, philosophy, cinematics, a little bit of science and very little humor.

So, yes. Excellent. We've got another live one. Now, please, bear with me. Imagine that you are entering a huge warehouse through a steel door that reads “Climate Change / Global Warming”. The warehouse is divided into four sections:

1 – books

2 – articles

3 – videos

4 – websites

(This is a thought experiment, so just imagine the articles are hardcopy printed, the videos are all on DVDs and the websites are archive boxes with each page printed on paper).

Now imagine that this particular warehouse contains ALL the books, articles, videos and websites about climate change / global warming ever produced, including this one, piled up to the high ceilings. Also imagine other huge warehouses next to this one, named “Environmental Pollution”, “Biodiversity Loss” etcetera. All the big topics of today. Now I ask you this: with all this knowledge, why haven’t we solved our problems yet on a global level? What’s holding us back?”

2.9

SM811

It's high time we go from polite to polemic

Have you noticed? When I write my posts about the environment, the biodiversity and especially the climate, I rarely use the words 'probably', 'likely', 'expected to', 'maybe', 'perhaps', 'could be', 'should be' or 'possibly'. Instead, I say it like it is. I tell you guys what's going to happen, how it will be, what's actually coming our way and how it is really going to play out. Like I know it for a fact, like I'm 100% sure about the future of mankind.

All scientific institutions and all scientists are careful and nuanced by nature. They can't just blurt out that something is going to happen for sure. There's always a margin of error, there are uncertainties, unknown factors and unforeseen circumstances. That's why you see these carefully constructed, nuanced, overly cautious texts in reports and science papers, full of words like 'probably', 'likely', 'expected to', 'maybe', 'perhaps', 'could be', 'should be' or 'possibly'.

There's this brilliant scene in the movie 'Don't Look Up!' (if you haven't seen it yet, shame on you) where the scientist says "It's 99,99% sure that it's going to happen!" (I'm paraphrasing here), to which the moronic son of the president says "Aha! So it's not a hundred percent sure!"

That is exactly the reason why I write about immanent suprasystemic collapse and the fall of human civilization as though it is 100% certain, no doubt, gonna happen, for sure, it's coming, *you betcha*. Because I want to prepare us for the

certainty (!) that we're already following the worst case scenarios of the IPCC and other recent studies that indicate that our models aren't necessarily wrong, but just fed with too conservative data, too little tipping points, too much wishful thinking.

What if it is true? That our living environment has actually entered a state of cascade failure, the precursor to suprasystemic collapse? That it actually is locked into the system? That it's too late, that we've waited too long, had our chance and blew it? Because when I start saying that it is 'most probably' going to collapse, or it is 'most likely so', or it 'could very well be', or 'perhaps, maybe, if we're not careful, it might just get a tad out of hand', I hear you guys thinking:

'Aha! So it's not a hundred percent sure!'

And then you will say 'Gosh...' and scroll on. Go to work and school. Get the garbage out. Pay the mortgage and the bills. Grow your careers and businesses. Buy more stuff online. Take care of your health, cuddle your pets and cherish your loved ones. We have to start acting like every worst case scenario IS going to come true, like we ARE headed for the collapse of human civilization.

Because we human beings don't get frosty and alert from possibilities, likelihoods or probabilities. We only snap into gear when danger hits us smack in the face. And the problem with accelerated global warming is that it doesn't affect all of us, everywhere, in the same way, just yet.

Until it does.

2.10

SM825

We are truly unworthy

Somebody forwarded a video circulating the internet about how the introduction of wolves into a habitat will restore the ecological balance of that habitat. The wolves will kill off the excess of moose deers, which means less grazing, which allows grass and plant life to thrive, which attracts pollinating insects and so on, and so forth. And it is truly amazing what happens.

This was my response:

“The first time I saw this video it brought tears to my eyes. Tears of my awe for nature, but also tears of anger and frustration. Because we only need to let go of our destructive grip on nature to make it flourish. We only need to stop our filthy habits to allow our living environment to grow back to a state of equilibrium that allows all forms of life to flourish.

So, before we think we can fix our shit by just introducing a couple of wolves into the woods, we should add another 2 minutes to this video:

— *30 sec to show that micro- and nano-plastics have now penetrated the entire viosphere: sky, land and water, penetrating all life, including ours. Plastics are now in our blood, lungs, brains and placentas.*

— *30 sec to show that we are causing the extinction of plants and animals a 1000 times faster than any mass extinction in the history of life on this planet.*

— 30 sec to show that prolonged droughts, extreme heatwaves, massive downpours, destructive storms, hurricanes and floodings are the results of us, not adding more wolves into the wild, but greenhouse gases to the atmosphere.

— And 30 sec to acknowledge that we are the most stupid life form ever to have roamed Earth's surface.

We are truly unworthy.

2.11

SM826

Did you know I used to be an incorrigible optimist?

Those were the days, back in 2015, right after the Paris ‘agreement’ to limit global warming to 1,5C above preindustrial levels, when I published my 5th hopeful book about the future of mankind. Heck, I even did a TEDx Youth Talk about it in Amsterdam:

<https://youtu.be/bpJiUcwXHDQ?si=oLyobvoTScVAjInB> [‘Futurology for Fanatics — Hope for The Future of Man Ape and Mother Planet’]

I used to call myself an incorrigible optimist because I was one. Really. I was glowing with sheer optimism about our abilities to clean up the mess we made and preserve our planet as a home base to take to the stars.

“To boldly go where no one has gone before”.

(Yes, I am also a Trekkie and a Star Wars fan, but that was long ago and in a galaxy far, far away).

When I published my 5th book, I was a true techno-optimist. ‘The sky is NOT the limit’, I wrote. ‘We need to get off of this planet to spread ourselves amongst the stars!’ You know, like Elon Musk, but without the billions of dollars to back it up.

Fast forward to the here and now: February 2024.

Well, everything has changed. Not only did I undergo a radical transformation from incorrigible optimist to self-proclaimed ‘confrontealist’, but our existential predicament has worsened dramatically. It took me the better part of a decade to realize that something far more sinister is going on than ‘just a little bit of climate change here and a tad of global warming there’. The whole damn thing is accelerating out of control and nothing seems to be able to stop it.

Since the conception of my positive, constructive and techno-optimistic YIPPEE-KI-YAY book one decade ago we have:

- *Added 1 billion people to the human equation, to over 8 billion;*
- *Organized 9 international climate conferences (COPs) that only produced creative semantics and word-jogging;*
- *Increased the GWP, the Global World Product (the sum of all GDP’s) from \$ 90 trillion to \$ 105 trillion;*
- *Burned 365 billion barrels of oil, 80 billion metric tons of coal and 4.000 billion cubic meters of natural gas;*
- *Produced 600 million non-electrical vehicles, 4 billion metric tons of plastic, 20 billion metric tons of waste and 40 billion metric tons of cement.*
- *Added 360 gigatons of CO₂ to the atmosphere, taking cumulative emissions since the start of the Industrial Revolution to over 1.500 gigatons;*
- *Raised the global atmospheric CO₂-level from 395 to 420 ppm;*
- *Increased Earth’s energy imbalance to a whopping 2 W/m².*
- *Started 2 wars that still resemble the trench war atrocities of WWI and the reprehensible genocide of WWII;*

— *Successfully indoctrinated 2 billion people to take to the ballot boxes to vote for a(n) (extreme) right political movement to ultimately install a dictator/ demagogue/ autocrat controlled regime that vehemently denies the existence of climate change/ global warming and vows to 'keep on drilling and drilling, baby'.*

So, you see, there is a cure for incorrigible optimism after all.

2.12

SM838

Debate without action creates doubt, confusion and withdrawal

I saw a post reading the following:

“Scientists have challenged the conclusions of a new study suggesting that the planet has already exceeded the 1.5C warming threshold set under the Paris Agreement. The new study uses proxy data from sea sponges in the Caribbean Sea to create a record of ocean temperatures from 1700 to the present day, and suggests that warming started 40 years before the IPCC’s baseline period began. However, many experts have warned that the framing of the study is misleading.”

This was my response:

“This is a pointless debate for 3 reasons:

1 – We should abandon the IPCC’s 20-year moving average of global surface temperature.

In times of accelerated global warming (Hansen e.a.) we should use the 365-day mean of the global average surface temperature instead. It is already at 1,5C and will rise to 1,7C in 2028 and 2,0C already in 2034! We must outpace the acceleration of warming with a different set of measurements.

2 – *We should stop organizing international conferences and summits altogether.*

Clearly they don't work. Politicians, policy makers and even scientists are debating which t's to cross and which i's to dot, whilst we're seeing clear evidence of a runaway climate and a hothouse earth already. All this debate without action only creates doubt, confusion and withdrawal.

3 – *When scientists debate the finer points of peer reviewed scientific studies, the climate change denialism movement says:*

- *“You see? If they can't agree on this, how can they agree on anything?”*
- *“Yeah. Scientists don't know everything, you know”.*
- *“Instead of playing with their sponges they should climb off of their high horses and don't pretend to know any more than we do”.*
- *“Yeah. Science is just another opinion. And did you know it was also very cold in The Middle Ages? And very hot in 1976?”*
- *“Yeah”.*

<big deep sigh>

PS I recently authored a few posts that might help us gather our thoughts and contemplations and understand why it is so difficult for us to intervene in a process that is clearly threatening our very existence.

1 – <https://lnkd.in/eTYFstbU> [Why doesn't accelerated growth or decline scare us?]

2 – <https://lnkd.in/eTQd8dYU> [Even when our civilization breaks down, there's still a lot we can do]

- 3 – https://lnkd.in/eDrcK_WS [Where do you stand on the scale between climate change denialism and doomerism?]
- 4 – <https://lnkd.in/e6U3Fp6J> [Our Civilization Has a Lifespan of Only Ten Days]
- 5 – <https://lnkd.in/eBhRppZA> [The Five Stages of Accelerated Global Warming Grief]
- 6 – <https://lnkd.in/e5hsvTSc> [The Fragmentation Problem: Why There Are No Solutions to Our Global Problems]
- 7 – <https://lnkd.in/eq6iGpZd> [Did you know I used to be an incorrigible optimist?]
- 8 – https://lnkd.in/e6zqV2_3 [We should stop talking about the year 2100 | On the difference between linear and accelerated decline]

The Last Resort: Collapse Acceptance

Chapter 3

About climate stupidity

3.1

SM752

The greatest fallacy of all

Somebody posted a hopeful story about degrowth, that we must change the way we think about our neoliberal, capitalistic, consumerist, growth-economic free markets and start changing our habits. All true. Praise be. But then he mentioned the Corona pandemic as an example of “we’ve done it and we can do it again”, like it was a good reference story to state that “we have ‘degrown’ before and that is a hopeful thing”.

So I responded in kind:

“Thanks for sharing. But do you see what you are actually saying in your post?

Never - Gonna - Happen

In 2020, the peak year of the pandemic, CO₂-emissions of fossil fuels and industry were reduced by only 7%. But that wasn’t like we volunteered. Our

hands were forced. We accepted it with our teeth grinding and protested it vigorously at every turn. Within a year we were back at previous emission levels and the year after we reached an all-time high of 37,5 gigaton of CO₂ (2022). Last year we reached an all-time high of about 39 gigaton. Next year we will reach the all-time high of...

Do you see what I'm getting at here? After the pandemic everybody wanted back what they had lost. Every company, multinational and conglomerate wanted their lost revenue and lost profits back. Everybody wanted their freedoms back. The freedom to make money, grow, build, travel, party, buy stuff and live the material 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 you think, somehow, that we are willing, freely and voluntarily, to go back into global lockdown for years, because that's what you are saying in essence. It's almost impossible to think of a greater fallacy than this kind of flawed reasoning to spread hope. If that is the background story, than it's false hope brought to us by false prophets.

(And I can think of a greater fallacy: saying that 'science is just another opinion', but that's a whole other story.)"

3.2

SM753

Worrying about the audience

Somebody posted about the extreme cold spells washing over the entire United States of America, with temperature records being broken and huge accumulations of snow, dangerous ice storms and destructive downpours. It was explained by the meandering of the jetstream, allowing enormous amounts of cold air rushing down from the Arctic regions on one side, while pushing up enormous amounts of hot air from around the equator on the other. It was a well written post, with solid science and written for a broad audience.

That audience concerned me. So this was my response:

“Thanks for sharing. Good story. Factual, informative, freezing our butts off. Now, I can imagine whole tribes of climate change deniers spitting in their hands, rubbing them together, to take to the keyboard and start writing viciously:

- *‘Look! It’s bloody cold out there! Where’s your climate change now, huh?’*
- *‘I told you so! All this leftist woke talk about global warming is just a hoax. I could use some global warming now!’*
- *‘Look, mom, a snowball! Climate change isn’t real!’*
- *‘You see, people? It’s all going to be ok. Winters are coming back and we’ll be just fine. The climate has always changed and will always change.’*

So, please, could you add an explanation to why this extreme contrast is happening? That global warming doesn't only concern heating, but freezing as well, based on changing patterns in the jetstream and the oceans, as part of the transition phase from one equilibrium to the next? If you're not willing to, could somebody else please join in and make some sensible comment, based on solid science, that we shouldn't cry victory over weather anomalies?

Thanks.”

3.3

SM771

“We don’t have a plan!”

I was engaging in discussion about the reasons why we have so much difficulties in doing something about climate change / global warming, in particular, why we don’t seem to be able to find a way that pulls our resources together on a global level. We were discussing the reasons why climate change mitigation seems to remain stuck at the individual level (books, thoughts, philosophies, brilliant ideas), the local level (protesting the fossil fuel industry in our towns, planting more trees in our neighborhoods) and the regional level (reducing CO₂-emissions, banning plastic bags and straws, closing fossil fuel facilities).

And then all over sudden my opponent said:

“You know what the real problem is, Bart, with this whole damned thing? We don’t have a plan!”

That’s actually what he said. So I had to go with it. This was my response:

“We don’t have a plan? Are you serious? We have all the plans in the world:

We have scrutinized the problem back and forth, analyzed it to death, broke it down into smaller parts, glued it back together again, run it through MS Projects, made a zillion Excel sheets, discussed it, wrote books about it, shared it with everybody, organized international conferences on it, talked about it

some more, adjusted the planning (because we missed the deadline), talked about it again, wrote some more books, came up with new ideas that turned out to be old wine in new bottles, organized a few more conferences, had some more discussion, adjusted the planning (because we missed the deadlines), got a little frustrated, uttered a big sigh, changed the font of the header of the master planning document, saved it, looked outside, saw the extreme weather and climate disasters washing over the planet, scheduled a teams-meeting to talk about it, had some coffee, adjusted the planning (because we missed the deadline), got a little frustrated, went online, ordered stuff from China we didn't really need, noticed that the packaging weighed more than the product, scheduled another meeting to discuss what the best way forward would be in assembling an advice committee to investigate the prudence of crafting a secondary committee to come up with a draft version of a plan to structure a collective of assemblies to make inquiries as to the possible interest of assembling an overarching advisory board to oversee the assembly of further committees to produce further initial documents leading to a draft revision of the current planning, which would...

