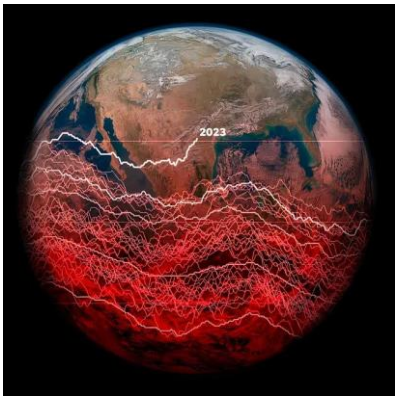
Bart Flos

OUR INNER LIMITS



Addendum VI

The Frontal Confrontation: Climate Change

OUR INNER LIMITS

ADDENDUM VI

The Frontal Confrontation: Climate Change

BART FLOS

Previously published by Bart Flos:

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

As addenda to 'De mens als grens':

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

As addenda to 'Our Inner Limits':

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

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

Self-knowledge is the first step to adulthood.
Jane Austen

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

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

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Table of contents

Introduction

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

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

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

Fast forward to 2022

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

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

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

Fast forward to 2024

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

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

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

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

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

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

About this book

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

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

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

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

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

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

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

Each addendum is classified into 11 fixed chapters:

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

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

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

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

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

Good luck and success!

Bart Flos, Helmond | November 2023 – April 2024.

Chapter 1

The frontal confrontation

1.1
SM257
Why world population decline might just save us

I saw a post stating that more people are starting to switch to a diet with less meat, more fruit and vegetables, maybe even try to mix it up with a bit of a vegetarian or even vegan lifestyle. And that alternatives such as meat substitutes and cultured meat are on the rise. 'More power to the vegetarians, absolute power to the vegans!' (I'm paraphrasing here).

This was my response:

"It's not enough. Not by far. Despite these statistics, and despite the fact that you can't get everybody on this planet to turn vegetarian or vegan, the world population will grow with 1% each year, from 8 billion today to 10 billion in 2050, before it starts to level out and maybe even decline. All of these people will want to get rich, healthy, happy and grow old. Nobody wants to decline; we all want to at least keep what we've got and preferably get a little more. That's simply unsustainable.

Our global strategy to mitigate overshoot (*) is wrong. We should take far more drastic action. For instance, if we decrease the human population with 1% each year (which is the opposite of the current growth rate), we'll reach 6 billion people in 2050 (instead of 10, which is a good start) and 1,3 billion by the end of the next century (the ideal number). This planet might be able to cope with 1 or 2 billion people, but not 10. Not by a long shot.

So yeah. Let's go. Let's decline, let's reduce the world population. Suggestions anyone, on how to go about that?

(*) Overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat. Overshoot isn't 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 collapse of our suprasystemic infrastructure.

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

1.2
SM269
Reversing the Stripes of Doom

Attempts were made on the social media to have us wear the 'doomsday-stripes'. This is a well-known picture of increasing global average surface temperatures, depicted as stripes varying in color from left to right, starting with an ice-cold deep blue on the left, via white, to a flaming deep red on the right, representing today's boiling status.

It was suggested we should all wear these stripes, literally on t-shirts and hoody's, to communicate the high alert status of climate change. I protested the whole idea. You probably want to know why. Thus was my response:

'Why do yóu show the 'doomsday-stripes'?

Apparently there's some new climate change initiative going around that encourages us to wear and therefore show the 'doomsday-stripes', those depictions in which the rising average surface temperature on earth is shown as a 'barcode of doom', with colours going from year to year, changing from cold blue to red hot, over the past 50 years, chronically going from left to right.

I adamantly refuse to wear or show them in any way, shape or form! I will spit on it if it's displayed on buildings and objects. I have explained myself about all that in previous posts. But I have also nuanced these posts and tempered my radical stance in this matter. Because it's not that I do not wánt to wear and show these stripes. I just don't want to show them the way they are nów.

Because this ‘doomsday barcode’ is self-explanatory and anyone can extrapolate what we are in for.

So, I’m perfectly fine showing these stripes in about 50 years from now, when they look like the exact opposite. I inserted a depiction that was turned upside-down, with the stripes now starting with a flaming deep red on the left, via white, to an ice-cold deep blue on the right, depicting the situation at around 2070.

Because then we’ll have something to show for ourselves. Then we have proven to ourselves that we’re nót all talk and no action. Then we can proudly keep our heads up high, because we have cleaned the environment, restored the biodiversity and reversed climate change.

Thén I’ll be one hell of a proud motherfucker, wearing my strips with dignity, respect and honor! Proud to be part of a species that was able to go from fundamental division to global unification. Proud to be part of a transition that involved all of us, all 200 nations and all 8 to 10 billion specimens of the species Homo sapiens, ‘the wise, thinking, modern man’.

Until such time I’ll consider us *Homo infantilicus*, ‘the stupid, ignorant cave man’.

1.3
SM271
Understanding the hypocrisy of the fossil fuel industry

It was all over the news in 2023: the fossil fuel industry backed down on previous promises and pledges and started to delay their strategy to phase out oil, coal and gas. Cunning tactics and clever wording were used to deceive us, distract us and providing us with the impression that it was only temporary and that they would 'pick up the pace again in 2030, 2035, 2040…'.

Outrage ensued within the climate change movement and it was suggested we should see right through it and confront them with their outright hypocrisy.

This was my reaction:

"I agree that we should be able to recognize these delay tactics and try to outmaneuver them. Be smarter than the delayers, rise above the climate deniers. But how can we do that if we fail to recognize WHY people are behaving this way? I mean, everybody is able to see the extreme weather, the climate disasters roaming the planet and the increase of the frequency and intensity of these events (*).

People do recognize it, but choose to ignore it, deny it, diminish it, swipe it away, be afraid of it, don't want it to be true and hope it will go away. The why-question is éverything! People deny climate change (or delay actions to reduce

the emissions of greenhouse gasses, as the fossil fuel industry shamelessly does), not because they don't see the shit storm, but because it goes against their primary, supralocal interest: their individual wellbeing and prosperity and that of their small social groups of family, household, friends, colleagues and teammates.

The world community is an illusion! We are hopelessly fragmented into hundreds of millions of small social groups, that are, in general, taking care of themselves first. Everybody wants to be rich, healthy, happy and grow old. Nobody wants to decline or reduce. Everybody wants to at least keep what they've got, preferably get a little more.

It's simply unsustainable.

(*) In fact, environmental pollution, destruction of the biodiversity and climate change are mere symptoms of the overarching problem: 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.

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

1.4
SM279
What does 1% population decline per year mean?

Those who follow me here on LinkedIn know that I am critical of the proposed solutions to deal with our existential crisis. This crisis is called overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat.

Homo sapiens, the "wise, thinking man," is, from standpoint of evolution and natural selection, wholly unfit to be numbered in the billions. We are hunter-gatherers, evolved to roam the savannas in small social groups. But we are also very fertile. The world's population is currently growing at 1% per year. That means that the 8 billion people on the planet today will have multiplied to 10 billion by 2050.

All those people want to become rich, healthy, happy and grow old. No one wants to decline or decrease. We all want to keep at least what we've got, preferably a little more. That is simply unsustainable. Overshoot is always punished with collapse; it is embedded in the system. There are simply too many of us, we consume too much, waste too much, pollute too much and heat too much.

Population reduction is the only solution. With a population decline of 1% per year, we will have 6 billion people in 2050 (a good start) and 1,3 billion by 2200 (the ideal number). Let me now make this fact concrete for our country.

The Netherlands has 17,5 million inhabitants. Every year there are about 170.000 deaths and 167.000 people are 'born alive'. If the Netherlands has to reduce its population by 1% per year, then the deaths must first be compensated. So theoretically, 170.000 people are allowed to be born every year.

But 1% decline per year means that a net 175.000 people per year have to 'subtracted'. That means that the population must be er, 'reduced' by at least 5,000 extra people per year. The simple conclusion is: no more pregnancies in the Netherlands! The population will not decrease by itself and those 5,000 fewer people per year will have to be actively, ehm, 'declined'.

Do you also feel an extremely uncomfortable feeling coming on? No more pregnancies and every year 5,000 people have to eh, ‘disappear', on top of the people who die every year anyway, so that every 10 years 1,75 million people 'get subtracted' and we will have 13,4 million inhabitants in 2050 and 2,9 million in 2200. That is the target number for the end of the century.

(Note: 1% shrinkage per year is not a linear process but an exponential one — in case you're doing the math yourself).

Doesn't feel right, does it? Because how do you accomplish something like that? And of course, it applies to all 200 countries of the world. Each nation must achieve a 1% contraction in order to reach 1,3 billion people worldwide by 2200. But yes, if we do nothing, we will continue to grow at 1% per year to

10 billion people in 2050. That simple fact, based on current trends, has collapse written all over it.

1.5
SM291
Imagine you were born in the year 2000

Somebody wrote:

"Imagine you were born in the year 1900.

- *When you're 14, World War I begins and ends when you're 18 with 22 million dead.*
- *Soon after a global pandemic, the Spanish Flu, appears, killing 50 million people. And you're alive and 20 years old.*
- *When you're 29 you survive the global economic crisis that started with the collapse of the New York Stock Exchange, causing inflation, unemployment and famine.*
- *When you're 33 years old the nazis come to power.*
- *When you're 39, World War II begins and ends when you're 45 years old with a 60 million dead. In the Holocaust 6 million Jews die.*
- *When you're 52, the Korean War begins.*
- *When you're 64, the Vietnam War begins and ends when you're 75.*

A child born in 1985 thinks his grandparents have no idea how difficult life is, but they have survived several wars and catastrophes. Today we have all the comforts in a new world, amid a new pandemic. But we complain because we need to wear masks. We complain because we must stay confined to our homes where we have food, electricity, running water, Wi-Fi, even Netflix!

None of that existed back in the day. But humanity survived those circumstances and never lost their joy of living.

A minor change in our perspective can generate miracles. We should be thankful that we are alive. We should do everything we need to do to protect and help each other."

This was my response:

"Imagine you were born in the year 2000.

— When you're 7, the first iPhone is presented. Your parents are thinking about getting you one.
— When you're 8, the financial crisis hits the globe. Almost 9 million jobs are lost and $ 19 trillion of capital is vaporized.
— When you're 19, the Corona-pandemic starts, robbing you of your right to have fun. Almost 7 million people die globally.
— When you're 23, atmospheric CO2-level is at 420 ppm and the atmosphere, biosphere, lithosphere, hydrosphere and cryosphere are entering a state of cascade failure, leading to unprecedented ocean and surface temperatures.
— When you're 24, the El Niño / La Niña reversal intensifies heat all over the world. Temperature records are smashed and extreme heatwaves, droughts, downpours and floodings wash over the planet.
— When you're 40, the average global surface temperature has breached the 2C limit and climate disasters are roaming the planet. During the summer you have to stay indoors. CO2-level is now at 460 ppm.

— When you're 50, the average global surface temperature has gone beyond the 2,5C limit, CO2-level is at a staggering 500 ppm. Mass migrations lead to

conflict, crisis and war. Countries are tightening their borders. A climate disaster occurs every day, the weather has become a lethal phenomenon.

— When you're 60, the world as you know it has totally changed. Average surface temperature has now surpassed the 3C marker and CO2-level is at 530 ppm. Hundreds of millions of people have fled the shores and migrated towards the poles. The infrastructure is in ruins, supply of energy and food is severely interrupted all over the planet.