Damn! We missed the deadline again!"

3.4

SM782

Headed for disaster whilst debating probabilities

I saw a post referring to an article based on a scientific paper on accelerated global warming that ended with the following:

“However, given historical variability in surface temperatures, it still remains too early to conclude whether or not the pace of surface warming has increased.”

This was my response:

“I think this attitude will ultimately do us in.

We’re still debating the possibility of accelerated global warming, publishing peer reviewed studies, arguing the applicable variables, statistics and probabilities. On the one hand that is a good thing. Science is a discipline of nuance, rational discourse and prudence. The scientific method forces us to follow a carefully designed checklist before we reach final conclusions (which are never really final anyway).

But this is terribly risky, because it withholds us from preparing for worst case scenarios. We act like it’s a serial process: first get all the data, reach broad consensus amongst peers, publish a paper, debate it again — and all the while

the clock is ticking. Why don't we apply the principle of parallel processing? We can investigate, debate and publish all the papers we want, whilst we prepare ourselves for those worst case scenarios.

What if we're headed for disaster already and are still debating probabilities?"

3.5

SM800

Climate change conferences cause global warming

I received an invitation to join in on a big online inaugural event about climate change/ global warming with two dozen speakers, answering a set of three questions:

1. *Is net-zero by 2050 ambitious enough?*
2. *Why aren't climate emergency declarations having the necessary impact?*
3. *How do we drive policy and systems change at scale while also protecting individual rights from government overreach and authoritarianism?*

This was my response:

“I won’t be joining your inaugural event (*) but I do have the answers to the 3 questions:

1 – Is net-zero by 2050 ambitious enough?

No, it’s not. Net-zero is a delusion, it’s a pipe dream. Here’s an idea: if we were somehow able to revert the 1% yearly population growth (which brings us from 8 to 10 billion people in 2050) into 1% yearly population decline, we would reach 6 billion people in 2050 (a good start) and 1,3 billion by the end of the

next century (the perfect number). Talking about population decline is the big taboo subject.

2 — Why aren't climate emergency declarations having the necessary impact?

I've explained that here: <https://lnkd.in/e5hsvTSc> ["The Fragmentation Problem — Why There Are No Solutions to Our Global Problems"]

3 — How do we drive policy and systems change at scale while also protecting individual rights from government overreach and authoritarianism?

You can't. Because some kind of restriction must be enforced to tackle this problem. However, there are three freedoms that prevent that from happening: freedom of speech, the free will and the free market. We regard these freedoms as inalienable rights and will fight to the death to protect them. It is the ultimate paradox: restricting the freedoms of us all and enforcing degrowth on us all. Both can't exist at the same time in this universe.

(*) This inaugural event, I'm sorry to say and with all due respect, won't change a thing. We've had 28 COPs in as many years and we have debated the issue until we were blue in the face. We have produced countless climate books, reports, analysis, peer reviewed studies, videos, podcasts, articles and posts and none of them has had any effect on the global rise of atmospheric greenhouse gas levels, average surface temperature or the Earth's energy imbalance.

Talking about it only seems to make things worse. A real cynic would yell "Eureka! I've found it!" and proudly disclose that he has just discovered the causal relationship between climate conferences and climate change: the conferences CAUSE climate change! "Check it out for yourself", he will say.

“With each conference the global atmospheric greenhouse gases, average surface temperature and the energy imbalance go up.” Then he will pause for a minute, for dramatic purposes.

He takes a deep breath and says: “And you know what? I have the perfect solution. STOP the COPs! Stop having these conferences, summits and inaugural events and all will be swell and dandy. Chop-chop!”

3.6

SM804

Can we still fix it? Yes, we can!

I was pleased to see that my post with the header ‘We should stop talking about the year 2100’ got so much attention. With 40.000 impressions and some good conversations in the comment section it made some noise, which is always satisfactory to see.

You can find the post here: https://lnkd.in/e6zqV2_3

My diagram on *The difference between linear and accelerated decline* had some impact too, requiring me to incorporate some of the answers to the questions asked (you can find V_3 in the appropriate subchapter of this book). Naturally, people are curious about solutions too, I fully understand that. So I received the following question:

“Could you (we?) create a second graph envisioning the difference between the blue line and the red line in physical phenomena and a third graph describing the actions/efforts required to move from the red line to the blue line?”

To which I replied:

“Thanks for asking. Yes, we could.

- *First we would draw up a list with the top 10 highest priority actions required to address overshoot or overconsumption, when a populating exceeds the carrying capacity of its habitat.*
- *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-programs on the national level, and sub-sub-programs on the regional level.*
- *Then we would translate all that in a detailed action plan describing the actions/efforts required to move from the red line to the blue line.*
- *To support the program 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 could do all that, no problem.

...in 1990.”

3.7

SM827

Great: another international summit; about nature this time

I saw the following post appear in my timeline:

“Big news. We’ve confirmed the date for the world’s first Global Nature Positive Summit. The summit will take place from 8-10 October [2024] in Sydney. Turning the tide on nature repair will take a global effort. That’s why we’re bringing together Governments, private sector, environmentalists and First Nations groups to work together for a nature positive future.” [sic]

This was my response:

“Great initiative. Very positive. Nature repair on the go!

I would urge you guys though, given that we have had countless of similar conferences and summits over the past half century which, apparently, didn’t have any influence of the global rise of atmospheric greenhouse gases, the average surface temperature and the Earth’s energy imbalance, to start each plenary and break out session with the following three questions:

1 – Since we have had countless of similar sessions all over the world that didn’t change any of the global warming KPI’s, WHAT are we going to do differently?

2 – HOW are we going to achieve a scale up of our ideas, initiatives and plans on global levels, across 200 countries, each with a different set of cultural, political, economic, infrastructural and historical vested interests?

3 – WHEN do we expect main global warming KPI's such as the global rise of atmospheric greenhouse gases, average surface temperature and energy imbalance to start leveling out and dropping back to safe levels? ()*

Nobody should be allowed to leave the room (or the summit) before these questions are answered and an explicitly and commonly agreed action plan can be produced. Because if you don't answer these questions, what's the point?

(*) Atmospheric CO₂-levels currently at 420 ppm, rising to 500 ppm in 2050. Safe levels are between 200 and 300 ppm. Global average surface temperature currently at +1,2C compared to preindustrial levels, rising to +2,5C in 2050. Target is +/- 0,0C. Earth's energy imbalance currently at +2,1 W/m², rising to +4,0 W/m² in 2050. Target is -1,0 W/m²"

3.8

SM828

Why the guru's statements didn't bring tears to my eyes

Some guru wrote:

"The imperial mode of living, an advanced-capitalist monoculture, is no longer viable. Economic growth itself is what is destroying the very basis of what humans need to thrive". [sic]

And:

"If we're serious about surviving our planetary crisis, then we must abandon capitalism, with its insatiable appetites. We must reject the ever-upward logic of gross domestic product, or G.D.P". [sic]

And also:

"The only way out is to abandon the goal of economic growth altogether. Less expansion would mean less regimented work. We could shorten our hours and try other kinds of jobs—elder care and child care, for instance—to fit society's needs. [...] G.D.P. would be discarded as a measure of happiness...." [sic]

This was my response:

“Hear, hear! Good read, it brought tears to my eyes.

NOT.

This is what we actually need to do, all of us, everywhere:

- 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 our collective effort to fix our existential predicament. Now let me be the advocate of the devil here. This is what we think when we read Saito’s fairytales:

- ‘What a naive idiot!’*
- ‘What should I change? Let somebody else do it’.*
- ‘I haven’t got time for this shit’.*
- ‘Good ideas! Let’s set up a committee to study it further’.*
- ‘Degrowth is for wimps!’*
- ‘Let’s just scroll on, shall we?’*
- ‘I don’t understand what the fuss is all about’.*
- ‘Must get the garbage out’.*
- ‘Mind your own business. I have free will, freedom of speech and the free market’.*

- *'F*ck off!'*
- *'I make money the way I please and buy what I want.'*
- *'Don't determine what happiness is to me!'*
- *'Can't hear you! Can't hear you!'*
- *'La-la-laaa...'*

Do I need to go on?

3.9

SM829

Just asking

A saw a post stating the following:

“The World Economic Forum recently released a report (in collaboration with Oliver Wyman) and the results are less than bleak to put it mildly. The total losses are in the tens of trillions USD, and death tolls rivaling of some of history’s deadliest plagues. [...] Can we reverse this? Or are these acceptable losses? Let me know what you think below.”

This was my response:

“Do you want (1) the political answer or (2) the real answer? Let me give you both, so you can note the difference.

(1) Yes, there are some serious problems with the environment, the biodiversity and the climate and it’s safe to say that we’re not in a particularly good place. However, it’s not too late. We can still do something. There are lots of opportunities to pick up the pace of renewables technology deployment, carbon capture and geo-engineering. We are currently investigating a variety of approaches, to be discussed in upcoming conferences and summits, in which we will strive for a consorted effort to aim for a different approach as to the ehm, issue with fossil fuels, in which various committees and subcommittees will set up national and regional task forces to integrate

constructive input from various involved parties in order to erect an oversight commission to process the...'

(2) No. It's too late. We've waited too long. We've had our chance and blew it. Collapse is now locked in.'

Which one do you prefer? And why? And what if (2) is the actual truth? Would you still bet on (1)? But why? What if we actually have passed the elbow of accelerated decline, that it is too late? What then?

Just asking.”

3.10

SM833

Being at the wrong booth

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

“How do you stop a glacier from melting? Simple — put up an underwater curtain. A 100km-long curtain moored to the Amundsen Sea bed in Antarctica could prevent catastrophic flooding elsewhere, say scientists“.

This was my response:

“If I was asked the question ‘How do you stop a glacier from melting?’ I would first:

1 — Take a deep breath.

2 — Count down 10 seconds.

3 — Look the person asking straight in the eyes.

‘Did you just ask me how you stop a glacier from melting?’

‘Yes, I did. And the answer is simple, really. We just put up an underwater curtain...’

‘Wait. Stop! You actually asked me how to stop a glacier from melting, is that right?’

'Yes, yes. And we have the solution. We just need to put up an underwater curtain into...'

'Yes, but wait. Because I want to make it absolutely clear that I heard you right. You just asked me, without blinking your eyes, how to stop a glacier from melting. Do I get that right?'

'Yes. We can put in an underwater curt...'

And then I lost my cool. I couldn't withhold the build-up of internal pressure any more.

(I apologize for what happens next.)

'Are you DAFT?! THÁT'S your solution? Underwater CURTAINS? Really? You're not kidding? Shouldn't we stop burning fossil fuels instead?'

'Aha. You want to go to the root cause of our existential problems. I see. I'm sorry. We only do symptoms fighting here. For root cause analysis you have to go to the next booth'.

'But that booth is closed permanently! How am I supposed to... Hello? Where did he go...? Hello?''

3.11

SM836

People are the mother of all fuck-ups

I saw this post floating by and I quote:

“Governments have decided against adopting a new structure for the next Intergovernmental Panel on Climate Change (IPCC) assessment cycle, committing instead to the traditional set of three “working group” reports and just one “special” report. Despite most governments agreeing on the accelerated timetable, a few countries “strenuously objected”, blocking a final decision on timelines, which will be revisited at an IPCC meeting in the summer.

One person present at the meeting tells Carbon Brief that “most of the resistance about the 2028 timeline came from Saudi Arabia, China and India”. IPCC chair Prof Jim Skea described the gathering of more than 375 delegates from 120 governments – which overran into a fifth day – as the “one of the most intense meetings” he had ever experienced.” [sic]

This was my response:

“And the hits keep on coming. We’re just adding insult to injury. I’m going to quote from my own work, if you’ll forgive me. In my 3rd book with the title *Het perfecte project – De mens als sleutel tot succes* (The Perfect Project – Why People Are the Key to Success) I make the following statement:

“Met ieder mens meer in een samenwerkingsverband neemt het aantal problemen niet lineair, maar exponentieel toe. The mens is the mother of all fuck-ups!”

(“With every person added to a collaboration, the amount of problems doesn’t increase linearly, but exponentially. People are the mother of all fuck-ups!”)

I honestly don’t believe that adding more people to these international conferences will help us in any way. There were 100.000+ people in Dubai at the COP28 and all it delivered was an end report full of creative semantics and word juggling, which is already being creatively interpreted by oil producing states. Who are we even kidding?

Now suppose, just for the sake of argument, that accelerated global warming is real, and actually happening in real time (see Hansen e.a.). Just suppose that we are, all of us, everywhere, riding the accelerated curve of decline (see comment section), which implies that we have to react in a way that outpaces the downward acceleration, and we start organizing móre huge international conferences with móre people in it.

Do you see?”

Chapter 4

Science, truth and reality

4.1

SM757

Welcome to science!

These days, in terms of visualization, we have endless ways to present data about climate change / global warming. A table works better than text, a graph works better than a table, but dynamic graphs are the best. If you want to watch, for instance, the rise of the global average surface temperature over the years, the sky is the limit. Some show the temperature rising in spirals, following the months of the year in circles representing global warming compared to preindustrial levels (0,0C – 0,5C – 1,0C – 1,5C – 2,0C) for every year from 1850 until now.

Others show a depiction of the planet Earth with its climate zones, moving from the Arctic regions via the equator to the Antarctic regions, showing the average surface temperature per zone pulsing from left to right, like a decibel indicator on a recording panel, with ‘peak hold’ and different colors, always going from a freezing cold hard blue to a steaming hot burning red. Some charts start running from the start of the Industrial Revolution, others go back

hundreds, thousands, hundreds of thousands, even millions of years, combining temperature with greenhouse gas levels. The sky is the limit.

Someone posted such a dynamic graph, but there was something missing from his message. So this is what I said in my response:

“This dynamic graphic is the best! I would like to recommend the following:

- *Play the graph. Watch is closely.*
- *Play it again. Watch it more closely. Take your time.*
- *Play if once more and pause it every once in a while.*
- *Then play it again a few times.*

Now, please, after all that, take a few minutes to answer these questions for yourself:

- 1 – *What did you see?*
- 2 – *Where do you think this is going?*
- 3 – *How do you feel now?*

PS If you think these kinds of data are flawed, manipulated, made up and if you believe:

- *In climate change but that we have got nothing to do with it*
- *Just 0,04% of CO2 is wáy too little to have an influence on anything*
- *That the climate has always changed and will always change*
- *That it was also very cold in the Middle Ages*
- *That it was also very hot in 1976*

— *That the cold spell in Scandinavia at this moment means that the winters are coming back and that the climate will be great and dandy soon*

— *That science in general and climate science in particular is just another opinion*

...then I urge you nót too look at this graph, dón't answer the questions, utter your derogatory snort and scroll on. For all others: welcome to reality. Welcome to science. Welcome to the actual facts and figures.”

4.2

SM768

Anyone got a better idea about EV's?

Somebody posted about the increase in sales of electrical vehicles (EV's) and the advanced development of battery technology, basically saying 'we should all buy EV's and everything will be swell and dandy soon'. He didn't actually say that of course, but it was the gist of the story.

This was my response:

"Maybe, just maybe, there's a fundamental flaw in your reasoning. I don't know. Let me try.

First of all: you're completely ignoring the horrific circumstances in which these rare metals are excavated, using slavery and child labor like it was still the 17th century. Secondly, I find it both fascinating and mind-boggling that, apparently, we can't think of a better idea than to replace all 1,6 billion combustion engine vehicles on Earth by electrical ones. Because it implies keeping the current transportation infrastructure intact — roads, bridges, pass-overs, tunnels, parking lots, refueling stations, power lines, maintenance facilities, car factories, maintenance for car factories, maintenance for the maintenance facilities for car factories...

Apparently we are not able to imagine a world with only a few million EV's, equipped with a public transportation system that satisfies all our needs. Apparently we can't think of another system than the neoliberal, capitalistic,

consumeristic, growth-economic free market to execute our ideas for a brave green new renewables world. Apparently we're that obtuse, ignorant, shortsighted and stupid.

We're not *Homo sapiens*, the 'wise, thinking, modern man'. We're *Homo infantilicus*.

4.3

SM778

More scientifically mind-blowing events

I saw a post referring to an article about the acceleration of ice melt in the Antarctic regions, that has taken a turn for the worst and is now braking record after record. The past years most of the focus went to the Arctic region, where global warming is up to four times as fast as the global average. But the Antarctic region is back with a vengeance. Against us.

This was my response:

“Excellent, well written, concise and succinct article. Not too long, not too technical, not too hopeful and not too gloomy. But make no mistake, it contains a dark, ominous, perhaps even sinister undertone. It might not seem so at first glance — I mean, how many people have ever visited the Antarctic region? — and it might even seem a little bit abstract and distant a subject from everyday life, but when the minds of scientists are blown, there’s something fishy going on.

When that happens, they don’t start to panic and shout that ‘we’re all DOOMED and we’re all gonna DIE!!’ Nope, scientists spit in their hands and snap to it. There’s analysis to be done! “What the heck is going on here?” they say, “Let’s do some digging and found out”. And they did. They found out. That’s what this article is all about, founding out what the heck is happening with our habitat, what the consequences are of our collective behavior.

The past year, 2023, has not only been a year of extreme weather and climate disasters washing over the planet. It is the year that we passed the elbow of the exponential curve. From here on out events will be chaotic and totally unpredictable. So, expect much more ‘scientifically mind-blowing events’.”

4.4

SM786

It is impossible to satisfy a climate change denier

No matter what you throw at them, climate change deniers always ask for more. They will ignore the buckets of evidence, truth and reality that you throw in their direction and just return fire with buckets of bullocks, false claims, half-truths, plain lies, pseudo-science, debunked conspiracy theories, quackery, ignorance, shortsightedness and sheer stupidity . But still, on my mild days, I give it a go. I send them this link...:

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

...and I ask them three questions:

1. *What do you see?*
2. *If you extend these curves over the next decade, what do you see happening?*
3. *Where do you think this is going?*

That, of course, is also completely ignored and countered by ‘Did you know it was also very cold in the Middle Ages?’, or ‘Did you know it was also very hot in 1976?’, or ‘It’s the sun, stupid!’ But what I find most fascinating about these kind of graphs is that climate change deniers look at it and still support the

hypothesis that “it’s all just a woke hoax from the leftist elite, meant to scare us shitless”.

Tell you what? Is should! It should scare us shitless. The progression of these images should scare the bejesus out of all of us, but not for the wrong reasons. We should be scared shitless NOT to:

- *Roll over and die.*
- *Take to the rooftops in our underwear and shout that we’re all DOOMED and that we’re all gonna DIE!*
- *Retreat in despair, cry out loud in agony and frustration and put on our gloomy faces all day.*

We should also NOT be scared shitless:

- *To say that ‘although the situation is very bad, it’s not too late’.*
- *To say that ‘we can still do something to fix this’.*
- *To say that ‘in order to prevent it from getting completely out of control, we need to act now!’*

Because that’s all in the past. We had our chance and blew it. We should be scared shitless TO:

- *Become collapse aware and resilient.*
- *Work less hard and free up more time to live.*
- *Appreciate what we have while we still have it.*
- *Cherish our loved ones while we still can.*

We better batten down the hatches and buckle up. The perfect storm is coming.

4.5

SM792

Having some fun with climate change deniers

There's some news out there that the climate change denialism industry has changed their tactics. First they denied it was actually happening, and now they say that the counter measures will never be effective. If it wasn't so serious, we'd all have a good laugh about. Now here's the thing: you actually can have a good laugh about it, at the expense of the climate denialism and anti-science movement. Just follow my lead.

First off: whatever shifts the climate change denialism and anti-science movement are making, the overarching modus operandus stays the same. I recently authored a few posts on the subject:

- *About climate change denialism* | <https://lnkd.in/eReAwMAZ>
- *About anti-science* | <https://lnkd.in/eVtdw4vN>
- *Debating climate change deniers* | <https://lnkd.in/eTQq8qV8>
- *Science v. anti-science* | <https://lnkd.in/e4A8nUmr>

Just remember this: the task of climate change deniers is far easier than that of climate scientists, because deniers don't have to prove that climate science is wrong, nor do they have to prove that their own assertions are right. The only thing they have to do is sow doubt. Easy peasy. Once the seeds of doubt are sown, the toxic weeds will overgrow truth and reality in a heartbeat.

Don't fall for it. Don't go down the rabbit hole with them. Don't debate them on climate change facts and figures. They love that shit and they will drag you down with them. They will throw bogus claims, dubious internet links, pseudo-science, quackery tactics and other total nonsense at you until you're completely exhausted. That's their winning strategy. And currently they are not only dominating the debate, they are winning the debate. Now, we can't have that, now can we?

So, how can we have a bit of fun with them? Here's three easy steps:

1 — Learn about their tactics.

Read the four posts I have listed above and arm yourself with knowledge about their operations. Learn about the way they debate, what makes them tick, what they think you don't know.

2 — Stop debating climate deniers about substance.

Instead, debate them on their own tactics. Just ignore whatever 'facts' they throw at you, just as they ignore every piece of science you throw at them. Throw their own tactics back at them. They really hate it. It makes their heads pop, sweat will come pouring out of every body orifice and blood will be running from their ears. It's great fun.

3 — Tell your friends about this and gang up on the climate change denialism movement.

Spread the word and learn each other these anti-denialism tactics. Gang up on the climate change deniers and keep throwing their own tactics back in their faces, push them around and shake them up a little bit. Just never ever, under no circumstance enter in a substantive debate with them. And remain civil no matter what happens.

If you stick to these rules you can have some fun with climate change deniers too. Enjoy!

4.6

SM801

Geo-engineering is not a solution

Recently I have seen an increase in articles and posts about the concept of geo-engineering or climate engineering. For more details check out this link:

https://en.m.wikipedia.org/wiki/Climate_engineering

[‘Climate Engineering’. Source: Wikipedia]

Apparently we can’t think of anything better than to technologically f*ck up our atmosphere to fix the mess we’ve made with the climate. Even contemplating such a preposterous idea is adding insult to injury. I have a better idea than geo-engineering our way out of our own mess.

If we could somehow revert the 1% yearly population growth (which brings us from the current 8 billion people to 10 billion people in 2050) into 1% yearly population 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 ideal number). The real overarching issue is 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.

Geo-engineering is not a solution. It’s fighting a sub-sub-symptom of overshoot. It’s like activating the water pumps on the Titanic, after the engineer informed the captain that ‘within hours, all of this will be at the bottom of the Atlantic. Pumps will buy you minutes, not more’. We have been

exceeding the carrying capacity of our habitat for over 70 years now. Something's gotta give. Or, to advice the captain of the sinking ship of mankind:

'Within two decades all of this will be at the bottom of Earth's history. Geo-engineering will buy you years, not more.'

(*) See also Appendix IV

4.7

SM806

What climate change deniers really hate

I saw a post stating that ‘climate change deniers are all over the internet’, referring to an article that gave a summary and update of climate change facts and figures. You know, to educate them and steer them back unto the straight and narrow. Right. Great.

This was my response:

“Although I encourage these kind of actions, I would also like to stress that there is a specific reason why the climate change denialism movement is winning the debate. Because climate change deniers have a far easier job than climate scientist. Deniers don’t have to prove that climate change is wrong, nor do they have to prove that their own assertions are right. The only thing they have to do is sow doubt.

Throwing yet another bucket of climate change facts at them won’t change a thing. They will just return fire with a bucket full of bogus claims, fake facts, pseudo-science, quackery, conspiracy theories and complete bullocks. The only thing the innocent bystander sees is the content of these buckets smeared all over the place. It creates the impression that both sides must have some merit. They don’t.

As long as we allow the climate change denialism movement to have an equal seat at the debate table, we have lost already. We. Must. Change. Tactics.”

Which elicited the following response:

“Agree to all this - but how do you want to change tactics? If you “deny them a seat at the table” then the reaction will very predictably be that you are trying to curtail free speech.”

To which I replied:

“And that’s why we’ve lost the debate already. This has nothing to do with free speech! It has everything to do with the absence of a neutral, objective, knowledgeable referee or judge at that very debate table. When we play a game of scrabble we adhere to the rules. We can’t suddenly, halfway the game, say that pet names are suddenly allowed. Same goes for sports games. You can’t yell, after you scored, that the rules for off side suddenly don’t apply to you. Look at the courts. You can’t get away with saying that you’re above the law. The judge and jury determine your sentencing according to the laws of the land.

But somehow, in a strange bizarre and ever so disconcerting way, we say we don’t need a referee or judge when we discuss (or fight over) complex issues that require science to explain and mitigate. Somehow we have come to the conclusion that fake facts, quackery, conspiracy theories and complete bullocks are equally valid. Removing that referee or judge from the debate table is perhaps the most dangerous mistake we’ve made.

Now, as to changing our tactics: STOP throwing climate change facts at them! Debate their tactics on sowing doubt. They really hate that.”

4.8

SM807

How to get under the skin of a climate change denier

Recently I wrote a post about how the climate change denialism movement operates. This is the link: <https://lnkd.in/eifp3A42>

It boils down to this:

Climate change deniers don't have to prove that climate change is wrong, nor do they have to prove that their own assertions are right. The only thing they have to do is sow doubt. I'm saying that we must fight them on their tactics. Because they really hate that.

So here's an anecdote.

I was invited to a discussion panel because of my stance on accelerating global warming. My opponent was invited because he thought the whole thing was one big exaggeration. Let's call him Mr. Crook. Mr. Crook started off with a five minute introduction, so I had a chance to study his tactics. (He was a former science journalist, now bought and paid for by the fossil fuel industry and gone rogue).

Halfway my own introduction I suddenly searched my pockets. ‘That’s strange’, I said. ‘My wallet is gone! And I believe that Mr. Crook over there stole it!’ He immediately stifled up. Then I turned to the audience.

‘Can I just do that? Accuse somebody of being a thief?’ We had a short discussion about why that is simply *nó*t the case. ‘Why not?’, I asked. ‘Because you need to prove that he did’. — ‘Aha!’, I said. ‘So what do I need then?’ — ‘EVIDENCE!’ the crowd shouted in unison (of course they didn’t, but wouldn’t that have been nice?). I finished my introduction by saying that the same goes for climate change.

From here on out, every time my opponent started to blurt something out that was fake, distorted, half true or a plain lie, I didn’t engage him on substance or details. The only thing I kept repeating was: *‘Everything Mr. Crook just said has already been debunked a million times.’*

And then I pointed out that he would just keep distracting and deceiving us, whilst sowing doubt about the actual facts. Mr. Crook was unhappy. He got annoyed, frustrated, irritated and applied the *ad hominem* approach multiple times, getting personal and all of that rubbish. But nothing worked.

He said ‘...but what has been debunked?’ — ‘Everything you just said!’ — ‘But where does it say so?’ — ‘Everywhere you haven’t looked!’ And then I explained some more about the strategy, tactics and operational moves of climate change deniers.

The poor moderator couldn’t control the debate and repeatedly asked me why I kept calling him ‘Mr. Crook’ and not by his first name. I never did. It was a

sight for sore eyes to watch Mr. Crook wrestle, wiggle, wobble and huff and puff. And a lot of fun too!

Now, if you believe that the audience was on my side, you've got another thing coming. They supported Mr. Crook all the way, because 'he is actually trying to tell us something about climate change!' That it was all a load of crap and a bunch of bullocks got lost in translation.

But I had a great time and couldn't stop smiling all the way back home.

4.9

SM812

What it's like to live in a world without a referee or judge

I was engaged in a discussion here on LinkedIn about climate change, based on recent news that global warming is actually accelerating and getting completely out of control. The comment section was inundated with polarized discussions between climate science and climate change denialism, between techno-optimists and collapse-doomers. It was ugly. At some point I noticed a comment that was almost a cry for help:

“What’s happening here? Who can we believe? I don’t trust anything or anybody anymore!”

And then it hit me. ‘This is it!’ I thought. ‘It’s happening right now, in real time, all over the place.’ I was convinced that somewhere, somebody was rubbing his hands together, doing high fives with glee whilst gloating, because this cry-out was yet another victory for the anti-science movement in general and the climate change denialism movement in particular: the seeds of doubt were sown. I wanted to shout out to the guy:

“But don’t see? There IS something and somebody you can believe and trust!”