— When you're 70, the situation has gone completely out of control. Global warming has passed the 3,5C marker and is moving towards 4C of warming: hell on earth. The death toll has risen to billions of people across the globe and countries are fighting wars over the remaining food and water sources. There is no prosperity, no wellbeing; it's everybody for themselves. Human civilization is reverting to its state at the beginning of the 19th century.

— When you're 80, you make the mistake of going outside during a killing heatwave with wet bulb temperatures of 37C (and air temperatures surpassing 45C for days in a row) and you die of organ failure due to a heat stroke. You are one of the hundreds of millions of people to suffer and die as a result of environmental pollution, destruction of the biodiversity and climate change (*).

I think that we would be wise not to cry victory over the past. The present is giving us already all the signs of what our future is going to be like. It will be far worse than the most destructive global events we've seen so far. World Wars and pandemics will pale in comparison.

This generation will see the beginning of the end. Our children will live on the edge of hell and our grandchildren will inherit a world that is devoid of prosperity and wellbeing. We're not Homo sapiens, the 'wise, modern, thinking man'. We're Homo infantilicus.

(*) 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. See also Appendix IV".

1.6
SM320
Ignoring the big 'IF's

Hopefully bright and shiny renewables projections permeate the internet and lay it out before us: it's all going to be simply great, all swell and dandy, if we only sit back and see events unfold. Yes, we're making a mess, for sure, and we are ashamed, but it's not too late to fix it. Look at these numbers rising, whilst these numbers are falling. We just need to sit tight and see it through.

Perhaps. But I guess we just don't see the big 'IF' in these kinds of reports. These projections are all well and good — well, they're actually horrifyingly bad — but they assume that the fossil fuel industry will hold itself to its own projections.

— 'IF we stick to our targets and change our habits, we might reduce fossil fuel demand so that the industry will have no choice but to follow.'
— 'IF the production of green energy continues to develop, the fossil fuel industry will have no choice but to adapt.'
— 'IF we start changing right now, we can still dó something about our existential predicament.'

See where I'm going with this? Because in the mean while we burn 100 million barrels of oil, 22 million metric tons of coal and 11 billion cubic meters of natural gas every day. We produce, on a daily basis, 190.000 non-electrical vehicles, 1 million metric tons of plastic, 5,5 million tons of waste and 11 million tons of cement.

As a consequence, we add 150 million tons of CO2-equivalent to the atmosphere every day and our atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have now entered a state of cascade failure, the prelude to suprasystemic collapse.

What the HECK are we doing? Are we so daft that we don't see what's coming our way? Are we so obtuse?

1.7
SM330
We, the entire human species, we are bankrupt already

So, we, the human species, we did a heck of a lot of damage to our habitat. We polluted the environment, destroyed the biodiversity and changed the climate. All on our own, the other species had nothing to do about it. And now it's payback time! In two ways.

First, our living environment tells us quite adamantly that *enough is enough*, and the extreme weather and climate disasters, growing in both frequency and intensity, prove it beyond a reasonable doubt. Secondly, we have done the damage ourselves and since we value money, we must pay the damages done. Do we have the liquidity to pat back our debts?

No, we don't. Not by far.

That's right! We don't have the money to finance the growing bill for climate change. Take carbon removal for instance. We haven't got a clue what that would take to accomplish. It would bankrupt us. Trust me, I've done the math.

I've looked at both cumulative emissions from 1751 to the present day ánd actual yearly emissions of CO_2 for fossil fuels and industry per country. Each country must pay for their fair share of emissions, to be compensated over a period of 27 years, until 2050. The cost of removing one ton of CO_2 varies

between $ 100 and $ 1000, so for my calculations I've chosen the middle ground: $ 500.

— Let's take the USA for instance. Current CO2-emissions are 5,1 gigaton per year (a gigaton is one billion ton), accumulated emissions are 399 gigaton. The challenge for the USA is to remove 19,9 gigaton of CO2 each year, or 1,7 gigaton each month.

The cost for the USA would amount to $ 9.942 billion each year, or $ 829 billion each month! That's $ 29.957 per capita per year or $ 2.496 dollar per month.

— For China these values are different of course. Their historic cumulation of CO2 is 200 gigaton, about half of that of the USA. But their actual yearly emissions are 10,9 gigaton of CO2, twice as much as the USA.

The cost of CO2-removal for China would therefore be $ 9.142 billion per year or $ 762 billion each month. The cost per capita however would amount to $ 6.475 per year or $ 540 per month.

— For Europe we would be looking at a removal of 16,6 gigaton of CO2 each year or 1,4 gigatons per month at a cost of $ 8.311 billion a year or $ 693 billion a month. That's $ 18.564 per capita per year or $ 1.547 per month.

— If you look at the 6 countries of the world that represent half of the world's population — China, USA, Europe, India, Russia and Japan — responsible for two thirds of yearly CO2-emissions and almost 80% of cumulative emissions, the amount of CO2 to be removed on a yearly basis until 2050 would amount to 68 gigaton a year or 5,7 gigaton per month.

The yearly cost would run up to $ 34.073 billion or $ 2.840 billion per month. That is $ 8.808 per capita per year or $ 734 per month, for 27 years in a row without a stop.

— On a global scale the statistics are mind-boggling. Cumulative emissions since 1751 are 1.500 gigaton of CO2, yearly emissions are 37,5 gigaton. That implies that we would have to remove 93 gigaton of CO2 per year (7,8 gigaton per month) at a cost of $ 5.816 per capita per year.

That's almost half of the GWP, the Global World Product (the sum of all GDP's) per year, for 27 years straight. So yes, in a sense, we, the human species in its entirety, we are bankrupt already.

If you are an optimist, you may divide these numbers by 5. If you're a pessimist you may multiply by 2. In the latter scenario we would have to spend the yearly GWP, currently $ 104.000 billion, each year, for 27 years. So, yeah. We haven't got a clue about what it takes to repair the damage we are doing to our living environment.

1.8
SM395
Why we're running out of time (and fast)

I came across a post with a visualization of greenhouse gas emissions across the globe, coming from a reliable source, based on scientific research. It was a more elaborate depiction of 'who emits the most', suggesting that this should be the bases of a just and fair distribution of responsibility and action to mitigate the consequences of human induced global warming.

This was my response:

"Fine. Thanks for that. Interesting read. But now what?

The countries that emit the least of the greenhouse gases, both historically and at present, have the least capital to fight back. Ironically these countries will suffer the most from human induced climate change. The fact that we are now able to analyze it more accurately, doesn't mean we didn't know it before. We know this already for over half a century.

Human induced climate change? Bád! Environmental pollution? Bád! Destruction of the biodiversity? Bád!

Hoe many ways do we need to point in the same direction, to analyze the same problem and to conclude the same damn thing? We have to start asking ourselves different questions if we want the narrative to change.

1. What drives us to do 'terrible things' (bad for the environment, bad for the ecology, bad for the climate) when we knów it's bad?

Producing cigarettes whilst the causation between smoking and lung cancer is long established. Producing opioids that have a proven track record of addiction, suffering and death. Producing massive amounts of plastics when we know that it penetrates our environment and our lungs.

2. Why would an individual that benefits from the excessive emission of greenhouse gases by making him filthy rich up to a point of preposterous excess, stop with that behavior?

This puissant rich individual is able to provide for his small social groups of family, household, friends, colleagues and teammates. How is that any different from what you do, what we all do? We all take care of the ones we love, before we take care of others. The only difference is the position we hold in the human hierarchy: the higher up, the more power, influence and control.

3. What would motivate a CEO from the Big X, the rich and powerful multinationals that dominate our world, to stop with his 'bad' behavior and start engaging in a durable, green and environmentally friendly way?

You might say "Define 'bad'. What do you mean?" Good question. The 'bad' for one person is the 'good' for another. If you are surrounded by people and small groups that only tell you what you do is 'good', you not only feel good about it, it becómes good.

Our fundamental behavior as human beings is exactly the same everywhere you look and everywhere you go: we are individuals in small social groups

taking care of our own. And we all want to get rich, healthy, happy and old. All eight billion of us, across two hundred countries, increasing by another two billion in the next three decades.

We don't need more exact measurements, analyses or definitions of the problem. We know what our problem is. We need to answer these questions first before it's too late. And that's not overly dramatic at all. Global warming is able and ready to take over our control. We're running out of time fast.

1.9
SM397
Profound statements are not going to get us out of trouble

I responded to a post that ended with the following profound statement:

'We can no longer believe in the decoupling of economic growth with human well-being, social well-being, and the state of the planet. We have to rethink our society, our priorities, and what matters. We have to change our economic paradigm'.

This was my response:

"Please allow me to be blunt. We know this already! For over half a century we have authored books and articles about it, done scientific research, gathered facts & figures and organized conferences. Yes! We pollute our environment, destroy the biodiversity and change the climate. But we must start asking ourselves a different type of questions:

If we know this already for so long, why don't we dó something about it on a global scale, where it actually makes a difference? The current world population is 8 billion people. The next 3 decades we will grow to 10 billion, in 200 countries. Each individual human being wants to be rich, happy, healthy and grow old. Nobody wants to decline or reduce. Everybody wants to at least keep what they've got, preferably get a little bit more. It's simply unsustainable.

This is wat we actually need to do:

1. *All poor people must remain poor.*
2. *All rich people must give up their wealth.*
3. *Population growth must become population decline.*
4. *Economic growth must become economic decline.*
5. *We should all reduce our income by 20%.*
6. *We all have to give up half of our savings.*
7. *We all have to go into complete lockdown for another ten years.*

That is the energy equivalent of the joint effort we must make to mitigate the consequences of our own actions. Currently, there is no effort at global level that even comes close to this list of seven."

Somebody commented to my response as follows:

"And that depressing message is exactly why nobody will get behind it. You tell the poor that they have to stay poor, so what's the point of changing. You tell the rich they have to give up their wealth, and you tell everybody to stop doing what is a biological drive and stop having babies, but you provide no motivation outside of a distant promise that this will make things livable for a remote future generation. You need to sort out your marketing because with those messages we are doomed'.

To which I replied:

"I understand your sentiment. Seven years ago, I wrote my 5th book *Vooruitkijken voor gevorderden* ('Futurology for Fanatics' — you can watch the TEDx-talk on YouTube). But back then I called myself an incorrigible

optimist. The past two years I have changed, becoming a self-proclaimed 'confrontealist'. Because only if we confront ourselves with the reality of our existential predicament can we start breaking our habits. And that's why I wrote my 6th book *De mens als grens* ('Our Inner Limits')."

1.10
SM402
Some thoughts to share about our future

Over the decades we have produced countless climate books, reports, analysis and conferences. None of them have reduced the global emission of greenhouse gases, global atmospheric greenhouse gas levels, the global average surface temperature, the Global World Product (the sum of all GDP's) and the world population. Each new book, report, analysis and conference is nothing but old wine in new bottles, because all the harmful stuff in the world is only going up and up.

Einstein is supposed to have said, but it is most likely apocryphal, that what he found most intriguing about the human species is that we try to change something the same way over and over again and each time expect a different result. Others have called that the definition of insanity. The only way to break that barrier is to ask ourselves a different type of questions, of which this one is the most important:

'What are we going to do differently this time?'

But at some point, we are going to run out of options. The worst-case result of, for instance a runaway climate — when tipping points trigger other tipping points — is that the Earth's atmosphere becomes saturated with methane clouds that will linger for fifty million years. We 'only' have to increase the surface temperature to 6 degrees Celsius above preindustrial levels. Current worst-case scenarios predict those kinds of temperatures by the end of the

century. At those levels of global warming, organic life on land and in the oceans can no longer be maintained. We will get extinct along with all other life forms on Earth.

Sure, we do our best to make this world a better place. We come up with all kinds of technologically durable solutions, renewable initiatives and carbon capture solutions. We keep producing new climate books, reports, analysis and conferences like we haven't produced the ones before. Sure, there are altruistic individuals that engage in DeGrowth. And sure, there are groups of people, even entire organizations that do the same. Some of the Nordic countries are ahead of all of us in striving for a Brave Green World. But it is all contained to the individual, local and regional level. Nothing scales up to the global level.

It just doesn't count. Because the ultimate average and the cumulative effect of our behavior as a species, the suprasystemic effect, on a global scale overruns these noble supralocal efforts. In my book I call that *das Gesamtergebnis*, the 'total end result' or 'highest level average'. Global warming isn't affected by national borders. And it doesn't care about altruism. At this point in time *das Gesamtergebnis* of the collective behavior of the human species is environmental pollution, biodiversity loss and climate change, the symptoms of overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat. Our efforts to mitigate overshoot just don't scale up to global levels.

I'm dead serious about this shit. And I'm not even a doomsday thinker or a climate extremist. I'm a confrontealist. Because only a frontal confrontation with the reality of overshoot on a global scale will hopefully open our eyes. Two years I have spent doing research for my book. I refer to more than 300 books in the reference list. I present five hypothesis that I challenge the reader to

falsify. I introduce two provoking paradoxes that I hope somebody will debunk for me:

1. *The Collaboration Paradox: we cooperate to fail.*
2. *The Existence Paradox: we coexist to get extinct.*

No book, report, analysis of conference has ever stopped the neoliberal, capitalistic, consumeristic, growth-economic the free market. If you plot the global emissions of greenhouse gasses on a time scale of the past fifty years, and if you mark each event in which an ecological book or theory was published, an IPCC-report was produced, a climate conference was organized, you will observe no effect whatsoever in the growth of emissions. None.

There are only two events that caused a minor bump: 2008, the financial crisis, and 2020, the global pandemic. But in each case, we rushed to restore the economy to its original pace. It's not that we wánted to reduce our emissions in 2008 and 2020. We were forced to. We underwent it with a great amount of protest and complaining.

This year (2022) will break all records with expected global CO2-emissions of 37 gigatons of fossil fuels and industry. The global atmospheric CO2-level has gone up to 418 ppm (preindustrial levels were at 280 ppm). The global average surface temperature has risen to 1,2 degrees C above preindustrial level. The Global World Product, the sum of all GDP's is at $ 104 trillion. The world population has reached 8 billion people.

If we keep this up, we're up for 43 gigaton of CO2-emissions, an atmospheric CO2-level of 500 ppm, an average surface temperature of 2,5 degrees Celsius, a GWP of € 130 trillion and a world population of 10 billion people by 2050.

It’s hard to believe anyone can imagine a better world for us to live in under those circumstance. Yet we keep on pumping 150 million tons of CO2-equivalent into the atmosphere every day, like there is no tomorrow, let alone a year 2050.

It's quite disconcerting really.

Chapter 2

Looking down from above

2.1

SM253

Being right ánd wrong about minorities versus majorities

I saw someone stating, as a sort of root cause analysis of our existential predicament, that the majority has always exploited the minority and that it is 'white supremacy culture' lying at the root of the problem.

This was my response:

"You are completely right. But you are also completely wrong.

You are completely right that the rich and powerful minority has always exploited the poor and powerless minority. History is inundated with inequality, abuse of power, intolerance, mass murder and genocide. No arguments there. But you are also, with all due respect, completely wrong.

But you are completely wrong about contributing the current existential predicament of the human species to the minority of 'white supremacy culture'.

Because it's beside the point. It doesn't matter who does the actual damage, if it results in the annihilation of the entire species. And it doesn't matter who did what to whom at what point in the past or present, if the end result is the destruction of the future of all of us, everywhere.

Overshoot or overconsumption (when a population exceeds the carrying capacity of its habitat) is a generic, overarching existential problem for all 8 billion human beings (*). The collapse of our suprasystemic infrastructure will hit everyone, everywhere. Sure, 'white supremacy culture' might survive a little bit longer in their luxury survival silos and bunkers. But when they resurface there's nothing to inherit, nothing to possess. Planet Earth will have become completely inhabitable.

We're all sailing and navigating the same ocean, but some have bigger boats than others. But when push comes to shove and the waves become a perfect storm, size doesn't matter. Since we're all in this together, we will all go down together, minority or majority, rich or poor, powerful or powerless, everybody drowns the same way."

That clearly provoked a response, not on my substantive argumentation, but on the form, the wáy I responded. So, I was instantly put in the 'white supremacy corner' too. Because nobody likes to be called 'completely wrong' on something. I sympathize. But we're not debating trivial issues here. And this is not about human culture, it's about human *nature*. We're talking about the survival of the human species, about our possible extinction in the long run. That deserves a straight up debate, with facts and figures and with our gloves off.

So, I responded as follows:

"I was exaggerating to make a point. And you have missed it. You are right that there are no absolutes. But that wasn't my point either. My point is that you're right about your stance on white supremacy. I'm not fighting you on this. History is on your side. But when I say that you are missing the point, you just made that perfectly clear by not responding to my substantive arguments.

I'm saying — and I'm repeating myself here — that white supremacy is irrelevant with respect to our existential predicament. You are debating the issue like the human species has a future left in which these debates have a function. That's not the case. In order to understand that, you have to command your helicopter to fly higher than the issues that you describe (to which I say again, to avoid confusion, that you are right about).

When I read your argumentation, putting me in the corner of white supremacy culture, I'm thinking of that expression that 'when all you have is a hammer, everything looks like a nail'. Don't kill the messenger, I'm with you on your points. But we're speaking on different wavelengths. The collapse of our suprasystemic infrastructure as a result of overshoot makes your arguments irrelevant.

I have done 2 years of research on the matter, read over 300 books, studied the scientific literature and published a book in December 2022. In my book I leave it to the reader to draw their own conclusions, but if you read my (re)posts and comments on LinkedIn, it won't even be a spoiler alert when I say:

— There's is no way out. Not anymore. It's too late. Collapse is now built in.
— Our current societal structures only make it worse and amplify our existential predicament: that we accelerate our own demise.

— We don't have to call it out for what it is, because we've already done so. A million times. What you're saying is true, but it's redundant, it's superfluous. We know this already.
— It doesn't matter (anymore) who's more to blame for the shit storm that's headed our way: the south, the north, the east, the west. It's too late, we've waited too long.
— The core problem lies within us. We, the human species, our very nature spoils it all. We were never meant to be with billions.

We're still hunter-gatherers and social group mammals, existing within our small groups of family, household, friends, colleagues and teammates, taking care of ourselves first. When I speak of 'human nature' it is important to understand that I'm not talking about individuals, but for the species as a whole.

In my book I call that *das Gesamtergebnis*, a German word for 'total end result' or 'the highest average'. It is true that you may find heartwarming examples of altruism, empathy and tolerance at individual level, sometimes even at group level. But it doesn't prevail. It doesn't add up, nor does it scale up.

Every individual in the 2 billion people that we'll have added (in 2050) to the 8 billion we already have, wants to get rich, healthy, happy and grow old. Nobody wants to decline. Everybody wants to at least keep what they've got, preferably a little bit more. That's build into human nature. We're programmed to take care of ourselves and our social groups first. Everybody does that, whether you're rich or poor, powerful or powerless.

The world community is an illusion. We're splintered across hundreds of millions of small social groups taking care of our own. *Das Gesamtergebnis*

dictates that. on average, we do not act as one. That very behavior drives us to extinction, I'm sorry to say.

I am well aware of my privileges as a white male living in a rich country like The Netherlands. But I don't feel supreme at all. I feel insignificant. Not on a local scale I don't. I do my best to be a 'good' member of society and I lead a rich, happy, healthy and hopefully long life. My significance is abundantly clear on a supralocal scale. On a suprasystemic scale I do not only feel insignificant; I weep for mankind. We are a waste of talent and prospect.

Let me be perfectly clear about what's coming. Because I think we should stop beating around the bush. Earth's atmosphere, biosphere, lithosphere, hydrosphere and cryosphere are crossing frightening tipping points. That's happening right now, in real time. Ocean surface temperatures are skyrocketing, droughts are increasing, heat waves are getting longer and more severe, downpours and floodings are off the scale. That scares the bejesus out of me. It really does.

Because this generation will see the beginning of the end, our children will live at the edge of hell and our grandchildren will inherit a world that is devoid of prosperity and wellbeing. That's the scenario as it is going to play out over the next 100 years or so. Nothing else matters.

Please don't think I'm taking to the rooftops every day, shouting that the world will come to an end. I can separate the supralocal from the suprasystemic. I used to call myself an incorrigible optimist, 8 years ago, when I wrote my 5th book. But I have changed. I'm a self- proclaimed 'confrontealist' now, because only a frontal confrontation with reality might open our eyes to what's coming. I enjoy my life the best I can, celebrate the good things we still have, with

friends and family. Sometimes, when I look around, I can't imagine it all deteriorating over the next couple of decades.
We're totally unprepared. Our children are glued to their smartphones', laptops and earphones, completely addicted to the luxuries and benefits of a stable infrastructure. To be resilient doesn't mean writing a provoking post or joining a demonstration in the streets for just one day. Resilience encompasses the skill to survive withóut a stable infrastructure, in a world where the electricity is gone and the food supply has collapsed. We wouldn't know what to do with ourselves.

We can debate supremacy, ideology, culture and righteousness until we're blue in the face, but that's only useful when the infrastructure is stable. Do you think they care about all that in Ukraine? Do you think they have debates about corruption, discrimination, white supremacy, inequality and intolerance? Do you think they organize conferences to debate a strategy to mitigate environmental pollution, destruction of the biodiversity and climate change?

The entire world was in a state of sheer panic and disarray when the war in Syria released a million refugees. Now imagine what happens when a runaway climate unleashes hundreds of millions of refugees. All 200 countries of the world are faced with the same dilemma: how to protect our borders, safeguard what we've got. Those borders will be shut tight.

Nobody will worry about human values when societies collapse. Everybody will become intolerant 'overnight' when a runaway climate creates a 'hothouse Earth'. Every academic discussion about utopia versus dystopia will become instantaneously moot when the climate shit hits the fan. So, I'm enjoying myself while I still can. And I'm getting better at it every day, without losing

my respect for my fellow humans (well, most of them anyway) and without becoming all too righteous and judgmental, I hope.

Thanks for debating me. It's highly appreciated. I wish you all the best in your endeavors."

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

2.2
SM254
About leaders and followers

A post showed a picture of a sign reading:

'True leaders don't create followers. They create more leaders.'

This was my reaction:

"The sign should have read:
'True leaders can't create followers. Followers exist in natural proportions. True leaders can't create more leaders. Natural leadership can't be taught.'

And on the flip side:
'True and natural leadership is a result of evolution and natural selection. If you're lucky, you'll meet a handful of true leaders in your lifetime. Most of our leaders are mere managers with wáy too much power.'

And if you had a sign left:
'Management is an invention of mankind. It doesn't exist in nature. We shouldn't confuse management with leadership. Managers are wannabe leaders. True leaders have both leadership ánd management skills.'

I say.'