Please allow me to explain.

When you play a game of scrabble, you adhere to the rules. You can't suddenly say that pet names are allowed. Every player will protest you. Same goes for sports games like say, soccer. You can't yell, after you scored, that the rules for off side suddenly don't apply to you. The referee will intervene. Or look at the courts. You can't get away with simply stating that you're above the law. The judge and jury determine your sentencing according to the laws of the land.

But somehow, in a strange, bizarre way, we think we don't have a referee or judge when we discuss complex issues such as environmental pollution, biodiversity loss and climate change. But we do, we have a referee and a judge: science, the scientific method and the scientific community. Removing that referee or judge from the debate table is perhaps the most dangerous mistake we can make.

The moment we say we don't trust science, or scientists, as objective, neutral knowledgeable party, we actually say we don't trust facts, evidence, truth and reality. In a world where gut feelings, fake news, half-truths, plain lies, conspiracy theories, quackery and complete and utter bullocks get to sit at the grownups table, we're instantly downgraded to adolescents in the school yard, shouting "Is not! - is too! - is not! - is too!" at each other.

In a world without science, the party with the biggest mouth and the strongest will to use force, will not only win the debate, but the elections as well. In such a world the political (extreme) right will win the biggest game of all: running the country any way they seem fit. These events are symptomatic to what's happening all over the world: the gradual elimination of rational and critical thinking, of science and the scientific method, of reason, truth and reality.

Do we actually want to live in a world like that?

4.10

SM813

Just asking why, what and when

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

“Previously, anthropogenic ecological overshoot has been identified as a fundamental cause of the myriad symptoms we see around the globe today from biodiversity loss and ocean acidification to the disturbing rise in novel entities and climate change. We seek to highlight a critical disconnect that is an ongoing societal gulf in communication between those that know, such as scientists working within limits to growth, and those members of the citizenry, largely influenced by social scientists and industry, that must act.”

This was my response:

“I think it is a good thing that the focus on our existential problems is shifting to the overarching issue of ecological overshoot (*). And it’s fine that we keep issuing ‘new papers’. But this isn’t new. It’s old wine in new bottles. Perhaps, instead of reinventing the wheel over and over again, we could actually start doing something about it? Because all this talk, all these books, reports, analysis, videos, papers and conferences that keep overflowing our senses, it doesn’t change anything in terms of the global rise of the atmospheric greenhouse gas levels, the average surface temperature and the Earth’s energy imbalance.

All these values have been going up for over 70 years now and nothing seems to be able to stop it. In fact, global warming is now accelerated towards suprasystemic collapse no matter how many 'new papers' we publish. Isn't it about time we start searching for (1) answers as to WHY that is the case, (2) WHAT we are going to do differently this time and (3) WHEN the heck we will stop sitting on our hands and start moving our butts?

Just asking.

4.11

SM815

Where do you stand on the scale between climate change denialism and doomerism?

You might not realize it, don't want to know it, or maybe even flat out deny it, but we all occupy a position on the Climate Change / Global Warming Position Scale. It's not a fixed position per se, and it may vary in time, depending on outside influence and progressive insight, but we seldomly skip more than one position in either direction. We all have a tendency to stand our ground, hold on to our belief system and defend it passionately. That is not necessarily a good thing, but it depends on what we choose as a rational, independent, neutral, objective and knowledgeable party to cross reference our own position against (position 4 below).

Let's look at the 7 positions and reconvene on the other side.

1 – Denialism

Flat out denying that climate change exists, adding that 'science is just another opinion' and that 'we're too insignificant to have any influence whatsoever'. Calling it 'a woke hoax of the leftist elite'.

2 – Skepticism

Acknowledging that we've got something to do with it, but disagreeing on the extent of that influence. Injecting conspiracy theories into the mix and saying that 'science can't explain everything'.

3 – Techno-optimism

Saying that climate change is real and dangerous, that we have a problem, threatening our very existence, but that it's not too late, that we still have time to fix it with renewables technology deployment.

4 – Science Facts and Figures

Acknowledging that science, the scientific method and the scientific community have convincingly established, through observation, research, facts and evidence, that climate change is manmade, it's everywhere and it's accelerating.

5 – Techno-Pessimism

Saying that climate change is real and dangerous, but that we're overly optimistic about the deployment of renewables technology and really need to speed things up. Expressing concerns that we might not make it to the end.

6 – Confrontealism

Stating, based on science, that we're fooling ourselves, that we've waited too long, that it is too late, that we've had our chance and blew it, that suprasystemic collapse is now locked in. Advocating collapse awareness, resilience and acceptance.

7 — *Doomerism*

Taking to the rooftops, shouting that we're all DOOMED, that we're all gonna DIE, that the end of time is near, that it doesn't matter what we do anymore and that we might as well roll over and die.

Now, the interesting question is: where do you stand? What is your position on this scale and how do you defend it?

Please note that the positions are not isolated boxes, they're like overlapping areas of thought, varying through time. It's perfectly fine to say 'I used to be a skeptic, but now I'm leaning more towards techno-optimism' or 'I used to be a techno-pessimist, but my trust in science has been restored'. Let me know where you stand in the comment section, and please, elaborate.

PS And so you know: I'm a solid 6.

4.12

SM818

Scientists debating an issue doesn't make it rubbish

I saw a post from somebody here on LinkedIn, referring to an article about the *Arctic Polar Vortex* and the ongoing discussion amongst climate scientists and other climatologists about its link to climate change / global warming. This is the link: <https://lnkd.in/eaB-n26h> ['Understanding the Arctic Polar Vortex']

The post appeared credible and trustworthy, but it was just another example of the tactics of the anti-science movement in general and the climate change denialism movement in particular: 'If the scientists are still debating the issue, it must be rubbish. If they don't know for sure, than everything must be complete bullocks'. I reposted it with my comments below, but I also post it separately here, to avoid my message being deleted on sight. That happens a lot when you fight these movements in their tactics and not engage in debate about the utter nonsense and complete bullocks they try to sell you.

This was my response:

“For all readers of [this post], who might go along with its covert tendency, the underlying current and hidden message of...:

‘See? It’s just winter, no problem whatsoever. I told you it’s not all that certain, and if they get this subject wrong, well, then everything they say must be wrong! It’s just a leftist woke hoax!’ ...or...:

‘I knew it! Science is just another opinion and by the way, scientists don’t know everything. They just want to get us scared shitless, so they can sell more books, or whatever. It’s all HUMBUG, I tell ya, HUMBUG!’ ...or...:

‘Did you know that it was also very cold in the middle ages? And that it was also very hot in 1976? And that CO₂ is good for our plants? And that it’s the sun? And that 0,04% of CO₂ in the air is far too little to have any effect on anything?’

...I recently authored a few posts about these tactics, and I quote:

“We need to understand how the anti-science movement in general and the climate change denialism movement in particular operates. This is how they work:

- 1 – About climate change denialism: <https://lnkd.in/eReAwMAZ>
- 2 – About anti-science: <https://lnkd.in/eVtdw4vN>
- 3 – Debating climate change deniers: <https://lnkd.in/eTQq8qV8>
- 4 – Science v. anti-science: <https://lnkd.in/e4A8nUmr>
- 5 – ‘The hidden strategy of the climate change denialism movement’ https://lnkd.in/eqt_p96t
- 6 – ‘I saw a post stating that climate change deniers are all over the internet’ <https://lnkd.in/eifp3A42>
- 7 – ‘Getting under the skin of a climate change denier’ <https://lnkd.in/e8UVTWtK>

Currently both movements are winning the debate. We must start fighting them on their tactics. They hate that.”

PS Climate change / global warming is never about the óne thing. It’s the abundance of evidence from a variety of scientific disciplines that make up a narrative that is scientifically valid. Whenever you are lulled into a highly detailed debate about some sub-sub-symptom of a much bigger problem, you are being distracted, deceived and bamboozled. The more time you lose going from tiny detail to tiny detail, the hotter the planet gets.”

4.13

SM830

The essence of countering climate change denialism

What do you do when a climate change denier says something like ‘0,04% of CO₂ is far too little to have any effect on anything and CO₂ is good for plant life’. You have to be real clever and persistent when dealing with such ignorance, shortsightedness and stupidity. Not by saying that exactly, but in the way you engage the denier in debate. In this particular example you can use the following counter argument:

‘If you have a blood alcohol level of 0,04% you slip into a coma. When it reaches 0,05% you die.’

Now, that’s a powerful counter argument and it’s to the point. But the thing is, you have to stay real sharp here. Because here’s what happens. The denier has just made that bogus argument about CO₂. ‘Ok’, you say. ‘Thx for sharing’. And then you give the blood alcohol level example. But the denier will try to ignore it by saying ‘By the way, it was also very cold in the Middle Ages’ or ‘Did you know it was also very hot in 1976?’

Now, it is vital that you don’t respond to that at all, but circle back to your counter argument. Stay calm, but be relentless about it. ‘No, no, no, my friend’, you say. ‘I just gave you an answer to your remark on CO₂ and you completely

ignored it. What was my argument?’ You make the denier repeat what you said. And then you ask ‘What is the point I’m trying to make here?’

The denier will now feel discomfort, maybe some irritation and try to jiggle his way out of it. He’ll say ‘Do you always talk like that?’ or ‘I don’t like the tone of your voice’ or something else untrue or irrelevant. But you relentlessly circle back to it until either one of two things will happen.

1 — The denier admits the counter argument has merit and that he was wrong. It’s rare, but sometimes it happens. In that case you use this little victory to point out that this creates precedent. Because it will reduce most of the arguments of the denier to arguments of ignorance. Now this is where you start to talk about science and the scientific method. How it works, why it is important to have conversations based on objective truth and reality, on its merits, on observation, facts and evidence.

2 — If the denier doesn’t admit he was wrong, you immediately end the conversation and walk away.

You can also counter the ‘CO₂ is good for plant life’ argument by saying that water is also good, but if you drink 6 liters of it within 10 minutes you die of water poisoning. The point of both arguments is to make the denier leave the realm of climate change denialism indoctrination and step into the world of reason, logic and reality. Just don’t spell it out. Ask ‘Now, what do I mean by that?’ and ‘What does that imply with reference to your own arguments?’

If you keep countering the endless bogus and bullocks arguments of climate change deniers with science facts and evidence, it never ends and, more importantly, you lose the debate.

4.14

SM834

Adjusting the scale of hurricane strength

I saw a post referring to several articles saying that hurricanes have now become só powerful and destructive that we need to extend the scale of categories, currently going from 1 to 5, with a category 6 hurricane.

This was my response:

“Did you know I was way ahead about this development already in September of 2017? And why limit ourselves to a category 6 hurricane? Better scale all the way up to category 10, just to be sure. In September 2023 I saw a post about hurricane development, fueled by extremely heated oceans, predicting a hurricane season of epic proportions. This is how I reacted at the time:

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

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

To be classified as a hurricane, a tropical cyclone must have maximum sustained winds of at least 74 mph (33 m/s; 64 kn; 119 km/h) (Category 1).

The highest classification in the scale, Category 5, contains storms with sustained winds exceeding 156 mph (70 m/s; 136 kn; 251 km/h).'

https://lnkd.in/e_heZ22T [Source: Wikipedia]

<https://lnkd.in/eYkCJGD8> [Hurricane Irma Puerto Rico Florida]

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

(between brackets the rounded numbers in km/h)

- | | |
|-------------------|-----------|
| 1. 119 - 153 km/h | (121-155) |
| 2. 154 - 177 km/h | (156-175) |
| 3. 178 - 209 km/h | (176-210) |
| 4. 210 - 249 km/h | (211-250) |
| 5. 250 - 282 km/h | (251-280) |
| 6. 283 - 311 km/h | (281-310) |
| 7. 312 - 341 km/h | (311-340) |
| 8. 342 - 371 km/h | (341-370) |
| 9. 372 - 400 km/h | (371-400) |
| 10. > 400 km/h | (> 401) |

In this proportionally adjusted scale, Hurricane Irma would have been designated a Category 8 Hurricane, which would have been far more befitting. In view of the fact that climate scientists already predict that hurricanes will

grow, not as much in frequency as well in strength, it seems to me that it is not more than logical that our meteorological reference frames must be adjusted accordingly.

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

Chapter 5

The climate collision

5.1

SM770

The problem with the problem of PFAS pollution

Somebody wrote a passionate post about PFAS-pollution (*). It was typically ‘written from within’, by a chemical expert that seemed to be writing for her colleagues, rather than for the general public. Apparently she wanted to persuade us to use less PFAS. Alrighty then. But what, when, why, how...? My brain was flooded with questions that weren’t answered in her post. So I shook my head and responded as follows:

“Thanks. Good read. Disturbing facts and figures. I’d like to ask you though, if I may, to be a tad more specific. Not in the science behind PFAS, but how to reach a larger audience than the ones already understanding the tech behind it and the consequences for our environment, our health and that of countless other species on this planet.

“Are you still using PFAS?” you ask. I understand the question, but most of your readers will not. “PFAS” is something abstract, because it is in ‘everything’. Explaining the acronym doesn’t help either, because most of us don’t have a degree in organic chemistry. So, could you, please, specify the kind of products that contain PFAS, referring to the day to day consumer habits of an average Earth dwelling citizen.

To be concrete: where can we find PFAS in our kitchen, living room, garage, office and factory floor, electrical or combustion engine vehicles, sport center, cinema, theatre and pub? What specific consumer and non-consumer products are you taking about? In other words: what specific products with PFAS will we encounter everywhere we go, live, work and recreate?

The problem with this problem is, that we recognize the importance, but can’t translate it to our personal lives.

Thanks.”

(* You can find more about PFAS and PFAS-pollution here:

https://en.wikipedia.org/wiki/Per- and_polyfluoroalkyl_substances

<https://www.niehs.nih.gov/health/topics/agents/pfc>

<https://www.nrdc.org/stories/forever-chemicals-called-pfas-show-your-food-clothes-and-home>

<https://www.eea.europa.eu/highlights/pfas-pollution-is-widespread-in>

<https://www.theguardian.com/environment/2023/feb/23/what-are-pfas-forever-chemicals-how-toxic-are-they-and-how-do-you-become-exposed>

https://www.cdc.gov/biomonitoring/PFAS_FactSheet.html

<https://www.ewg.org/what-are-pfas-chemicals>

<https://www.env-health.org/the-real-life-impact-of-pfas-pollution-on-communities-examples-from-veneto-antwerp-dordrecht-ronneby-and-korsor-and-how-to-take-action/>

5.2

SM779

Being stuck in a vicious global circle

Somebody wrote a post, being terribly concerned about the extreme weather and climate disasters washing over the planet in increasing frequency and intensity. It contained the following outcries:

“Look what happens! Why aren’t we waking up to reality? Why are we letting this happen?”