2.3
SM255
The clash between supralocal and suprasystemic concerns

I saw a post written by a passionate climate activist, listing all the problems that we're in with the environment, biodiversity and climate. That it is only getting worse, leaving no place on Earth untouched, whilst accelerating and intensifying at the same time.

This was my response:

"Thanks for your passionate post. I concur. I fully agree with each of these statements. It should be enough to drive everybody up the wall first and then get serious about climate change. But we won't. Let me explain.

I'm reading your post on my smartphone, getting ready to get up and do my Saturday things. Have some breakfast, read the papers, do my chores, get some groceries and maybe go out in town tonight. That's all on a supralocal level, where we as individuals exist, in our small social groups of family, household, friends, colleagues and teammates. Everything that matters to us exists at that level.

The next level up is the societies we live in. Small — street, block, neighborhood — and large — village, city, state, country. The problems in society concern us, but not as much as our supralocal problems.

The next level up is the suprasystem: the human species, 8 billion people on this planet, growing with 1% each year to reach 10 billion people in 2050. That's where our existential problems exist and that's the habitat we're destroying.

When we project suprasystemic problems onto our supralocal needs and desires, it doesn't fit. Cognitive dissonance sets in. And we go about our business. We can't apply something this big, something this existential, to our 'little local lives'. And that's why we're headed for disaster. Collectively. Knowingly.

It's a damned shame really."

2.4
SM272
About human nature

I saw a post from a 'worried citizen', being both outraged and sad about the 'carelessness in which we disregard our responsibilities towards the environment, the biodiversity and the climate'. It had a tearjerking picture of refugees, packed on a small vessel that was about to keel over. It seemed to imply that 'we completely ignore the anguish and suffering of refugees that try to escape their destiny'.

This was my response:

"I'll give you a rational explanation, but you're probably not going to like it.

1 — It's not that we don't care about other people.
We do, but we only care about the people that are closest to us: the ones within our small social groups of family, household, friends, colleagues and teammates.

2 — We care most about the people within our own community and within our own culture.
Those are the people that look and act like us and speak the same language as we do. They are our fellow human beings within our small social groups of family, household, friends, colleagues and teammates.

3 — We don't necessarily dislike (or hate) the people that are further away from our supralocal community.
It's just that we, from an evolutionary standpoint, only have energy and cognitive capacity reserved for the ones nearest to us: family, loved ones and a few close friends.

4 — The further we move away from the center of our small social groups, our inner circle, the less we know and care about others.
We have no affinity with refugees far and away, on an unstable boat, even if there's children on board. Because they're not óur children, we don't love them.

It is sheer human nature, evolution and natural selection that are at play here. Posting pictures about it won't change anything about the very nature of being human, both caringly and indifferently.

2.5
SM276
My personal disillusionment

What would you do if you found out that not only all your literary heroes and progress thinkers were dead wrong, but you yourself too? Would you then persist in your views or reconsider them?

Already 8 years ago I published my 5th 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.')

https://www.vooruitkijkenvoorgevorderden.nl

At that time, I still called myself an incorrigible optimist, inspired by other authors and progress thinkers, such as Hans Rosling, Steven Pinker, Johan Norberg and Rutger Bregman. These authors eagerly use graphs, which invariably show the same exponential "progress": nutrition, sanitation, life expectancy, poverty, violence, the environment, literacy, freedom, equality (Norberg, 2016), and so on.

There was one particular 'graph' by Hans Rosling that really inspired me: the video '200 Countries, 200 Years, 4 Minutes':

https://youtu.be/jbkSRLYSojo

I became convinced that the world would only get better and eagerly wrote about it. But Rosling, Pinker, Norberg and Bregman were all wrong! And Flos too! For these graphs do not represent progress at all, but regression, erosion and decay. To understand that, you just have to add a few lines: the growth of the world's population, the gross world product (the sum of all the GDPs), the consumption of oil, coal and natural gas, the emission of greenhouse gases, the CO2-level in the atmosphere, and so on.

It was a real *Aha-Erlebnis* for me. A fundamental change in my view of the future of human civilization. The one is inextricably linked to the other: exponential growth is impossible without overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat (*).

Environmental pollution, biodiversity destruction and climate change are symptoms of overshoot. Overconsumption is always met with collapse. It is embedded in the system. All those graphs perfectly predict where things are going: collapse has become inevitable.

Last December, after 2 years of extensive research, I published my 6th book, ‘De mens als grens — Over de onbuigzame barrières van ons bestaan’ (‘Our Inner Limits — On the Unbending Barriers of Being’).

https://www.demensalsgrens.nl

I now call myself a 'confrontealist'. Because only a frontal confrontation with reality can open our eyes. Care to join me in my disillusionment?

(*) See Appendix IV.

2.6
SM283
Why multinationals don't feel responsible or accountable

Almost on a daily basis we see news about the 'climate crisis', the worsening pollution of the environment and the disturbing loss of biodiversity as a result of mankind's dirty habits. A saw a particular post with an overview of '20% of multinationals creating 80% of the problems' (I'm paraphrasing here), concluding that we need to 'challenge these bad boys for doing so much damage' and to 'make them responsible and accountable for their actions' (idem).

This was my reaction:

"Good story. Now imagine that someone from these 'rich nations' reads this post, let's say a CEO of a multinational, well invested and economicly obsessed with turnover, profit and growth. Do you think he (this CEO will most probably be male) will fall down on his knees in a moment of epiphany and cry out for mercy? Do you think he will now call for an emergency assembly of his MT to set out guidelines to decimate half the company?

'Why would I?', he will mumble. 'Why me? Why us? Why can't the others go first? Why should we be the ones to suffer? We didn't cause this mess!'

Do you see? It doesn't matter that it's only a handful of multinationals or only a few rich nations that cause 90% of our existential problems. We need to understand WHY we, as a species, haven't done anything to mitigate overshoot (*), haven't engaged in some consorted global effort to start dealing with our shit, despite the countless reports, analyses and conferences that we produced over the last half a century.

If we fail to understand the very nature of Homo sapiens, the essence of what we are, we will not fix this. We will be too late. Perhaps it already is. At this point in time, it seems that our atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have entered a state of cascade failure. Cascade failure is a prelude to suprasystemic collapse. For us that implies the collapse of human civilization. And that's a concept far beyond our grasp. We simply can't imagine that ever happening to us.

Well, it can. In the history of this planet, 99,99% of all species have gone extinct. We're the only ones accelerating our own demise. How crazy is that?

(*) See Appendix IV.

2.7
SM297
About the definition of insanity

Someone wrote a strongly worded post with an analysis of our existential predicament, containing all the problems, its causes and consequences and the various solutions we have at our disposal. It was a harsh, yet upbeat post that also provide hope and it ended as follows:

"So, let's take action. Let's collaborate to tackle these challenges and create a more sustainable, equitable, and compassionate world for our children and grandchildren."

This was my response:

"Eloquently put. Please allow me to put some more pressure on the issue here. No more Mister Nice Guy, let's tell it like it is. Because 'the internet' in general and LinkedIn in particular, are inundated with the same kind of posts that, on average, boil down to the same message:

1 — The situation has gotten worse at every turn: all this extreme weather, climate disasters and so on. It's unbelievably bad.
2 — If we don't act now, it's going to get a whole lot worse and we run serious risk of, well, that we're all going to DIE.
3 — But it's not too late! We can still dó something. The only thing we need to do is to get together and act.

Oh, come on! Don't you see? We keep trying to fix this the same way over and over again and each time we expect a different result. Others call that the definition of insanity.

What we're currently doing clearly doesn't work. For the past half century, we have produced countless climate analysis, reports and conferences, but population growth, emission of greenhouse gasses and CO2-levels in the atmosphere just kept going up. The atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have now entered a state of cascade failure, the prelude to suprasystemic collapse. We are truly in dire straits and our planet is turning against us (*).

Therefore, there's only óne question we need to start asking each other, when we find ourselves feeling powerless to what's happening and want to say something about it. Here it is:

— *What are we going to do differently this time?*

Simple as that.

To all you climate warriors and 'worry-ors' out there, to all you activists and analysts, scientists and skeptics — to all you people out there worrying sick about what the fuck is happening to our living environment:

Before you post anything on 'the internet', before you even write óne word, please, for the sake of humanity, don't be redundant, but ask these questions first:

— *What, for crying out loud, do you suggest we do differently this time?*

— What, for Pete's sake, do you suggest we do, other than producing another post, analysis, report or conference?
— What, for heaven's sake, do you suggest we do to transform humankind itsélf from a state of fundamental division to global unification?

Stating the obvious clearly doesn't cut it anymore. Let's move past that and start thinking outside the box here.

Thanks for trying.

(*) See Appendix IV.

2.8
SM300b
Throwing pebbles into a fast-flowing river

Helmond, summer of 2023.

This is exactly my 300th post here on LinkedIn, since I published my 6th book in December 2022: *De mens als grens — Over de onbuigzame barrières van ons bestaan* ('Our Inner Limits - On the Unbending Barriers of Being'). Each post contains about 500 words, so written in 6 months. That's 150,000 words in total, 6,000 a week, 800 words a day. However, the point I want to make in this post is not about the quantity, but about the quality. All in all, it may seem like a lot, but with an average reading speed of 250 words per minute, each post will only take you a few minutes to read.

By the way, when writing a post I do NOT adhere to the Ten Commandments of the Almighty Algorithm at all: how often you should post, how much you should like and tag, how long your post should be, what you should and shouldn't write, why you shouldn't edit too quickly, and so on. And that's why I have no reach at all! No one gets to see my posts, no one reads my shit. Well, no one — of course I do have a small crowd of loyal followers, to whom I convey my heartfelt thanks.

My posts are little more than pebbles in a fast-flowing river and sometimes I wonder why the heck I keep throwing them in. Because for a moment there is a splash and a circle, but soon the river of knowledge, information and trivialities rushes on. But I don't write for the algorithm! “For whom dó you

write then?" you will ask. Because nobody is going to read my last book either ('much too thick! - 'way too long!' - 'no pictures!') and everything just seems to transpire as if nothing really matters. So, why bother?

— First, I also save all my posts on my website (*).
— Second, all my publications are based primarily on my life motto: "I did it while I still could and that's why I won't regret it at the end."
— Third: I love writing, shaping my thoughts, having my say and playing with language, form, structure, semantics and creativity.

(*) https://www.demensalsgrens.nl/kort-en-krachtig

That in itself is enough for me, everything else is 'nice to have'. For now, however, I have decided to take a break. The summer period has arrived and it's time to enjoy it. Sometime in September of this year I will pick up the thread again and you can again expect critical posts from me about people, groups and behavior and about individual, group, society and suprasystem.

It stops at this 300th post. With 150,000 words I hope to have made my point sufficiently for now. I wish you a nice, hopefully not too hot a summer.

PS I guess I couldn't stop writing posts after all. In the six months following the summer months of 2023, I added another 300 posts that now have found a resting home in these addenda. That's the way the cookie crumbles.

2.9
SM311
How to move your helicopter to the highest possible altitude

It is a persistent phenomenon that we address the many problems we have in the world from our particular expertise or from our specific point of view. If you only have a hammer, everything looks like a nail. However, sometimes we must fly our helicopter to the highest possible altitude to view our problems from above and literally see the bigger picture.

I saw a post from a passionate world citizen, worried about the mess we are making of our habitat and pointing out specific problematic areas. The analysis was solid, clever use of grammar and statistics and it obviously originated from a good heart.