This was my response:

“Hear, hear! I agree. We seem to be stuck in a vicious circle that goes something like this:

(and if it may please the court, I humbly ask to allow for some leniency)

1 – We are in a bad, bad situation with the environment, biodiversity and climate and all. Shame on us!

2 – Not only is it very, very bad, we don’t seem to have any control over it and it’s actually getting worse at every turn.

3 – However! We’ve analyzed it to the bone and discussed it until we were blue in the face. We now know exactly what we need to do to fix it.

4 – So! It’s not too late, there’s still hope, there are reasons to be positively optimistic: we can still do something. Rejoice, praise be!

5 – But! We really, really, really have to get going already. We have to start now, get cracking and make it snappy. Chop-chop!

Just about any climate book analysis, report and conference follows this path. It's bizarre, because it doesn't change a thing about the global rise of atmospheric greenhouse gases, the average surface temperature and the Earth's energy imbalance."

5.3

SM785

We are running out of red hot dark red colors

The graphs that depict the state of climate change and global warming from the recent past up to this day become more impressive every day: dynamic, 3D, integrated data from multiple sources, simultaneous depiction of different variables over time, the sky is the limit.

We now have the computing power to depict the complex distribution of CO₂ across the globe, starting at the northern hemisphere and finishing at the southern atmosphere, following all seasons during a single year. Or the global average surface temperature per 'surface layer', from the Arctic to the Antarctic regions, with temperature developments per layer and with surface temperature anomalies displayed as though they were digital pop meters with 'peak hold' values in the display.

And there are brilliant 'videos' of the entire globe, displaying the average surface temperature *anomalies* compared to preindustrial levels, varying from ice cold deep blue to red hot dark red. If you press 'play', starting from, say, 1850, you can see the colors dancing and moving around, swirling, vibrating, shaking, settling in some region and becoming less blue and more red, until the entire globe turns to dark red, with only a few tiny areas still shining in pale blue. Especially the acceleration at the end makes you want to play it over and over again.

These are powerful images. Disturbing too. Abstract in a way, because we have a tendency to detach us from it, like these are images from another planet and we have nothing to do with it. We say ‘Gosh...’ and move on with our daily chores. I would urge you to play these dynamic graphs a few times and pause it at your year of birth (you can see the years progressing in the beam at the bottom or in the middle of the images). Look at the state of the world at that time and see what happens next, within your lifetime. Just contemplate that for a while.

And then answer the following questions:

- *What do you see?*
- *Where do you see this going?*
- *What does that imply for your life, work, career and leisure, for your loved ones, for the future of your offspring?*
- *Do you think we need a whole different set of coloring to paint the world for the next couple of decades?*

Let me know what you think.

5.4

SM790

When you are considered a doomer

It's inevitable. Once you've taken the stance that ecological overshoot, when a population exceeds the carrying capacity of its habitat, is going to lead to suprasystemic collapse, the end of human civilization as we know it today, you're considered a doomer. Once you're put in that court, people will start throwing links at you saying that 'Yes, we've made a mess and yes, it doesn't look good, but it's not too late, we can still fix this with technology, just you wait and see'.

So I'm inclined to respond as follows:

"Thanks for sharing. Look, I really hope that you are right, that the optimists are right. I really do. Do you think I rejoice in suprasystemic collapse? That I raise my hands to the skies and say 'Praise be, we're all gonna DIE?' It's quite simple: we just wait and see. If you are right, we'll have a rough patch for a while and after that we'll be consuming happily ever after with a global population growing to 10 billion people. If I am right, none of it matters and we will all be fighting to survive. Either way, our planet is completely indifferent about our feelings in the matter.

If the cascade failure of our living environment will *nó*t lead to suprasystemic collapse, if the oceans will *nó*t overheat, acidify and deoxygenate, if the jetstream will *nó*t meander and accelerate, if the global ocean currents will *nó*t slow down and destabilize, I'm going to be as rejoiced as the next person. I

really will. Until that time let's just wait and see. It's not like we're not going to be able to see where this is going. The symptoms of ecological overshoot are not vague or ambiguous, neither are the consequences of suprasystemic collapse.

We're either headed for a dramatic population reduction in the billions due to the crash of human civilization (my stance) or we're headed for continued population growth in the billions, with a little bit of a rough patch after which we'll all be fine and dandy (your stance). In between I see little alternatives.

I hope you are right and I'm wrong, it's as simple as that. I hope you will say to me 'You see, Bart? It was tough for a while, but we managed to get through. We fixed our shit and we're fine now. Beer?' Because that's much better than me saying 'You see, incorrigible optimist? I told you so. Now get the hell out of my way, because I don't have time for your apologies or your wining. I have to run'.

Maybe you now imagine me retreating to my prepper bunker, cursing quietly inside about '...such ignorance, shortsightedness and stupidity... grumble... stupid people... grumble... bunch a morons... grumble', rearranging my food stock and adding another heavy lock to my double steel door. You may rest assured, I'm not. I'll be watching events unfold with great acceptance and resignation, even with great interest. I'm not even going to grow a long beard and take to the roof tops in my underwear, shouting that 'I was right all along, see? Nów look what you have done!' I won't have the time, because by that time I'll be running for my life with the last of us.

5.5

SM797

They knew it all along

If you have a few minutes I'd like to show you something. It involves graphs, so please, do not scroll on yet, but bear with me and look at the first two pictures I added to this post.

The first one has been floating around the internet for quite a while now and keeps popping up. It is from 1980 and apparently it originates from one of the fossil fuel conglomerates, presumably ExxonMobil, but it might as well be Shell. Maybe somebody can help me trace the source. It is a depiction of the 'growth of atmospheric CO₂ and average global temperature increase as a function of time', predicted in 1980, so over 4 decades ago. Apparently it was updated in 2020, shown by the lines in red and blue.

Now, I've taken the liberty to update this graph once again. The point I'm going to make is not only that the fossil fuel industry knew it all along: their filthy business habits result in more emissions of CO₂ than our planet is able to compensate in its natural cycle, creating an increase of global atmospheric greenhouse gas levels and average surface temperature.

Yes, they knew it all along and covered it up! The fossil fuel industry has spent billions of dollars in their efforts to sow doubt about the causal relationship between their business model and the dire future of humankind on this planet.

The scientist who drew up this graph was employed by the fossil fuel industry. He was eager to fulfil his task and did his job as requested. Not to bring his CEO's down to their knees in shame, passionately vowing to immediately change their business model from oil, natural gas and coal to a more sustainable, renewable and green alternative. No. He was a scientist and just completed his task.

I have two additional points to make:

1 – The predictions in 1980 were scarily accurate.

2 – It has gotten worse.

This is the data:

– Global atmospheric CO₂-level rise

In 1980: 300 ppm

Predicted:

For 2023: 438 ppm

For 2050: 518 ppm

Actual in 2023: 420 ppm

Predicted for 2050: 500 ppm

(hold your horses, that's not a reason for celebration)

– Global average surface temperature rise (compared to preindustrial levels)

In 1980: 0,0C

Predicted:

For 2023: 1,1C

For 2050: 1,8C

Actual in 2023: 1,2C

Predicted for 2050: 2,5C

(that's the line that rises above all other lines in my updated version)

There's your problem! The global average surface temperature is following the rise of global atmospheric CO₂-levels, but the trend isn't linear, it's accelerating. Apparently stuffing our atmosphere full of greenhouse gases is far worse than we thought. And they (we!) knew it all along, we just didn't expect it to get so bad so fast.

They (we!) knew it all along, back in 1980 already, when we still had plenty of time to replace fossil fuels by something less harmful to our habitat. And that's why I strongly believe that we, as a species, no longer deserve the designation *Homo sapiens*, 'the wise, thinking, modern man'. We truly are *Homo infantilicus*.

5.6

SM798

The blaming game

I had a discussion with someone about ‘the filthy habits of the fossil fuel industry, leading us unto the path towards suprasystemic collapse.’ (my words). That struck my opponents nerve. He now claimed that we shouldn’t blame the fossil fuels industry that much, because we as their consumers emit far more greenhouse gases. That struck a nerve with mé.

So I responded in kind. I argued that making that assertion is like a drugs dealer saying that he can’t help that people get addicted to his product, because ‘they don’t háve to buy my product; they can just say no’. It’s like saying that *Big Pharma, Big Tobacco, Big Chemical, Big Paper, Big Law, Big Soda, Big Sugar, Big Food, Big Guns, Big Military, Big Banks, Big Cash, Big Media, Big Data, Big Tech and Big Oil, Gas and Coal* can’t be blamed for the damage they do because ‘people don’t have to buy our products and services; they can just say no’.

It forced me to enter a cliché into the discussion, which I do not prefer to do, but clichés come from truth and have only become clichés because we overused them to the point of becoming, well, ehm, a cliché. And of course, clichés are hardly original thoughts. Yet, still, I said it: ‘we’re all in this together’. My opponent uttered a derogatory snort, but I held my ground and defended the cliché.

I said that at this point in time, our problems with the environmental, biodiversity and climate are accelerating to the point of breakdown of human civilization as we know it today, which makes it kind of moronic to be still playing the blaming game. Imagine, I continued, the meager remains of human kind standing on top of the rubbles of human civilization, still pointing fingers at each other, shouting 'It's yóur fault! Is not! Is too! Is not!'

Saying that 'we're all in this together' is dangerous, because then you are drawn into endless debates about which tiny percentage of the human population possesses more wealth than that other large percentage, about inequality, that the countries that emitted the least greenhouse gases will suffer the most, about the few billionaires getting richer all the time whilst the poor are getting poorer, and so on.

All valid points. All true. And yes, we are a sad species, especially when you realize that, apparently, the best thing we can think of, under these dire global circumstances, is to start a couple of wars that painfully resemble the trench wars of WWI and the genocide of WWII. But all that is already water under the bridge. Playing the blaming game is only delaying the inevitable: that by our decades long inaction, our hands are now forced to witness the collapse of human civilization first hand. Not from the front row though. We are forced onto the stage and there's no fourth wall to flee back through.

And that's why I think we no longer deserve the designation *Homo sapiens sapiens*, 'the wise, modern, thinking man'. We truly áre *Homo infantilicus*.

<https://www.demensalsgrens.nl/our-inner-limits-addendum-v-to-viii-english/>

5.7

SM802

Our living environment is trying to tell us something

Once the Almighty Algorithm of *LinkedIn* has figured out that you are interested in the environment, biodiversity and climate, it will inundate you with relevant and less relevant knowledge and information in your timeline depending on what, how and how frequent you react to other posts on these topics. So when I received the zillionth post about the state of affairs of, in this case, accelerated global warming, accompanied by an disturbing graph, I responded in kind:

“Yep. There it is. More prove that there’s really something sinister going in here. I wonder. What is the effect of seeing these frontally confrontational graphs to the general public? What happens with the average LinkedIn-user, scrolling through endless timelines, and seeing a graph like this?

Sure, for scientists and other subject specialists, this graph speaks bundles. And sure, science adapts like myself, without being a scientist or specialist, but having studied the subject extensively, steering clearly away from pseudo-science, quackery and conspiracy theories, will recognize this graph for what it is: it’s an announcement. Our living environment is trying to tell us something.

It says:

“Listen, people of the planet Earth! I am completely indifferent about what you guys do to your own living environment. You may exceed the carrying capacity of your habitat for another 70 years for all I care. But at some point something’s gotta give. I’m already in a state of cascade failure, the precursor to suprasystemic collapse. Do you actually know what that implies? Do you actually care, about anything? By the looks of it, you really don’t.”

5.8

SM8o8

What do you see when you extrapolate the data yourself?

Somebody posted an impressive dynamic graph of the unprecedented accelerated warming of the Arctic region in temperature anomalies from 1951 to 2023, going from an icy cold blue to burning red hot.

This was my comment:

“The question I always ask to people who are either over or underwhelmed by these kind of depictions: what do you see when you extrapolate these events another decade — or two — into the future? What do you see happening?

— The climate change **denier** will say ‘The data is flawed; it will get cooler and turn blue again soon, you’ll see’.

— The climate change **doomer** will shout ‘You see?! I told you! We’re all DOOMED and we’re all going to DIE!’

— The climate change **optimist** will say ‘Yes, the situation is very bad. But it’s not too late; we can still fix this. But we really need to get going and all work together’.

— The climate **scientist** will say ‘The amount of heat pouring into the system is unprecedented. Global warming seems to be accelerating and we don’t yet understand all of the factors in play. More study is required to determine

whether it can still be mitigated, but it requires the joint effort of all governments, organizations and specialists in the world’.

Most of us, however, will see this, utter a ‘Gosh...’ or maybe even a ‘Damn! That’s a lot of red...’, but then scroll on. Get the garbage out. Pay the bills. Go to school or work or both. Worry about money, health, housing, hunger.

Tick tack tick tack...”

5.9

SM814

We have no Global Warming Impossible Mission Force

I saw an article that depicted a graph representing the amount of reduction in CO₂-emissions required to reach ‘net zero’ by 2050. It showed the overly familiar steep future decline in emissions that never, ever in the history of mankind has been achieved before. But there was something else going on with this one.

This was my response:

“Look at that graph! It’s not even been updated yet. It shows actual emissions of CO₂ of fossil fuels and land use only until 2020. It’s supposed to go down after that to reach our targets, but in 2023 we still emitted about 40 gigatons of CO₂, an all-time high and up 1,1% from 2022. In 2021 we had already completely compensated the 7% dip from the pandemic and emissions have only gone up since then.

Who are we kidding? I just don’t understand that we keep drawing these optimistic lines in graphs predicting some global miracle in emissions reductions that just isn’t happening. Based on the combined economic planning of all 200 countries of the world we will reach 46 gigaton (!) of CO₂ emissions for fossil fuels and industry including land use in 2050. Global atmospheric CO₂ levels are at 420 ppm, rising to 500 ppm in 2050. Global

atmospheric surface temperature is at 1,3C, rising to at least 2,5C in 2050. The Earth's energy imbalance is at +1,5 W/m², rising to +3,5 W/m² in 2050.

More and more scientific studies are suggesting that global warming is accelerating (Hansen e.a.) and that our models have been way too conservative to predict what is actually happening. Apparently the effects of global cloud cover and methane releases from the permafrost (to name only two) hasn't been taking into account or are drastically underestimated in the models.