This was my response:

“Spot on analysis, but incomplete. And yes, if we keep pumping CO2 into the atmosphere, keep dumping plastics into the oceans and keep exterminating other species, we’re doomed. Neither one is the core problem though. They’re all collateral damage, consequences of something else, sub-symptoms of symptoms of larger issues.

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 (*). The problems you discuss are not core problems in and of itself, they are sub-symptoms of the symptoms of overshoot.

Overshoot is not just beginning. It has been going on for over half a century now. Currently we are in the accelerating phase of that process. The human population is growing with about 1% each year. That's 220.000 new human beings every day, 80 million each year. That will bring us from 8 billion people to 10 billion in 2050.

All of these new human beings want to get rich, healthy, happy and grow old. Nobody wants to decline or reduce. We all want to at least keep what we've got, preferably get a little more. It's simply unsustainable. But it is also unsolvable. Because our basic urges — survival and procreation — are hard coded in our genes and brains. Rich or poor, powerful or powerless, on average, and on a global scale, we all act the same, everywhere.

Our planet is finally saying 'enough is enough'. And it's completely indifferent to the consequences for the human species. But I guess you feel the same way and I applaud you for that. I just wanted to point out that it is sometimes useful to push your helicopter to the highest altitude, to avoid losing energy on symptoms fighting.

In the meanwhile, keep up the good work!" (*) See Appendix IV.

https://www.managementboek.nl/boek/9789083207742/de-mens-als-grens-bart-flos ('De mens als grens' on Managementboek)

2.10
SM312
We are not *Homo sapiens*.
We are *Homo infantilicus*.

I saw somebody ranting about the absolute ridiculous situation we as human beings have brought ourselves into, destroying our living environment on the only planet we've got. It was an emotional plea to come to our senses and finally actually dó something about it.

This was my response:

"Your rant is justified. Overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat, is our overarching Big Problem. Environmental pollution, destruction of the biodiversity and climate change are mere symptoms of overshoot, a process that started over half a century ago and is currently in its accelerating phase.

I'd like to provoke the issue here, if I may. This is a 'list' of things that need to happen to actually dó something about overshoot:

1 — All poor people must remain poor
2 — All rich people must abdicate their wealth
3 — Population growth must become population decline
4 — Economic growth must become economic decline
5 — We all must decrease our income by 20%

6 — We all must give up 50% of our savings
7 — We all must go in complete lockdown for another ten years

That is the energy-equivalent of our collective effort to mitigate overshoot. Currently there's no consorted global effort that even comes close to this combined set of actions. If it wasn't so serious, we would all have a good laugh about it. Each of these seven points are in and of itself already a frontal confrontation with our existential problems, but together they represent an impossible undertaking.

Allow me to clarify.

In 2020, the worst year of the Corona pandemic, we reduced CO2-emissions of fossil fuels and industry by a mere 7%. But that was not because we wanted to. It was because our hand was forced. We had no choice. And we protested it fiercely all the way through. The very next year we already compensated for our 'losses and the year after we surpassed greenhouse gas emissions of 2019. Last year we emitted more than ever before. If we want to reduce our global emissions to zero — currently over 52 gigaton of CO2-equivalent yearly — we would all have to go in global lockdown for 20 years in a row, without letup!

The human population is growing with about 1% a year. That's 220.000 new human beings added to the equation every day, 80 million per year. All of these new human beings will want to get rich, healthy, happy and grow old. Nobody wants to decline or reduce. Everybody wants to at least keep what they've got, preferably get a little bit more.

It's simply unsustainable. But it is also unsolvable. Because our basic urges — survival and procreation — are hard coded in our genes and brains. Rich or

poor, powerful or powerless, on average, and on a global scale, we all act the same, everywhere.

The atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have entered a state of cascade failure, the prelude to suprasystemic collapse. That's our planet saying, 'enough is enough'. And it is completely indifferent to the consequences for the human species. And yet still we keep on pumping 150 million tons of CO2-equivalent into the atmosphere every day.

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

2.11
SM313
When the world turns to the right, history repeats itself

In these worrisome times of environmental pollution, biodiversity loss and climate change it is quite disconcerting to watch the leadership, politics and economics of the world shifting to the (extreme) right. It is a world where 'science is just an opinion' and where 'climate change is just another hoax from the left woke elite'.

The developments in the USA with the Republican Party, shifting more and more to the right under the influence of a disturbed wannabe-dictator and two times impeached, four times indicted former president, are especially concerning, since they seem to advocate a political system that resembles a theocracy more than a democracy.

I follow the news in the USA with great interest, because if it is possible to lay the groundwork for a dictatorship there, it can happen anywhere. This is particularly frightening development, because these jerks to the right always go hand in hand with an anti-science sentiment and a craving for farfetched conspiracy theories and a disdain for facts and evidence.

Watching the news and a few brilliantly sharp documentaries on the matter and observing a tendency to 'bith-side' the issues and underestimate its

dangers for democracy, stability and peace, I found a few quotes that seemed particularly applicable:

- *"War is peace. Freedom is slavery. Ignorance is strength."*
- *"Power is in tearing human minds to pieces and putting them together again in new shapes of your own choosing."*
- *"Not merely the validity of experience, but the very existence of external reality was tacitly denied by their philosophy. The heresy of heresies was common sense."*
- *"You had to live—did live, from habit that became instinct—in the assumption that every sound you made was overheard, and, except in darkness, every moment scrutinized."*
- *"Don't you see that the whole aim of Newspeak is to narrow the range of thought? In the end we shall make thoughtcrime literally impossible, because there will be no words in which to express it."*
- *"How could you make appeal to the future when not a trace of you, not even an anonymous word scribbled on a piece of paper, could physically survive?"*
- *"'Who controls the past' ran the Party slogan, 'controls the future: who controls the present controls the past.'"*
- *"For the first time he perceived that if you want to keep a secret you must also hide it from yourself."*
- *"But it was alright, everything was alright, the struggle was finished. He had won the victory over himself. He loved Big Brother."*

And yep, they are all from George Orwell's '1984'.

2.12
SM341
Why the Dalai Lama's wisdom is not going to help us

Every once in a while, somebody posts a quote from the Dalai Lama, full of 'knowledge and wisdom', as though he was some all-knowing being that we should not dare to question. Usually, it is posted without any further comment, as if to say:

"There! Gotcha! See? That's it. That's right. That's all of it. Enough said'.

With all the extreme weather and climate disasters washing over the planet, the Dalai Lama's infinite generic wisdom is reiterated, rehashed and reshaped to fit the narrative of climate change, environmental pollution and biodiversity loss, or any kind of crisis, conflict, disaster or war that we cannot fully understand.

Let me, with all due respect, dare to critique the all-wise and all-seeing Dalai Lama. Because a lot of his 'wisdom' just doesn't add up if you try to make sense of it. And it doesn't help. Either it's just a collection of open doors, kitchen tile wisdom or pseudo-holy one-liners, or it just not true. Take this one for example. Let's put it under the looking glass, shall we?

"The planet does not need more 'successful' people. The planet desperately needs more peacemakers, healers, restorers, storytellers and lovers of all kinds."

Why the quote/unquote in 'successful'? What does that mean? That the world actually doesn't need *unsuccessful* people? That's an open door right there. And what is successful? What do you mean by that?

If the planet desperately needs more 'peacemakers, healers, restorers, storytellers and lovers of all kinds', don't they need to be successful in their fields of expertise: making peace, healing, restoring, telling stories, making love? What if their lousy at it? Apparently, they are, by the way, because clearly, we don't have enough of them.

And more importantly: after we nod at so much profound wisdom, and look at each other in agreement and smile, what then? I mean, nów what are we going to do? How do we execute such a plan? Where do we find them? How do we get them to connect across the borders of two hundred nations worldwide and come up with some kind of plan that doesn't involve hugging trees, chanting love songs or cleansing each other's auras?

We can exchange all the campfire-kumbaya-cliches in the world and dazzle each other with profound statements about infinite wisdom and what not, but as long as we still increase…:

- *Global CO2-emissions from 37 gigaton in 2022 to 43 gigatons by 2050;*
- *Global atmospheric CO2-level from 418 ppm in 2022 to 500 ppm in 2050;*

- *Global average surface temperature from 1,2C above preindustrial levels in 2022 to 2,5C in 2050;*
- *Global World Product (GWP), the sum of all GDP's, from $ 104 trillion in 2022 to $ 130 trillion in 2050;*
- *Global World Population from 8 billion people in 2022 to 10 billion people in 2050.*

…none of that matters one bit. No amount of peace makers, healers, restorers, storytellers or lovers of all kinds will change any of that. None of them will reduce the amount of weather extremes and climate disasters that wash over the planet with increasing frequency and intensity.

We really should stop spreading these empty, useless and pointless statements around if they do not effectively curb population growth, cut greenhouse emissions and reduce carbon dioxide levels in the atmosphere. The Dalai Lama is not going to solve our existential problems with his blessings. And we, the human species, are not going to save ourselves by spreading his wisdom around.

We already have all the wisdom we need. We already know what to do for half a century. But we're simply not doing it. We know exactly what we're doing wrong and we damn well know how to fix it. We're just not doing it. We need to find out why that is before we are able to meaningfully change the future and the survival of the human species on this planet.

2.13
SM393
What are we going to do differently this time?

Someone posted a link to an article suggesting 'that we only have to plant trees on a surface equal to a billion hectares to solve all of our problems'. (I'm paraphrasing and exaggerating a tad here).

Big numbers. They tend to dazzle us. But it never hurts to challenge these kinds of proposals and ask a couple of curious questions. This was my response:

"I hate to burst the bubble here, but a billion hectares equals to ten million square kilometers. That is the size of Europe in its entirety! That calls for three simple questions:

1. *Who's going to do it?*
2. *Who's going to pay for it?*
3. *Who takes the lead on it?*

The current human population on this planet is eight billion people, spread across two hundred countries. Each of these countries has a separate set of political and economic drivers, determined by culture, history and geography. Each of these countries has national drivers that supersede global ones. You may want to compare this with the analysis that we 'only' need one and a half billion hectares of land full of trees to compensate for all of humankind's CO2-

emissions. That is equal to five times the size of India. There wouldn't be any land left for agriculture.

We must stop with these theories and false hopes. Before we come up with ány kind of solution to 'save human civilization' we must start to ask a different set of questions all together. Like why we keep saying that climate change is getting worse every year, we author reports and organize conferences, but nothing, on an average and on a global scale, changes.

Why is that?

The fact of the matter is, that we already knów for more than half a century what we as human beings do to our environment, the biodiversity and the climate. Countless investigations, reports and conferences. Since the IPCC started publishing its reports in the 90s, the emission of greenhouse gases has steadily increased and it still does. Estimated CO2-emissions for industry and fossil fuels for 2022 is 37 gigatons.
All these climate mitigation efforts have done nóthing for the level of CO2 in the atmosphere, which is risen to 420 ppm. None of the hopeful theoretical initiatives to save the planet have done ánything to change our habits on average, and on a global scale. The next two decades we increase the world population with another two billion people, all individuals that want to get rich, healthy, happy and old.

We're asking the wrong questions. Because climate change, the pollution of our environment and the destruction of our biodiversity are not core problems. They are symptoms of a far greater issue: overshoot. I'm not saying we're doomed per se. There still things we can do. But we first need to acknowledge

our inner limits as a species. We have to start asking ourselves the main question at the beginning of any kind of change endeavor:

'What are we going to do different this time?'"

https://www.science.org/content/article/adding-1-billion-hectares-forest-could-help-check-global-warming

2.14
SM403
We are a schizophrenic species

Environmental pollution, biodiversity loss and global warming are oftentimes, if ever discussed, regarded as core problems in their own right. That is false. They are symptoms of a superior, overarching problem: overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat. It's not that overshoot is just beginning; it's been going on for over 70 years now. Overshoot is always met with collapse; it's locked into the system. For us that implies the collapse of our suprasystemic infrastructure.

The reasons why overshoot is not dominating all of our news media outlets every day are various but if I had to define the most important one, I would say that it is the nature of the beast, it's species specific.

We are quite the schizophrenic species. On the one hand we are capable of cooperation on a global scale. We dominate the world; dominate all other species and we have a profound impact on our habitat. Everything is scaled up to a point of no return. On the other hand, we are inherently single-minded, short-sighted and selfish. When we cooperate, it is always in our own best interest. When we scale up, we only do it to increase our own wealth, power, influence and control.

This might not seem to be the case when we regard our daily lives. We all exist, live, breath and breed within small groups of family, household, friends, colleagues and teammates. We struggle with the challenges of life: school,

work, health, stress, dept. Our daily chores keep us occupied and our problems and challenges close by in both time and geography are what drives us. Existential problems such as overshoot are way above our head. It's too big. We are not able to grasp it, let alone process it on its merits.

That's a big problem.

Because we are so distracted by the burdens of life we don't see where we're heading. We are all in this together but we are unable or unwilling to see past our own boundaries. We are our own barrier, inherently limited and constrained.

The collapse of our infrastructure is eminent. That sounds ominous and it should. But we will not go out in a bang. The extinction of an entire species takes time. Even if the deterioration rate is accelerated it might still take something like 3 or 4 generations, say a hundred years or so, to complete the job. During those years each generation will be worse off than the last and will be less happy and healthy. It's gradual but finite. This generation will already witness the beginning of the end, our children will live on the edge of hell and our grandchildren will inherit a world that is devoid of prosperity and wellbeing.

That is the nature of the beast. That is what we're doing to ourselves right now. Can you believe it?

Chapter 3

About climate stupidity

3.1
SM267
Proof of our collective stupidity

If you were asked to wear a t-shirt with a depiction of pending doom, say a graphical representation of the rise of the average global surface temperature over the past hundred years, going from left to right from arctic cold blue to devilish dark red, would you?

I wouldn't.

No, I will nót wear these 'doomsday-stripes' and I wrote a post about it:

https://www.linkedin.com/posts/bartflos_showyourstripes-activity-7077156535025442816-5Fwr?utm_source=share&utm_medium=member_ios

Frankly, it's ridiculous. If it wasn't so serious it would be hilarious. These stripes show our failure as a species. They show our inability to act as one to

safeguard our habitat. Wearing these stripes, or projecting them on buildings and objects, is like saying:

"Look how incompetent we are!

We've known about this problem with fossil fuels and greenhouse gasses for over a century, we've known about the problem of overshoot or overconsumption (*) for half a century and we've seen the extreme weather and climate disasters roaming our planet in increasing frequency and intensity.

Sure. We saw. We saw and didn't do diddly squat about it! We talked about it, yeah. At length. We produced countless books, reports and analysis and organized many a conference. We talked about it until we were blue in the face. But we still kept burning fossil fuels, kept emitting greenhouse gasses, we went on polluting the environment and kept on destroying the biodiversity.

Look at these stripes! They are proof of our collective stupidity!"

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

3.2
SM319
Bonhoeffer's Theory of Stupidity explained

If you have 6 minutes to spare, it might be useful to watch this video. It will relieve you of the agony of dealing with climate change deniers, conspiracy theorists and anti-science advocates: https://youtu.be/ww47bR86wSc

This year, 2023, will mark up a pivotal moment of change for the human species. Our atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have entered a state of cascade failure, the prelude to suprasystemic collapse. Extreme weather and climate disasters are washing over our planet with increasing frequency and intensity and the evidence is right in front of our eyes.

It's not happening in some distant future some place far away. It's happening right now, right here, in real time. Yet still, there's lots of people in denial, saying that 'It was also very warm in 1976' or 'Look! A snowball! Where is climate change now?' or 'The climate has always been changing'.

If you want to understand why such a posture is still possible, amidst overwhelming evidence of pending doom, this video might open your eyes, especially because it also explains why stupidity in combination with nationalism, totalitarianism and war is the most dangerous cocktail of human attributes ever displayed.

3.3
SM324
Why climate deniers are smarter than us

You have to hand it to them: climate deniers know their stuff. When you are just about to list the facts of climate change, you are interrupted with an argument that relegates the entire climate science to the realm of fiction. Suddenly you are speechless, because well, there are some valid arguments put forward. But who is right?

Of course, the facts are right. Sure. But being in the right doesn't mean being right. But why is that climate denier so smart then? Because he seduces you to a lower level in the discussion hierarchy.

First and foremost: environmental pollution, destruction of the biodiversity and climate change are symptoms of overshoot or overconsumption. That is the highest level of the discussion and the only level we should be discussing at all:

— Level 1
The overarching problem: overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat.

With the next logical step:

— Level 2
The symptoms of overshoot: environmental pollution, destruction of the biodiversity, climate change.

Now we can go one level deeper into the discussion:

— Level 3
Plastic pollution, decline of plant, insect and animal population, felling of forests, emission of greenhouse gases, acidification of oceans, melting of polar caps and glaciers, increase in average temperature in oceans and on land.

— Level 4
Microplastics in the Atlantic Ocean, insect population in Europe, rainforests in Brazil, CO_2 emissions in the Netherlands, coral reefs in Florida (USA), ice extent in the North Pole, heat waves in India.

— Level 5
A chapter, paragraph, sentence, word choice, spelling, premise or calculation in a research report, scientific study, article, essay, video, podcast, social media post, news item.

— Level 6
Diverting from the topic in question, suddenly starting to talk about something else, citing an unrelated wrong somewhere else, ignoring the content and responding to the form, reacting indignantly, displeased, indignant, irritated and angry.

— Level 7

The ad hominem attack, the personalization, conspiracy theories, the 'hoax', the 'woke elite', the 'deep state', the secret world government. attacking the opponent with angry, sometimes aggressive language, being derogatory, threatening, bluffing, cursing and ranting and other antisocial behavior.

The climate denier is not interested in the first two levels. He will tempt you to immediately descend to level 3 and lower, for example by pointing out an error in a specific research report on the reduction of the bee population in the Netherlands. If you are not concentrated, he will even push you so far that you start discussing a specific paragraph in a specific chapter of a specific report, which contains an error in one of the many calculations.

Once you've descended this far and become completely bombarded with irrelevant details, you're only one step away from the end of the discussion: levels 6 and 7. You've entered the deep pit of distraction, deception and doubt, an environment in which, with every move, you sink deeper into the swamp of climate denial and anti-science. And as the sulfur-smelling mud rises to your lips, you realize that you have fallen victim to a very clever way of distraction from the real problem at the only correct, highest discussion level: overconsumption.

You have been forewarned.

3·4
SM331
The wrong sigh of relief

Imagine a filthy rich CEO of a fossil fuel multinational, say, an oil company, or a coal conglomerate, or a natural gas syndicate, being aware of the disconcerting events unfolding all over the planet (after all, he only has to look outside the window to see), saying to himself:

'Oh fuck, that's not good, it's spiraling down fast, what must I do?'

He turns his chair towards the assembled board of directors and says:

'Well, there you have it. Clearly, it's all going to hell out there. What shall we do?'

A disturbing silence follows. The executives look at each other, not sure what to say, scribbling down doodles, sipping water, coughing.

You can almost hear them think:

'What does he mean, "what shall we do"? Reduce our production output by 10% each year? Dismantle our infrastructure and transform to a more sustainable form of energy? Abandon ship?'

The CEO sighs and says:

'There's only one viable way forward: we need to increase output, maximize profit and buy back stock to raise shareholders value. All in favor say "aye"'

The board sighs in relief and all vote in favor of the motion.

3.5
SM400
Mantra's may hold the truth, but do they fix anything?

I saw a post highlighting six specific points:

1. *The earth, 'our earth' is alive.*
2. *We are intrinsic to this living world.*
3. *We mustn't deny or repress our pain for the world.*
4. *We must allow our ourselves to experience our feelings of pain for the world.*
5. *We must reconnect with life.*
6. *We must act on behalf of the Earth Community.*

This was my response:

"First of all: yes, that's right! Spot on. Let's go! [elevator music plays 'Girl from Ipanema']

Yes, these six mantras hold the truth. Our world is dying. The facts are undeniable: inequality, division, intolerance, polarization, environmental pollution, destruction of the biodiversity, global warming — it's unbelievably bad. So, yes, thanks for sharing. But we knów this already, analyzed it to the bone. We have produced a million books, scientific studies and conferences

about it. And we have shared millions of documentaries, movies, videos, poems and songs about the atrocities of mankind.

All true. Now what?

Imagine picking up a smartphone and scrolling through the endless timelines of social media and news apps. It's been a busy day with work, hobby's, fitness, partner, family, household, friends, colleagues, teammates and stuff. Struggling with income and debts, health issues, relationships, technology and the weather, we're terribly busy. And yes, occasionally we worry about the news of the world. And then we read this post about 'our living world' and the pain we — apparently — must feel for it and that we must reconnect and stuff.

What do you think will happen? That a personal transformation suddenly and miraculously sets in? That we drop on our knees in empathy and agony about the state the planet is in? That we will hence forth reconnect and feel and heal and all that? What do you think will be the first thing that we do after reading a post like this? We immediately go back to what we were doing: increasing our income, improving our health, try to be as happy as possible and live as long as we are able.

We know what the problem is. We must stop reiterating it. Because no poem, esoteric statement, book, report or conference ever written in the history of mankind has stopped the machineries of our growth-based economy or the emissions of greenhouse gasses. None!

Look, this is what we réally need to do to mitigate overshoot or overconsumption (*), our real existential problem:

8. *All poor people must remain poor.*
9. *All rich people must give up their wealth.*
10. *Population growth must become population decline.*
11. *Economic growth must become economic decline.*
12. *We should all reduce our income by 20%.*
13. *We all have to give up half of our savings.*
14. *We all have to go into complete lockdown for another ten years.*

That is the energy equivalent of the joint effort we must make to mitigate the consequences of our own actions. Currently, there is no effort at global level that even comes close to this list of seven. Now I ask you: what is the first thing you're going to do after you finish reading my post?
Just give it a think, that's all I ask.

(*) When a population exceeds the carrying capacity of its habitat. See also Appendix IV.

3.6
SM410
What makes us so mind-bogglingly stupid?

A saw a post from someone deeply worried about the accelerated tempo in which climate change is manifesting itself all over the planet. You could feel the helplessness seeping through, slightly elevated by the fact that we already know what to do and we only need to snap to it.

This was my response:

"Your post is spot on. Thanks! And yes, global warming is accelerating for sure.

- And yes, the arctic region is warming 2 to 3 times faster than the global average and the European continent twice as fast.
- And yes, the CO2-emissions for fossil fuels and industry in 2022 were a staggering 37,5 gigatons, the highest ever. The CO2-level in the atmosphere has risen to 420 ppm.
- And yes, although the 200 countries in the world have promised to reduce CO2-emissions to zero, in reality they will rise to 43 gigatons by 2050. The CO2-level will have surpassed 500 ppm by then.
- And yes, we are currently processing 100 million barrels of oil, 22 million metric tons of coal and 11 billion cubic meters of gas every day (!) of the year, to sustain our neoliberal, capitalistic, consumeristic, growth-economic free market.
- And yes, the average global surface temperature has risen to 1,2 degrees C above preindustrial level and will, if we keep this up, surpass the 1,5-

degree warming marker around 2035 and the 2 degrees marker by 2050, further rising to perhaps 3 or 4 degrees warming by the end of the century.