So, what are we doing here? Global window dressing to avoid panic? Staying optimistic until it hits us smack in the face? Appeasing the fossil fuel industry by misinforming the crowd while carrying on as usual? This year will be even hotter than last year, when all graphs started to go berserk. And sure, the El Niño / La Niña phenomenon has a warming or cooling effect on the overall trend. And sure, next year and the year after the average global surface temperature may even go down a tad, because of the reversal effect of El Niño / La Niña.

But what do we do then? Cry victory? *“Look mum, the temperature is going down again. Praise be! All will be swell and dandy soon”*.

It's like the whole world has transformed into a state of collective delusion, where we keep drawing these future curves going down in ever steeper angles, until it represents bizarro-world. And we're doing it right now, in real time, by distributing these false graphs, these unjustly optimistic predictions that show what we must do while simply not doing it. We've had 28 climate COPs in as many years and the only thing we have to show for are end reports filled with creative semantics and word joggling. It doesn't mean anything in reality. It's vague, highly interpretable and there's no penalties at noncompliance.

Maybe that's the actual issue here. That there's no hierarchy above the level of nations. We don't have a United Nations of the World, no Global President, no Global Warming Impossible Mission Force. I just can't believe we're this stupid. Or can I?

5.10

SM817

The ultimate degrowth strategy

Here's an idea: if we were somehow able to revert the current 1% yearly global population growth (which brings us from 8 billion to 10 billion people in 2050) to a 1% yearly decline, we would reach 6 billion people in 2050 (a good start) and 1,3 billion by the end of next century (the ideal number). What do you think about that degrowth strategy?

Look, last year we added another 80 million people to the human equation and we'll be doing that for another three decades or so. All these people 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 a little bit more. It's simply unsustainable.

Environmental pollution, biodiversity loss and climate change are not core problems. They are symptoms of overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat. We've been at it for over 70 years now and something's gotta give. Something is giving. Since 1950 we have added 5,5 billion people to the human population and we just keep at it. But planet Earth says no.

"Enough is enough!"

I truly believe that most of us don't have a clue whatsoever about what's coming our way.

5.11

SM822

Would you please STOP?

Somebody wrote:

“Apocalyptic Optimism? What’s That? The term “apocalyptic optimism” dances on the tongue like a strange waltz, a counterpoint of impending doom and flickering hope. This paradoxical sentiment, however, lies at the heart of a fascinating perspective on climate change [...]. [The author], a self-proclaimed “apocalyptic optimist,” believes in humanity’s capacity to tackle this global challenge.”

This was my response:

“We still think this is a game of smart semantics.

- *That being creative with words might somehow change public opinion, or persuade politicians to change their mode of operations.*
- *That word joggling will suddenly make us see the errors of our ways, that we’ve been sinners that must repent to be forgiven.*
- *That looking for synonyms, antonyms, alliterations and pleonasm might somehow flip the coin away from destruction.*
- *That coming up with yet another definition of global warming — manmade climate change, accelerated global boiling, a runaway climate, a hothouse earth — will make us undergo a personal transformation.*

— *That producing yet another book, analysis, report or international conference about environmental pollution, biodiversity loss and climate change will magically make it go away.*

— *That appearing to be smart in theory is somehow going to make us act differently in practice.*

STOP! Please. It's obviously not working.

— *On a global scale we are NOT working the problem in unison.*

— *On a global scale we just keep making things worse.*

— *On a global scale we keep starting wars that still resemble the trench war decimation and destruction or WWI and the abhorrent genocide of WWII.*

STOP! Please.”

5.12

SM837

Carbon capture is a delusion, a pipedream

I saw a list with a picture of a lady standing in front of an installation representing the volume of 1 ton of atmospheric CO₂. It read:

“Behind me you can see the volume of 1 tonne of CO₂ at atmospheric pressure. It’s enormous. In a few hours long flight, we can often emit that amount (per passenger!!). However, to remove that much CO₂ from the atmosphere for example, with #DACCS (direct air capture and storage), you need to pump that much air 35,000 (thirty five thousand) times through a 20% efficient device (21,000 if you are 33% efficient, which we are still a long way from).”
[sic]

This was my response:

“Good read. Now, based on the estimated height of the lady in front of this cube (1,75 m) and attempting to compensate for the distortion of the wide angle lens used, I estimate this cube to be 7x7x7 meters, or 343 m³. Currently, global CO₂-emissions are at 37 gigaton yearly (a gigaton is 1 billion tons), so we emit 100 million tons of CO₂ of fossil fuels and industry into the atmosphere every day!

We would have to remove 100.000.000 times 343 cubic meters = 34 billion cubic meters of CO₂ each and every day to keep up the pace. But, apparently, we’d have to pump that much air through a 20% efficient device 35.000 times,

which equals an air volume of 35.000 x 34 billion = 1,2 million times a billion cubic meters of air. But that's just for one day of emissions. To remove our yearly CO₂-emissions of 37 gigatons we'd have to process 4,4 times 10 to the 17th cubic meters of air (440.000.000.000.000.000 m³).

And that's only our yearly additional emissions. To date, cumulative CO₂-emissions are at 1.500 gigatons. CO₂ stays airborne for thousands of years. We need to get every molecule out to reduce current global atmospheric CO₂-levels from 420 ppm to safe levels below preindustrial levels of 280 ppm.

Carbon capture is a delusion, a pipedream.”

5.13

SM839

The vulnerability of floating solar parks

I saw a post with a picture of gigantic floating solar parks in Indonesia. I had mixed feelings about that. This was my response:

“Someday we will realize that most of our infrastructure is above ground, subject to the whims of our atmosphere, which is heated up by our filthy habits. Power lines, power stations, carbon capture facilities, oil rigs, gas plants, coal factories, electrical grids, wind mills, solar parks (floating or not) — they are all subject to the consequences of manmade climate change/ accelerated global warming.

One big hailstorm can annihilate an entire solar park, one extreme storm cell can knock a floating solar park of its restraints and slam it into the water front, one hurricane can level an entire power grid, or a windmill farm, one extended flooding with landslides can wipe away the infrastructure of an entire town.

Now, under ‘normal’ circumstances, say ‘pre-1990’, we could easily calculate the risks, based on ‘once every 10, 100, 1000 years events’ and base the insurance premiums on those odds. But what if we live in a world where extreme weather events and climate disasters increase in frequency and intensity, and accelerate? What if we have to take into consideration that the risks are now of ‘once every year - month - week - day - events’? How long before we can’t afford to repair/ replace our infrastructure anymore?”

5.14

SM840

When a graph passes you by

Because I'm interested in manmade climate change/ accelerated global warming and authored over 800 posts about it since the publication of my 6th book in December 2022, the Almighty Algorithm of *LinkedIn* has of course detected that and now feeds me with nothing but news on the matter.

Since I am not a climate change denier, the posts I am seeing are mostly science based and authored by both scientists and non-scientists (if I might be so bold to divide the entire human population in only those two categories). But I wonder though, what happens to the average *LinkedIn* dweller, coming across this particular message about the 'global 2-meter air temperature: 1940-2024'-graph, that shows the continuation of unprecedented global temperature rise, breaking record after record.

If you are a climate scientist, you know what this means. Maybe it scares the bejesus out of you and you share that concern with others, upholding the natural nuanced, balanced and dignified stance of a scientist: 'don't assume, don't speculate, don't panic, stick to the facts, follow the evidence and don't exaggerate the issue'. But if you're just the average Earth-dwelling citizen, having to go to work, pay the bills, get the garbage out, worry about debt, health, money and where to go on holiday next year, this graph just might pass you by altogether.

5.15

SM843

That clock is ticking the wrong way

I saw a post reading the following:

“Leaving my final meeting of the day, I headed to the subway, walking by Union Square in Manhattan. Looking up, I realized I had forgotten about the Climate Clock, an installation that since September 2020 has sought to remind us that we will reach a point – captured by the countdown clock – beyond which climate impacts are irreversible.”

The clock read:

-/- 05 YRS 164 DAYS 18:55:24

I reacted as follows:

“This clock is wrong!

We have already passed the point beyond which climate impacts are irreversible. That point was March/April of 2023, when the global average sea surface temperatures started to move outside the box and off the charts in giant leaps. All statistics went off the charts after that.

The clock should therefore indicate ‘positive time’, the count-UP from that point of no return.

Putting the moment we passed the point of no return on April 1st (fool's day indeed) 2023 at 00:00:00 (I'm being as idiotically accurate as any such clock is) and based on the log time of this comment, 9th of February 2024, 09:45:24 hrs EST, the clock should have read:

+/+ 00 YRS 315 DAYS 09:45:24

But either way, displaying such a clock is as moronic as appointing a 'remaining carbon budget' to ourselves, or thinking that carbon capture in any way, shape or form is a realistic and practical way to suck 37 gigatons of yearly CO₂-emissions and 1.500 gigatons of cumulative CO₂-emissions out of our atmosphere, or thinking that renewables technology deployment is going to save us, (praise be!), or claiming that it is smart to replace all 1,6 billion combustion engine vehicles on Earth by electrical ones.

Tick-tack tick-tack tick tack..."

Chapter 6

The collapse

6.1

SM773

If our oceans die, we die with them

The news about our oceans overheating, acidifying and deoxygenating is increasing, and the graphs following the yearly trend of ocean surface temperature are off the charts. It started in the spring of 2023 and it has been getting worse ever since. It doesn't match our models and it worries the scientists deeply. What has caused this sudden increase in temperature and what are the effects on the short term?

So when I saw a post passing by, referring to a graph that predicted the state of our oceans by the year 2100, I was intrigued. 2100? 76 years from now? In this temp?

This was my response:

“Disturbing news indeed. But I find it fascinating that we still predict the unraveling of events here on this planet up and until 2100. Like we're going to

be able to see global warming accelerate, and still make some solid observation about the damage it will do. In a sort of abstract and absurd way it's sweet that we think we will be observers on the sidelines, with our white coats and note pads, watching everything unfold with great interest. Here's professor Jones talking to professor Peterson:

- *Prof. Jones: "Look, my dear colleague, how the oceans have now overheated, acidified and deoxygenated up to the point that organic life is no longer possible".*
- *Prof Peterson: "Yes, I see. Fascinating. And have you seen the devastating effects of the jetstream meandering and accelerating? That packs a punch in terms of accelerated destruction".*
- *Prof. Jones: "Yes, it does. And have you also noticed that the global ocean currents are slowing down and destabilizing, which completely messes up weather patterns and the distribution of hot and cold air flows?"*
- *Prof Peterson: "I have. I never thought we could pump so much greenhouse gasses into the atmosphere that it would render complete regions uninhabitable".*
- *Prof. Jones: "Let's make a note to that effect in our log".*

In this tempo we won't make it to 2050, let alone 2100. If our oceans die, we die with them.

6.2

SM781

When suprasystemic collapse pokes you in the back it's too late

I received an invitation to buy a book. It was just released and it was received with a lot of enthusiasm from the techno-optimistic community. It described our existential predicament, you know, with the environmental pollution, biodiversity loss and climate change getting out of control, but that we were going to solve everything – praise be – with the ‘accelerated global deployment of renewables technology’. Electrical vehicles, batteries, wind and solar to the rescue. ‘Just sit tight and you’ll see, it’s all going to be swell and dandy!’

This was my response:

“Ok, let’s go with this. First off: I want this to be true. It sounds great: technology is finally going to save us. Praise be! I can’t wait to enter this Brave New Green World where we can grow to 10 billion people and consume and live happily ever after. Really. I want to believe this. I want to be dead wrong with my posts about collapse awareness and resilience. I really want to. So, let’s put this to the test. Not to be pissing on anyone’s parade, but to keep us frosty and alert. Here we go.

In 2017 the book ‘Drawdown’ by Paul Hawken e.a. was published:

“The most comprehensive plan ever proposed to reverse global warming”.

<https://drawdown.org/the-book>

Sounds good, right? This thick, shiny book contains close to one hundred ‘ready-to-go’ subprojects to make the transformation to a sustainable planet, including financial breakdown and everything.

Here are my questions:

- *Why hasn’t this been all over the news over the past six years?*
- *Why don’t we see any results from these projects on a global scale?*
- *Why didn’t this book make a difference?*
- *What is ‘Not the End of the World’ going to do differently?*

There are a zillion similar books to which I can ask the same questions. Does anyone care to answer?”

This post stirred up quite some emotions. A long and emotional discussion followed in the comment section between techno-optimists and techno-pessimists, between skeptics and confrontationalists, between climate change deniers and climate change doomers. Everyone seem to have something to say and even the participants in the *Drawdown Project* protested fiercely against my post, as if I had completely downgraded their project. I had not. I even refer to *Drawdown* in my book *Our Inner Limits* as one of the many well-founded and constructive initiatives to combat climate change.

Apparently they missed the point completely. It wasn’t about *their* book specifically. My post was about *all* the books, reports, analysis and conferences that we produced over the past half century of which none has changed

anything about the global rise of atmospheric greenhouse gas levels, average surface temperature and the Earth's energy imbalance.

We're so busy-busy-busy with our own individual, local, regional and national improvement and transformation initiatives, that we simply forget to coordinate and consolidate on a global level. It's like we're all looking at the bigger picture through our own key holes, photo tele lenses and microscopes. At some point, somebody or something has to come along to poke us in the back or slap us on the shoulders, to make us snap out of it. If that somebody is a colleague, consider yourself lucky. If that something is suprasystemic collapse, it is too late.

6.3

SM787

Binge-watching the apocalypse is a bad idea

Do you know what the French word *L'effondrement* stands for? It means “the collapse”. Don’t you love the French? They make such a terrible thing as ‘collapse’ sound like it’s an ingredient to some fancy dish or an instruction you must follow if you want to participate in a musical.

If you follow me here on *LinkedIn* you see me post a lot about ‘suprasystemic collapse’, a fancy combination of words that simply means ‘the crash of human civilization as we know it today’. With the suprasystem I refer to planet Earth with its 8 billion specimen of the species *Homo sapiens*, ‘the wise, thinking, modern man’.

When a population exceeds the carrying capacity of its habit for too long, collapse will follow; it’s a law of nature. The concept is known as overshoot or overconsumption. Collapse has now become inevitable even for us, the human species. And nature, our planet and the cosmos for that matter, are completely indifferent about our feelings about it.