- And yes, that will most probably trigger climate change tipping points that will take us from climate change to climate disruption to a 'runaway climate', which will take it far beyond our means of intervention.
- And yes, environmental pollution, deterioration of the biodiversity and climate change are actually symptoms of a far bigger problem: overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat.
- And yes, we are with 8 billion people on this planet, currently increasing with about 1% each year, bringing us to 10 billion in 2050.
- And yes, all of these people want to be rich, healthy, happy and grow old.

You are right that we already know what the problem is. We have analyzed it to the bone. We also know exactly what we need to do. But we clearly don't do it. I've studied the matter for two years and I've authored a whole book about it. However, no book, post, study or conference has ever stopped the growth-economic machineries.

We must understand the nature of the beast first: humankind. What makes us so mind-bogglingly stupid that we cause our own extinction? Why don't we fix the damn problem? What's wrong with us?

PS My book and the accompanying website are in Dutch. But you can use Google Translate to transform the website into the language of your choice. It will probably go wrong with the typical Dutch compilations / compositions I use and it will miss the Dutch idiosyncrasies, but you'll get the gist of it and the

structure of the website will be maintained. Besides, you can always see the original in Dutch by highlighting any text(block). Thank you.

Chapter 4

Science, truth and reality

4.1
SM251
Our bizarre believe in emission reduction miracles

I keep seeing these graphs floating by with the steadily increasing emission of CO2 on the left side ('historic emissions') and the required reductions to reach 'net zero emissions' in 2050 (or to 'stay below the Paris Agreement of a maximum global warming target of 1,5C') on the right side.

You see this single black line on the left going up and up, just as you would expect from a population that grows with 80 million new consumers each year, demanding ever more energy to keep everything going. And then you see a multitude of grey lines, depending on the particular reduction scenario, some going skyways in a dramatic fashion, but most of them dropping sharply towards that X-axle, in ever more steep vertical angles.

Each year the 'actual emissions curve' goes up further up and the 'emission reduction curves' keep aiming for that miracle wonder year 2050, turning into almost vertical cliffs of both hope and despair. If you extrapolate that motion,

you will have to find some solution that ignores the fabric of time and space and allow some kind of S-turn, going back in time and then forwards again, to fix our problems. That's the true miracle implied here.

'Do you see?' it seems to say to the ignorant observer, 'It's not too late. We can still dó something!' I don't see how we can take this seriously anymore. Because never éver in the history of mankind did we manage to reach such a level of collective behavioral change. It never happened and it never will. Only a global disaster of some kind might achieve that, such as a major financial crisis. Or a pandemic.

In 2020, the first year of the Corona pandemic, we reduced worldwide CO2-emissions by just about 7%. But that was in total lockdown, all of us, everywhere! And it wasn't out of free choice: our hand was forced. We hád to stay indoors, close schools and withhold ourselves from gatherings of fun and culture. We accepted that fact with our teeth grinding. As soon as we could, we took to the streets and to the social media to protest our forced collective prison. However, as soon as we possibly could, we bounced back. Within one year we emitted more greenhouse gasses than ever before.

Everybody wanted to get back what they had lost. All turnover, revenue and growth loss had to be compensated (and all of the time of fun, leisure, recreation and holiday travels we missed) and we all hastily threw ourselves back onto the track of our neoliberal, capitalistic, consumeristic, growth-economic free market. That 7% reduction that we had to endure was washed away within one year. Every economic curve went back to the previous trajectory, leaving only a small gap, which looked more like a glitch than an effort to seriously change our habits.

Do you see? We need to voluntarily and freely go in total lockdown for another 10 years to reach 50% reduction and another 10 years to reach zero emissions. We all need to do exactly the same as we did during the pandemic for another 20 years, to reduce the 37,5 gigaton of CO2 of fossil fuels and industry to zero. For twenty years straight. And then we would still be faced with an atmospheric CO2-level of about 470 ppm that we need to reduce back to 200-300 ppm in order for our species to survive.

I just can't believe that we keep conveying that there is still a chance that 8 billion people will voluntarily go into complete lockdown for 20 years to fix our existential predicament. If it wasn't so damn serious it would be hilarious. And it's beginning to look more and more like a real live disaster movie with every day passing.

I can't believe we are this obtuse. Collectively. Idiotically. Consistently.

"We really fucked it up this time / it's happening in real time" ('Don't Look Up").

4.2
SM277
How electric vehicles are going to save us

I saw yet another post and article about the rise of EV's (Electric Vehicles) and how this is going to solve all of our current transportation problems and the CO2-emissions attached to it. It was accompanied by graphs with a steep increase of numbers of electric vehicles sold worldwide.

This was my response:

"Excellent analysis. But we're going about this the wrong way. Currently it is implied that the only way forward is to replace all 1,6 billion vehicles on earth by electrical ones. But I guess that isn't necessarily meant to address our concerns about climate change. It seems to me it is intended to save the automobile industry, rather than the environment, biodiversity or climate.

Based on the provided data in the article, instead of emitting 88 gigaton of CO2-e (CO2-equivalent, the effect of all greenhouse gases combined, translated into its effect as it were only CO2) by all our vehicles and their life cycles combined, we emit 'only' 62 gigaton of CO2-e.

Is that progress? I think not.

To date we still produce 190.000 non-electrical vehicles every day. They will be riding around our planet for at least 20 years or so, emitting CO2. On top of that, we burn 100 million barrels of oil, 22 million metric tons of coal and 11

billion cubic meters of natural gas every day, adding 150 million tons of CO2-equivalent to the atmosphere daily.

We produce, on a daily basis, 1 million metric tons of plastic, 5,5 million metric tons of waste and 11 million metric tons of cement. The CO2-level in the atmosphere is at 420 ppm, rising to 500 ppm in 2050. In order to survive as a species, we need that level back down to 200-300 ppm.

The current world population is 8 billion, growing to 10 billion in 2050. All these people want to get rich, healthy, happy and grow old. The only way forward is population decline. At 1% per year, we'll be at 6 billion in 2050 (a good start) and 1,3 billion by 2200 (the ideal number).

Think about it. That's all I ask."

4.3
SM280
Rejoice!
Oil investments are going down: salvation is near!

I saw an optimistic post and article that reported on the future of oil with reference to solar investments. In and of itself it looked like a piece of well-needed good news. Projected into the future namely, oil investments would go down to $ 200 billion and solar PV (Photovoltaic Technology) investments would skyrocket to a mindboggling $ 1.600 billion in 2033, ten years ahead of the point of measurement. It suggested that we just had to hold on and everything would be right with the world.

But this is like assessing the condition of a room by looking through the keyhole or looking at an entire landscape with a telephoto lens or studying the condition of a warehouse floor through a microscope. Ok, enough with the metaphors, what am I saying here?

Look, I don't want to be a party pooper here and I'm not p*ssing on your parade. But there's something utterly wrong in the way we deal with our existential predicament. Environmental pollution, destruction of the biodiversity and climate change are mere symptoms of overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat (*). Overshoot is the overarching problem here and we're trying to mitigate it by looking at only small parts of it each time.

— In 2022, CO2-emissions for fossil fuels and industry were 37,5 gigaton, rising to 43 gigaton in 2050 (a gigaton is one billion ton).
— Current CO2-level in the atmosphere is 420 ppm, rising to 500 ppm in 2050. In order for the human species to survive, we need to get that back to 200-300 ppm.
— Current global average surface temperature is 1,2C above preindustrial levels, expected to rise above 1,5C before 2030 and cross the 2,5C barrier in 2050.

Each CO2-molecule that we add to the atmosphere will stay there for thousands of years. It will haunt us down for many generations to come, even if we were to stop emitting greenhouse gasses right nów. But we don't.

— We burn 100 million barrels of oil, 22 million metric tons of coal and 11 billion cubic meters of natural gas every day, adding 150 million tons of CO2-equivalent to the atmosphere daily.
— We produce, on a daily basis, 190.000 non-electric vehicles, 1 million metric tons of plastic, 5,5 million tons of waste and 11 million tons of cement.
— On a daily basis we add 150 million tons of CO2-equivalent (the sum of the effect of all greenhouse gases translated in the effect of CO2 alone) to the atmosphere.
— The current GWP, the Global World Production, the sum of all GDP's, is about 100 trillion dollars, rising to 125 trillion dollars in 2050.
— The current world population is 8 billion, growing to 10 billion in 2050. All these people want to get rich, healthy, happy and grow old. Nobody wants to decline or reduce. We all want to at least keep what we've got, preferably get a little more.

It's simply unsustainable. If we want to monitor progress on a global scale, to avoid 'symptoms fighting', we should always ask the following questions:

1 — When will the global CO2-emissions start to go down?
2 — When will the global atmospheric CO2-level start to go down?
3 — When will the global average surface temperature start to go down?
4 — When will the GWP, the sum of all GDP's, start to go down?
5 — When will the world population start to go down?

And for each of the five we should ask a follow-up question: …and what are the projections in terms of the 'rate and angle of descent'? Because all of these five aspects of overshoot are only going up and up, as they have for the better part of the last century.

We are nowhere near a global strategy to mitigate overshoot. If we keep looking through the keyhole, the telephoto lens and the microscope to get the bigger picture, we won't see the room burning, the landscape deteriorating or the warehouse floor crumbling. If we don't act like firemen, rangers and we won't have a room left, let alone a house.

Think about it. That's all I ask.

(*) See Appendix IV.

4.4
SM281
Getting our models, graphs and depictions straight

The *Ellen MacArthur Foundation* does an excellent job analyzing our existential predicament and promoting the circular economy. But sometimes such a large organization gets it wrong when it pertains to the issue of overshoot or overconsumption in relation to the circular economy. I was forwarded a post an article which showed a circle with the 'Circular Economy' in the middle, surrounded by the 'Triple Planetary Crisis', being environmental pollution, destruction of the biodiversity and climate change. It had me confused.

This was my reaction:

"I don't understand this depiction. I believe it to be wrong, or at least incomplete. 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 encompasses the 'Triple Planetary Crisis', so, in the center of this depiction it should read 'Overshoot or overconsumption'.

The circular economy is how we (might) *mitigate* overshoot. Therefor a separate picture should encompass the three main elements of a circular economy:

1 — Eliminate waste and pollution
2 — Circulate products and materials (at their highest value)
3 — Regenerate nature

So, we need two depictions here:

— One describing the overarching existential problem of human civilization: overshoot, with its three symptoms.
— The other one describing the coordinated global solution to this problem: the circular economy with its three (sub)solutions.

Symptom fighting is a dangerous thing, because it suggests a level of progress that just isn't there. Here are some examples:

— Lengthy articles about biodiversity destruction, sometimes only focusing on diminishing insect populations.
— Extended analysis of plastics production and plastics waste, or of PFAS pollution, or of oil spills.
— Disturbing news about average ocean temperatures, melting of polar ice, the increasing frequency and intensity of heat waves, droughts, forest fires and downpours and floodings.

Whilst these are in a sense serious 'problems' in and of themselves, they are, if you look at the bigger picture at least, nevertheless merely symptoms. Overshoot is driving all of our existential (sub)[sub]{sub}-problems. Without a coordinated global effort to mitigate overshoot we'll be stuck fighting symptoms until the damage is irreparable.