But collapse is an abstract concept. We might have observed it in the wild a few times, when it happens to other species, but it never happened to us. We have no experience with it, at least not for humankind as a whole. Up until now. Our vitosphere, the joint venture between atmosphere, biosphere, lithosphere,

hydrosphere and cryosphere, has entered a state of cascade failure, the precursor to suprasystemic collapse. It might not seem that way — you can still crawl under a big rock, cover your eyes and ears and shout “Can’t here you! Can’t see you!” — but that doesn’t mean it isn’t happening or that it will go away quietly.

So, in that context, I would urge you, kindly, to watch the French mini-series *L’effondrement* (“The Collapse”) as soon as you can. It’s an extremely realistic depiction of what happens when human civilization collapses, from the common person to the ultra-rich. Shot in one long seamless take per episode, it tells it to you like it is, without the Hollywood hysteria or CGI hyperbolics. It’s confrontational, it’s brutal, it’s ugly, because that is the signature of collapse.

Be careful to not binge-watch all episodes, as I did. Because this mini-series grabs you by the throat and leaves you speechless for a while. In fact, I still haven’t shaken it off.

6.4

SM791

Our civilization has a lifespan of just 10 days

Our global food supply chain consists of a 7x24 hours running intricate network of carefully fine-tuned demand and supply processes that stock our supermarkets. That's where you go, weekly or daily, to buy food to stay alive. Now, suppose that you are a buyer and that some country, supplying a particular kind of food, has some major natural disaster (prolonged drought and heatwaves, extreme downpours and floodings, storms and hurricanes) and can't deliver any more. What do you do? You go for your 2nd choice supplier somewhere else. Might be more expensive and of lower quality, but you just raise consumer prices to compensate.

Now imagine these 'natural disasters' starting to occur every year, season, month, week, day. You know, because of climate change and accelerated global warming and all. Every buyer on Earth will go to their 2nd, 3rd, 4th rate suppliers to keep up with demand, because consumers hate empty shelves. We just can't live without our 17 different varieties of peanut butter.

Such a parallel occurring logistical event — 'all at once, everywhere' — will suck the global food supply chain dry in a heartbeat, with the rich nations upfront to claim the last stock, with force if necessary (we fight for water and food even before we fight for territory). It will feel quite similar to the consequences of a meteorite strike, without the immediate devastation and destruction.

Then, when our supermarkets suddenly run dry too, everybody has the same problem, everywhere, all at once. And when we and our families are under threat, we WILL turn on each other. After only ten days (when our food and water has run out, all supermarkets and gas stations are plundered and the supply of electricity and natural gas fails permanently) our societies will start to breakdown. Our civilization will follow soon after.

That's what suprasystemic collapse looks like. Its ruthless. It's ugly. And it's completely indifferent about our feelings on the matter. Boohoo!

6.5

SM793

Debating the reality of global warming after the point of no return

When the jetstream meanders and accelerates, when the oceans overheat, acidify and deoxygenate, when the global ocean currents slow down and destabilize, that doesn't mean that we still have time to debate whether global warming is real or not. Those are the Main Management and Control Systems of our planet. There is no on/off switch, no reset button, no edit/undo function.

When our living environment the joint venture of atmosphere, biosphere, lithosphere, hydrosphere and cryosphere, enters a state of cascade failure, the precursor to suprasystemic collapse, there's no way back. And you know what? Our habitat has already entered that state. We have passed the elbow of the exponential curve. That means that from here on out events won't follow a relatively linear path forward, but an accelerated, chaotic and totally unpredictable one.

Now imagine it gets so bad with extreme weather and climate disasters wreaking havoc to our infrastructure, that even the fossil fuel industry and their almighty conglomerates start scratching their heads. Imagine that the world leaders, the custodians of the 200 countries in the world, who were so supportive of eternal economic growth, thus enabling the fossil fuel industry

to continue their filthy habits, start scratching their heads too. Imagin them saying:

'Jeez, what's going on with the weather? Why is it everywhere? And why doesn't it let up? It's now wreaking havoc to the economy, the infrastructure, to prosperity and wellbeing. Is it real? Is climate change real? Does global warming exist after all? Are we really doing it ourselves? Damn. That's some serious shit. Maybe we should change, huh? Would that be something?'

Do you think by then we can just shut the system down? Hit that reset button? Activate the edit/undo function? Debating the reality of global warming is moronic once you pass the point of no return.

6.6

SM799

When you can no longer reset your life

Warning: this post contains anxieties, worries and subsequent contemplations about our existential predicament, so feel free to scroll on. But wait! If you love video games, maybe you should hang on. Why don't you give it a try? See what happens.

If you follow me here on LinkedIn you know that I am not exactly hopeful or cheerful about our future. On the one hand I am passionate about the species *Homo sapiens sapiens*, 'the wise, thinking, modern man', (that's us!), with our collaboration and communication skills, empathy, altruism, our arts, literature, poetry, music and our ability to overcome great obstacles.

On the other hand — and that hand is tipping the scale — I am deeply concerned about what we're doing to the environment, biodiversity and climate. Because if we keep it up, we're going to experience something we've got no experience with: the collapse of human civilization, all at once, everywhere.

Now to my point.

The past few weeks I have seen some disturbing news. Apparently the Arctic and Antarctic regions are losing ice faster, the permafrost is thawing faster, atmospheric humidity is not equally distributed, the jetstream is meandering and accelerating faster, the global average surface temperature is rising faster,

the oceans are overheating, acidifying and deoxygenating faster — than previously understood.

...than previously understood.

That concept is known as ‘progressive insight’, but by now I would rather like to call it ‘insight in hindsight’. Apparently it is not our models that are flawed, but we have been hesitant to feed them with ‘worst case scenario data’ on accelerated ice melt, permafrost thaw, water vapor distribution and the like. Now, finally, to my point about video games (and I salute you if you kept up with the story until now).

If you are playing a shooting or war game, you can play with your life endlessly. You have access to endless amounts of ammunition and endless amounts of lives. Shot in the chest? Reset! Head ripped off by a grenade? Reload! Stepped onto a landmine and blown to pieces? Add more lives. All the while you learn something more about your surroundings and objective and you get a little bit further into the game. If you keep it up long enough, maybe you’ll even reach the end and declare yourself victorious.

Now imagine you’re in that same game, and you’ve had multiple chances to navigate yourself through the maze of enemies, guns, tanks, grenades and landmines. And then, all over sudden, you only have one life left. Your life. The only life you’ve got. Now what? You’ve made a mess, passionately killing people and destroying property along the way, you’re in the middle of the game, nowhere near the end objective and you’ve got only one life left. One!

If you're shot in the head now, it's over. Not game over, but your brains all over. What do you think will happen to your passion to move forward and kill and destroy some more? Do you see?

6.7

SM803

We should stop talking about the year 2100

I keep seeing these future predictions on the economy and ecology that stretch all the way up to the end of the century, the magical year 2100. That the GWP will take a hit of X%, that extreme heat will destroy Y% of crops and that climate disasters will cause death to Z% of the human population. Or: that renewables technology will provide A% of the global energy demand, that B% of us will drive an EV and that wind and solar prices will drop another C%.

We really should stop doing that, talking about the year 2100 as if current developments are going to continue in some kind of a gradual, linear, stable path towards the future. Please look at the graph below. It contains 5 distinct zones:

1 – The Safe Zone

2 – The Transition Zone

3 – The Cascade Failure Zone

4 – The Pre-Collapse Zone

5 – The Collapse Zone

As you can see, I have drawn two lines, one linear, one accelerating. Both lines are going down, describing two completely different worlds of perception.

- *The observer riding the straight line remains optimistic about the future all the way up to the year 2100. That is Phantasy Land. Those are the economists and all other optimists of the world thinking there will still be an economy to observe, no matter what we do to the ecology, like they are disconnected somehow.*
- *The observer riding the downward curve, strangely enough, remains equally optimistic almost all the way down. Those are the same economists and optimists of the world, but they aren't in Phantasy Land any more. They are entering the real world at high speed towards a new equilibrium.*

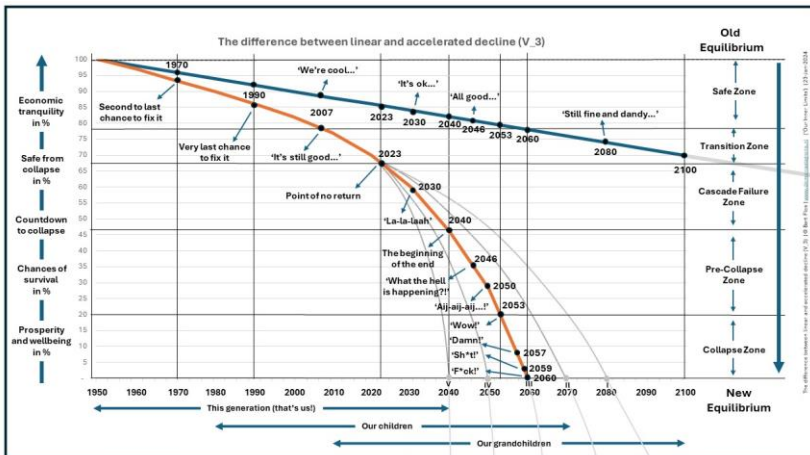
On the horizontal axis I have added three generations: us (1950-2040), our children (1980-2070) and our grandchildren (2010-2100). It's always good to be aware of the things that lie ahead. I have also included an error margin, depicting five possible scenario's depending on the angle of descent of the accelerated curve, 'ending' in 2080, 2070, 2060, 2050, and 2040. It is important to note that progressive insight dictates that scenario's I (2080) and II (2070) have become far less likely than scenario's IV (2070) and V (2040). Even the 'middle ground scenario (2060) has become less likely by now. It just shows how fast things are moving.

Now, so you know, this is not some crazy idea or novel notion that I'm sharing with you. The amount of reporting on accelerated global warming is increasing fast. Scientists are not only scratching their heads, they are extremely worried that manmade climate change is getting out of hand, that global warming is accelerating to the point of a 'runaway climate', leading to a 'hothouse earth', wreaking havoc on human civilization.

Do you think this is fearmongering? That I'm just rattling your cage for the fun of it? Look closely at the downward curve again. I'm not predicting the future, I'm extrapolating the data. And based on that knowledge:

- 1 – We have already entered the Cascade Failure Zone. That happened last year. It's our point of no return; collapse is now locked in.
- 2 – We will enter the Pre-Collapse Zone around 2040, the beginning of the end.
- 3 – When we increase speed even more, falling down towards the Collapse Zone, we will probably still be denying what's happening.
- 4 – We will enter the Collapse Zone somewhere around 2050, plummeting towards suprasystemic collapse somewhere around 2060.

By that time we will be in total chaos and panic, whilst our habitat seeks that new equilibrium. And our living environment, planet Earth, will be utterly indifferent about our feelings on the matter, all the bloody accelerated way down.



6.8

SM809

Explaining a bit more about accelerated decline

With over 40.000 impressions I've created quite the stir with my recent post about why we should stop talking about the year 2100: https://lnkd.in/e6zqV2_3 ['On the difference between linear and accelerated decline']

First off: the diagram is my overall representation of suprasystemic collapse. I'm extrapolating the data based on the abundance of evidence of overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat. It's one curve downwards, based on what we have been doing to the environment, biodiversity and climate for over 70 years now. So, I'm extrapolating all the available data, all at once.

2023 is the year when our living environment entered a state of cascade failure. That's why I call that 'the point of no return'. Collapse is now locked into the system. I've chosen 2023 because it took the science community aback. The last thing you want to see is a scientist saying "*What the h...?!?*"

That's like watching the stewardess on a bumpy intercontinental flight. As long as they still serve drinks and smiles, everything is swell and dandy. But when they run past you with a terrified look on their face, ignoring your questions and hastily buckling up, you'd better buckle up yourself, put your head between

your knees and brace for impact. That's what happens when an ever growing population keeps exceeding the carrying capacity of its habitat.

It's like draining a bath tub. When you remove the plug, at first hardly anything happens. You can't even see the water level dropping. The entire system stays that way for quite a long time, slowly but surely moving along its trajectory. That's the relatively horizontal part of the downward curve. Now watch what happens when the water level hits the last few centimeters. Look what the system does in its final moments, before you hear the loud 'reversed slurp' of the drain. That is the almost vertical part of the downward curve: suprasystemic collapse.

The typical thing with an accelerating curve is that it lulls you into a false sense of security at first, when it is almost a flat line. All the underlying mechanisms and processes are already at play, but we don't see it yet, we don't feel it yet. The typical attribute of an accelerated downward curve is that it contains no angles or hooks. It just bends in a smooth curve, moving faster downhill, but not like a staircase. There are no hard stops or angles. When the process starts to accelerate, you can only stop it with a force that is equal or greater than the force that causes the downward spiral.

It's like walking down a steep hill. At first you walk, then you trot, then you gallop, then you start running out of control. At that point the only thing that can stop you is a crash. Now, when I say that collapse is locked into the system, I'm saying we are already running out of control. The only thing that can stop us now, is a crash.

That, my friends, is suprasystemic collapse.

6.9

SM810

Even when our civilization breaks down, there's still a lot we can do

Those who follow and/or read me here on LinkedIn, know where I stand on the topics of environmental pollution, biodiversity loss and climate change, the symptoms of overshoot or overconsumption (*). When I cast these dire predictions, that we're beyond the point of no return and that we've passed the elbow of the exponential curve, I'm just saying that about our societies at large, about the human species in its entirety.

So yes, collapse is now locked into the system. There's nothing more we can do about that, because we've waited too long, it's too late. We've had our chance and blew it. But I'm not suggesting that we just roll over and die. This is what I suggest we do instead:

1 – Work less if you can. Work less hard. Stop dragging dead horses. Make up more free time.

2 – Stop buying more stuff. Enjoy what you have while you still have it. Get rid of the stuff you no longer need. Free up some space.

3 – Stop growing your career or your business. Enough is enough. No more economic growth. Downside if you can.

4 – Cherish your loved ones while they're still there. Spend more time with them. Tell them you love them. Enjoy the loudness and the silence together.

5 – *When engaging in discourse with others, listen more, talk less. Hear what other people are saying, be empathetic, even if you don't relate to the topic. Compliment more, critic less.*

6 – *Remove jealousy, anger and aggression from your life. Completely. Stay calm whatever happens. Don't judge.*

7 – *Be nice to other animals, as though they were family. Not just your own pets, all animals, everywhere.*

8 – *Become more collapse aware and resilient. Study the concept. Accept collapse without panic, but be prepared for it, at least mentally.*

9 – *When the shit hits the fan, and you live in a big city, get the hell out of there. If you stay, you will get mugged, robbed or injured. If you stay, you die.*

10 – *If you are planning to relocate, move away from crowded areas, shores, river beds, forests, the equator. Move up north, as close to the pole circle as you can get. Stay clear of 'friendly outsiders'. They covet what you possess.*

A Dutch expression goes 'a forewarned man counts for ten'. I find that a tad misogynistic. It would rather say:

'If you want to avoid me saying "I told you so" start preparing for collapse now'.

(*) See also Appendix IV

6.10

SM831

What we somehow seem to believe

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

“No one wants to be right about this’: climate scientists’ horror and exasperation as global predictions play out”

This was my response:

“Just so you know, the article in *The Guardian* is from July 2023, so already 6 months old, which is, from an accelerated global warming point of view, ancient. It hasn’t exactly gotten any better since then.

I recently created quite the stir with this post: https://lnkd.in/e6zqV2_3 [‘We should stop talking about the year 2100 — On the difference between linear and accelerated decline’]. We don’t seem to have a clue where this is going. Somehow we believe that this will all magically go away at some point, when we start to accelerate the deployment of renewables technology. That we have to hold on for just a little bit longer until greenhouse emissions peak, EV sales pick up, solar and wind cost drop even further and battery technology gets even better.

And then, and some point, we seem to think, the sky will suddenly clear up and the sun will shine again. ‘No harm done!’ Somehow we seem to believe that:

- *Throwing technology at our problems will make the global rise of atmospheric greenhouse gas levels, average surface temperature and the Earth's energy imbalance suddenly start to plateau and subsequently drop below safe levels.*
- *We can just push the on/off switch, hit the reset button or execute the edit/undo function of our planet when the jetstream is meandering and accelerating, when the oceans are overheating, acidifying and deoxygenating and when the global ocean currents are destabilizing and slowing down.*
- *If we just keep organizing international conferences and summits on the environment, biodiversity and climate, talking about it until we're blue in the face without holding each other to account, all of our existential problems will magically go away.*
- *Using terminology such as 'carbon budgets' and 'direct air capture' and 'geo-engineering' and 'peek emissions' and 'accelerated advanced renewables technology deployment' makes us smart and techno-savvy and on top of the world, fully in control of our faculties.*
- *Starting a couple of wars that most resemble the trench war atrocities of WWI and the reprehensible genocide of WWII, destroying lives, properties and infrastructure on unimaginable scale, is a smart and wise thing to do.*
- *Sowing doubt and spreading lies about science in general and climate change/ global warming in particular somehow makes us more intelligent, more insightful and more knowledgeable.*
- *Indoctrinating 2 billion people to vote for a(n) (extreme) right political movement of which the demagogue/ autocrat/ dictator only cares about absolute power and immunity while, to add insult to injury, vehemently denying that climate change and global warming even exist.*

Somehow we seem to believe that both of these worlds can exist at the same time and within the same space. I just can't believe we're this obtuse.

6.11

SM832

This is why you won't 'fight' climate change

This is a provocative post. It's going to say stuff that you don't agree with, that you don't recognize or that you don't understand. It is meant to be like that. I want to provoke you, rattle your cage and ruffle up your feathers. When I talk about 'you' in this post, I'm not talking about you specifically. I'm sure you think you are a fine specimen of the species *Homo sapiens*, 'the wise, thinking, modern man' and I congratulate you with it.

No, when I use 'you' (or 'your') I mean 'we', and when I use 'we' (or 'us') I mean the entire human species, 'we in general', all 8 billion of us and counting. I'm going to give you a list of reasons why you are not going to do anything meaningful about climate change, biodiversity loss and environmental pollution. It will be a list that explains that we are too late, that we have waited too long and that our system is going to crash. Yes, suprasystemic collapse, the downfall of human civilization is now locked in.

Ready? Here we go. This is what 'you' are not going to do to save 'us':

- *Voluntarily accept an income cut of 20% and turn in 50% of your savings. Stop advancing your career.*
- *Stop doing overtime, running from meeting to meeting, stressing over details, being so busy, working your butt off.*

- *Stop growing your business, stop increasing your turnover and stop hiring more people. Start advocating economic decline.*
- *Stop buying stuff online, stop buying stuff you don't need and start throwing stuff away you don't use.*

- *Reduce your gadgets to one smartphone and laptop per person and one flatscreen tv per household. Don't replace them unless they are beyond economic repair.*
- *Stop flying for your holidays. Stop going abroad all together. Have your holidays in your own country. Rediscover your own land.*
- *Stop going on cruises.*
- *Stop renovating your house unless it's absolutely necessary. Stop buying other houses. Stop buying more land.*

- *Stop buying stock, shares, bitcoins. Stop going short or long. Stop buying your own stock to satisfy shareholder needs.*
- *Stop buying a new car unless it's beyond economic repair. Stop having more than one car. Stop coveting cars.*
- *Stop going out to restaurants, bars, dancing's. Take long walks in the woods instead. Stay home and play board games.*
- *Stop striving to be rich, or richer than you are now, or wealthier or more powerful.*

- *Stop having (more) children.*
- *Stop pretending that you care about other people in strange countries far, far away, with different cultures and customs.*
- *Stop worrying about other people coming to take over your country to destroy it. (They're not).*

— *Stop coveting and craving what others have. Stop being jealous. Stop being immature unless you're a child.*

There you go. That's the list. It's far from complete, but it'll do for now. Now, please, I beg you, don't ask me if I actually have stopped doing all these things.

I am just like 'you', remember? I got the following comment:

"The biggest lie that people tell you is that your individual actions matter, the only thing that matters is your individual action that support collective actions. So your list is useless, instead 1. Educate yourself 2. Speak up, friend, family and loved ones 3. Vote for Green politicians 4. Join a movement 5. Become and activist" [sic]

This was my response:

"I'm afraid, with all due respect, you've missed my point completely. Let me add a few more to my list to make you understand what I am saying and why suprasystemic collapse has now become inevitable. This is what 'you' are not going to do to save 'us':

— *Start to educate yourself and conduct a serious investigation into the scientific underpinnings of manmade climate change and accelerated global warming (we don't care about science).*

— *Start to talk to your friends, family and loved ones about our existential predicament with the environment, biodiversity and climate (we want to keep things simple, nice and cozy).*

— *Stop voting for a(n) extreme right political movement that will install a demagogue/ dictator/ autocrat who vehemently denies climate change even exists and cares only about absolute power and immunity (2 billion people will vote that way this year).*

— *Stop attending protests in the streets that will only temporarily create a sense of solidarity until everybody needs to go home to eat, work, go to school and pay the bills.*

— *Stop becoming part of an activist movement that doesn't have the ability to truly scale up to global levels.*

Do you see?

PS 'The smartest thing the devil ever did was to convince us that he doesn't exist'.

6.12

SM841

What would happen if we all had an epiphany about climate change?

A thought experiment

I'd like to take you on a little journey in time, into the future, based on history. I'm not going to talk about the distant future or the distant past, but just 6 years into the future.

(This is a thought experiment, so I'm going to predict the future, which is always refuted with the emotional response 'nobody can predict the future!' to which I reply in kind: 'I'm not predicting the future; I'm just extrapolating the data'.)

It is February 2030, and the global human population has grown to 8,6 billion people. The 365-day mean average global surface temperature has passed the 1,8C marker and the average sea surface temperature has risen to 22C. The global atmospheric CO₂-level has reached 435 ppm and the Earth's energy imbalance has passed the 1,7 W/m² marker.

Prolonged droughts and heatwaves are causing catastrophic forest fires in South America, Central Africa, California, Canada, Australia and Siberia. At the same time, storms, hurricanes, downpours, floods and landslides caused by atmospheric rivers are destroying properties and infrastructure at

unprecedented scale all over the planet. Heatwaves persist for weeks, with maximum temperatures exceeding 50C in almost every region of the world. Deadly wet bulb temperatures over 35C are now killing hundreds of thousands of people all over the Asia Pacific region.

The melting of ice in the Arctic and Antarctic regions has accelerated even further and has passed the point of no return. Hurricanes have gone beyond category 6, wreaking havoc like they were nuclear bombs. The global total of damages has exceeded the \$ 1 trillion marker and insurance companies are bailing out on a massive scale. The renewables infrastructure, especially solar and wind parks, are destroyed over and over again, now hurting the economy in a structural way.

It has gotten out of hand só fast that even the most defiant world leaders and politicians are scratching their heads, saying:

‘Geez, this thing with the global warming and all is getting out of hand really fast. Maybe we should do something about that, huh?’

Now, suppose that a miracle happens and that, while attending the COP34 (which was moved to February 2030, because the hosting nation’s venue was damaged beyond repair by a Cat. 7 hurricane), the 200 nations of the world have a collective epiphany and acknowledge that climate change is real and happening in real time. What then? Just shut down all operations and go in total global lockdown for 20 years? Invent a giant machine to suck out the 1.750 gigatons of cumulative CO₂ we’ve pumped into the atmosphere?

Look, when push comes to shove, there is no on/off switch, no reset button, no edit/undo function. Planet Earth is seeking a new equilibrium based on the

mess we've made ourselves and it doesn't care one bit about our feelings. We'd better batten down the hatches and buckle up. The perfect storm is coming.

6.13

SM844

Climate change is THE BIG SHORT and I am Michael Burry

I just finished watching the movie *The Big Short* again and I recommend that you watch it too.

Quick reminder: <https://lnkd.in/eHV3Sbu8> [Wikipedia/ The Big Short]

This film is brilliant any way you put it. It is fast, funny and original. It hits the spot on human greed, shortsightedness, ignorance and stupidity. And it makes an intriguing and gobsmackingly accurate comparison with climate change/global warming, with one difference. But you have to hold on to the end of this post for that to be revealed.

Just like the brilliant movie *Don't Look Up!* — if you haven't seen that one, shame on you! — 'The Big Short' tells the story of a brilliant mind seeing the dire future of systemic collapse with stunning accuracy, years before it actually happens. The astronomers see the comet coming just as the financial specialist sees the downfall of arrogance, hubris and greed.

I feel strongly related to the character Michael Burry, magnificently portrayed by Christian Bale, who sees the coming of the end, the crash of the financial system. He's fighting strong opposition, declared NUTS, called a pessimist, a

doomsday preacher, a morose character, a moron and arrogant know-it-all and ... — oh damn! I'm talking about myself now.

For the past few years I have seen the situation with climate change/ global warming getting out of hand fast. I have dedicated an entire book on the subject, my Magnus Opus, published in 2022, and I have authored over 800 posts about it here on *LinkedIn*. I am a self-proclaimed 'confrontealst' and my message is clear, concise and succinct:

"It's too late, we've waited too long. We've had our chance and blew it. We have passed the point of no return and suprasystemic collapse is now inevitable'.

I feel like Michael Burry because at times it seems like I'm fighting this fight for collapse awareness, resilience and acceptance in splendid isolation. In reality that's not true, I know; plenty of other people see the end coming too, but techno-optimism is clouding the way forward, because they say:

"Yeah, the situation is bad, we've made a mess. But it's not too late, we can still fix this witch renewables technology. But we all have to work together closely and really speed up our efforts".

Now, what is the difference between The Big Short and my dire predictions? Well, when the markets fell in 2008, the banks and financial institutions were bailed out by the government. Everything was restored to normal and currently the next economic crisis is well underway. But when human civilization comes crashing down, there's no outside agency to bail us out. No one will come to our rescue. It will be game over for everybody, everywhere.

Now, to be clear and to conclude, I hope that the techno-optimists are right and that I am wrong. I honestly do. If that is the case, I'll humbly bow my head and apologize. But then you have only one question to answer:

What if I am right?

6.14

SM845

Holding the techno-optimists to account

Climate change is getting a tad out of hand, don't you think? But the techno-optimists don't believe so.

'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!'

I said: bring it on!

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).

These global warming KPI's are continuously measured and reported. Therefore, I thought, let's make it concrete and visible, because I can't wait for the renewables revolution to make us a Brave Green New World.

Take a look at the first of 7 diagrams attached to this post. You can see 3 curves going up and 3 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; all three are in acceleration mode. Based on this very diagram we now hold the techno-optimists accountable by saying:

'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:

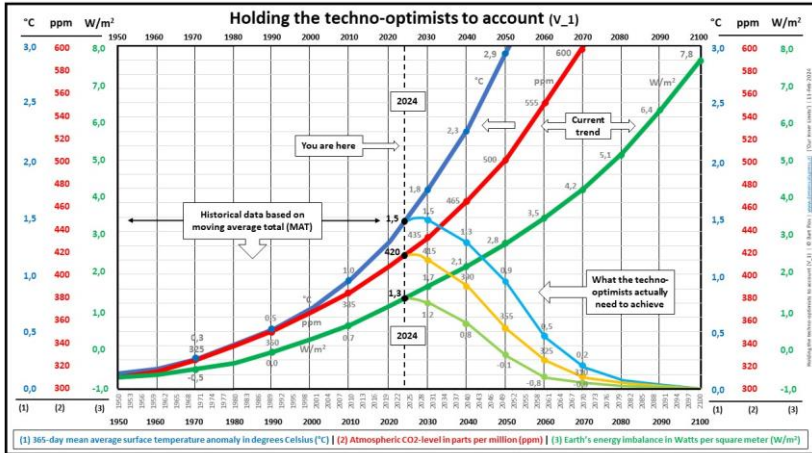
Current 420
2030 415
2035 400
2040 390
2050 355
2060 325
2070 310
2100 300 ppm

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

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?”



6.15

SM846

We are dead in the water

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.

Epilogue

SM575

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

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

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

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

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

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

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

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

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

Bart Flos – Helmond | November 2023 – April 2024.

Appendix I

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

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

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

– *Prof. Pels: 'So you claim that we have no chance of surviving in the long term, that we are doomed to collapse. That's a bit too short-sighted for me. I believe that it is not yet too late, that there are still opportunities and possibilities.'*

– *Mr. Luis: 'Go right ahead, sir. As long as I can say what it 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 Last Resort: Collapse Acceptance

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 Last Resort: Collapse Acceptance

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 réally want to do a deep dive into the subject matter:

<https://www.mdpi.com/2673-4060/4/3/32#:~:text=In%20the%20simplest%20terms%2C%20overshoot,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/Qfo3Uo4rqGQ> [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/IIEu-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 Last Resort: Collapse Acceptance

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 and collapse. We will break the last ultimate taboo together: daring to say that we have waited too long, that it is now too late and that we will have to passively suffer the consequences of our destructive collective behavior as a human species.

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