At this point in time there are already signs that we've crossed the point of no return, that we've passed the 'elbow' of the exponential curve. Overconsumption is always met with collapse. It's locked into the system. The atmosphere, biosphere, lithosphere, hydrosphere and cryosphere seem to be entering a phase of cascade failure.

Cascade failure is the prelude to suprasystemic collapse. That won't be a linear process mind you, it will be totally unpredictable. What we're currently seeing in the world is unprecedented. It has the entire scientific community extremely rattled and flabbergasted. That's never a good sign. The least we can do is to get our models, graphs and depictions straight.

(*) See Appendix IV.

4.5
SM295
Risk management for doomers

Risk management is a well-known concept in many a business and certainly in the field of project management. Managing and mitigating risks doesn't have to be limited to local business levels though. We can also apply it at the meta-level, to encompass an entire suprasystem: eight billion people on the planet Earth. So here is a quick refresh in risk management, if I may.

A risk is determined by three factors:

1 — Probability
What are the chances this particular event will occur in the future?

2 — Impact
If the event does occur, what is the expected impact (the consequences in terms of damage to the system). Let's define the impact in five ways:

- *Negligent*
- *Low*
- *Medium*
- *High*
- *Catastrophic*

3 — Mitigation

What can we do (3a) to prevent this risk from turning into an actual event and (3b) to limit the damage and/or repair the damage (to restore the system to its original state or the closest proximation thereof) if it does occur.

Now look at our current existential predicament in terms of risk management. 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 (*).

We have waited too long to do something about it and now we're too late. The atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have entered a state of cascade failure, which is a prelude to suprasystemic collapse. Applying theory to practice:

1 — Probability of collapse: 100%
2 — Impact: catastrophic (mass destruction and mass extinction)
3 — Mitigation: limited and temporary damage control

Nów what are we gonna do?

(*) See Appendix IV.

4.5
SM296
Why renewables can't keep up with deterioration

The news is inundated with rapid developments in renewables: wind and solar, electric vehicles (EV's), new battery technology, carbon capture and storage (CCS) facilities – the sky is the limit. It all suggests a level of progress that might not even be there. Because global greenhouse gas emissions, the global atmospheric greenhouse gas levels, the global average surface temperature, the GWP (the sum of all GDP's) and the world population are still going up, not down.

Let's combine this with the fact that the damage to our infrastructure as a result of climate change is increasing rapidly and insurance companies are increasingly hesitant to cover it. We think that it will all get better as we develop innovative technologies and everything will return back to normal once we have implemented them. We, the human species, we completely dominate the planet, keeping our growth-economy going, to sustain an ever-growing population. Fossil fuels are still the most effective way to accomplish that.

And now consider this: almost all of our infrastructure is above ground! Power lines, gas plants, oil refineries, coal processing facilities, solar and windmill parks, carbon capture machinery and air-conditioning units; they're all exposed to the atmosphere. By now, we have pumped só much greenhouse

gasses into the atmosphere, that we have entered a state of cascade failure, which preludes suprasystemic collapse (*).

Extreme weather and climate change disasters are going to wipe out our above-ground-infrastructure in increasing frequency and intensity and we're still producing an endless amount of ever more disturbing climate reports, analysis, videos and conferences, and ever more hopeful messages that renewables technology is going to safe us. It's getting worse at every turn and the only thing we do is to talk and write about it, or to develop technology that doesn't scale up to the required scale and momentum to keep up with the deterioration of our living environment.

How crazy is that?

(*) 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. See Appendix IV.

4.6
SM301
Letter to a friend

Every once in a while, I have to blow off steam because of all the bad news that inundates my soul, adding to the pile of worries resting on my shoulders. And I'm not talking about news at the supralocal level, within my small social groups of family, household, friends, colleagues and teammates. No, I'm talking about existential worries, about the extreme weather and climate disasters washing over our planet, and the disturbing polarization between climate change deniers and climate change optimists, both equally unsuccessful in getting what they want.

Sometimes it helps to write it down, sharing those feelings of worry and doom. So that's what I did.

"Dear friend,

Thanks for sharing my concerns, I really appreciate it. What I find particularly frightening is that the atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have apparently entered a state of cascade failure, the prelude to suprasystemic collapse. And what I find most interesting is the way we treat this existential news: like any other news item.

People don't generally realize that there's something utterly idiotic about the way we cover the news. Our papers have the same size in terms of number of pagers and distribution of themes every day. And our evening journals always

have the same length. Think about it, it's quite bizarre. We squeeze the same amount of news items with the same amount of variability into our news outlets, independent on the severity of the news item.

True, when something truly catastrophic occurs — like 911 — we temporarily exceed that standard, but the rest of the time we seem to adhere to three basic principles:

1 — If it bleeds, it leads.
2 — Don't repeat the news.
3 — Try to draw as much likes and shares as you can.

The Canada wildfires, for instance, were in the news once, but they lasted for weeks. Every day there's some extreme weather or a major climate disaster event somewhere in the world, but only the worst ones appear in the news, and only once. And then we move on. We even apply that to the news that climate change is getting worse every day: say it once and then say something about the economy, or gossip about celebrities. All on one page or in one news outlet.

It doesn't matter how severe climate change is getting, we interchange it with economic news, about growth and decline, about a possible recession, about jobs, inflation and deflation. We mix it with celebrity news and trivial gossip and every once in a while, we try to convey hopeful messages of all the new technology that's going to safe us in the long run (or allow climate change deniers equal right to express their views).

What I'm trying to say is this: the only thing we should be talking about is overshoot or overconsumption! Every day, all day. The only thing we must discuss is the effects of the symptoms of overshoot: environmental pollution,

destruction of the biodiversity and climate change. Every day, all day, all the time, everywhere. Because we're taking about the collapse of human civilization. What could be more important than that? Or more urgent?

Our potential demise as a species should inundate, permeate and overflow the news, every day. It should be the only thing we talk about, all day. Not about the causes of the overarching problem of overshoot — we know everything there is to know about what is happening — but about mitigation, action, the execution of globally consorted and coordinated efforts to mitigate overshoot. But that doesn't fit the narrative of 'daily news'.

It's completely idiotic and bizarre. People in general and on average — I'm not talking about you or me, or climate scientists or activists — go about their business like there's nothing going on out there. They don't want to talk about climate change because it's boring and overwhelming and too hot to handle.

People ask me: "what do you mean when you say, 'cascade failure' and 'suprasystemic collapse'? That the world is coming to an end and we're all going to DIE?!" "Well," I reply, "Not instantly. It's not like a meteorite strike or an atomic bomb going off. It'll spread out over 3 or 4 generations, at least 100 years of exponential decay. This generation will witness the beginning of the end, our children will live on the edge of hell and our grandchildren will inherit a world that is devoid of prosperity and wellbeing". "Ah, I see". And that's it. Moving on. Back to our daily chores.

It's just too big of a topic. People in general can't imagine it's all going to hell. That the human species is lined up for extreme decimation and possible extinction. It doesn't penetrate our single-minded, short-sighted and selfish

mode of operation. Well, you know, S.O.S., Same Old Shit. I've published a whole book about it.

We will probably stay glued to our smartphone until the electrical grid fails. We'll be maintaining our food supply chains and stocking up our supermarkets until the very end. And we'll be buying stuff online and having it delivered to our doorsteps until our electrical grid fails.

Overshoot is happening in real time and it's getting worse fast. Planet earth is hitting back hard and we don't have an off switch. We don't have the technology to cool down the oceans, repair the jetstream or redirect the oceans conveyer belt of salt and fresh water. We are defenseless against heat domes, prolonged drought, extreme downpours and floodings.

The only thing we can do is repair the damage. But almost all of our infrastructure is above ground, exposed to the atmosphere. Power plants and power lines, oil refineries, gas plants, coal processing factories, solar and wind parks, air conditioning units — they're all exposed to the extreme weather and climate disasters that are hitting us ever more frequently and with ever more intensity. Insurance companies are increasingly hesitant to cover the damage. And the damage is getting bigger each year.

Needless to say, I'm quite worried. Disconcerted. Flabbergasted about our stupidity and ignorance as a species. But I've done my research. During those two years I've read over 300 books, scrutinized countless scientific reports and analyzed and studied hundreds of science-based websites. It has transformed me from an incorrigible optimist into a self-proclaimed 'confrontealist'. Because only a frontal confrontation with reality might open our eyes to what's coming. And we're totally unprepared for it.

Any way. Thanks for ‘listening’. It all kind of ‘flew from my fingers’ tonight, after a sweltering day of 34C and heavy thunder and hailstorms predicted for tomorrow.

Let’s keep in touch, sharing each other’s worries when needed.

Cheers, my friend”

4.7
SM307
Yes, you are perfectly right! But why? And how?

I saw yet another passionate post passing by about the impact of 'building activity' and 'urban sprawl' effecting the environment, biodiversity and climate. It ended with the platitude that it needs to be limited in order for us to move forward in a better world.

This was my response:

"Great finding. Spot on. Now please, humor me and answer these two simple questions:

— *How?*
How do we limit building activity and limit urban sprawl on a global scale?

— *Why?*
If it is so clear what we need to do, if the solutions are right at our feet and obvious to the core, why don't we 'just do it', or: why haven't we started already?

Please extend this fine analysis with a globally consorted and coordinated SMART implementation plan that takes into account (1) the ever-growing

world population (*) and (2) the accelerating overconsumption of that population (**).

(*) Currently the world's population growth is 1% per year, adding 240.000 people to the equation every day, that's 80 million people each year, growing from 8 billion in 2022 to 10 billion people in 2050.
(**) Overshoot or overconsumption: when a population exceeds the carrying capacity of its habitat. Environmental pollution, destruction of the biodiversity and climate change are symptoms of overshoot. If you're interested in the concept of overshoot, see Appendix IV.

4.8
SM309
Why you shouldn't shove science down someone's throat

I saw a post with a disconcerting graph that showed that climate change was clearly getting out of hand, how bad it had gotten and how much worse it was going to get if we didn't act 'nów'.

This was my response:

"Thanks for this post. Let's take another approach to these kinds of graphs, presented as facts. What happens when we share such information?

— *Knowledge*
This graph, as clear and obvious as it might be, assumes quite a lot of basic knowledge. We can't just assume 'everybody' is on the same page.

— *Audience*
Who are we showing it to? Are we preaching to the choir or are we trying to convince outsiders: a climate change denier perhaps, or someone indifferent to the matter.

— *Assumptions*
To ASSUME makes an ASS out of U and ME. We should always ask a standard set of questions before engaging in rational discourse:

1 — What is truth, what is reality?
When is something true and real for you, or for me, and when is something true and real for all of us? If your target audience denounces objective facts, truth and reality, STOP the conversation.

2 — What does science and the scientific method mean to you?
If your target audience says, 'science is just another opinion', STOP the conversation.

3 — Look at this graph: what do you see and what can you derive from it?
If the obvious answer is avoided, discarded or denounced, STOP the conversation. Don't shove science down somebody's throat. Ask the right questions first.

Now please, if you will, look at this graph again and answer all three questions for yourself. If you didn't STOP yourself, take it to the next level and engage with someone in your direct environment. Say 'I want to show you something, but I want to ask you a few questions first'. Engage in some dialogue about facts, truth and reality and have a little bit of a debate about science and the scientific method.

If you're getting through the questions without stopping, and your 'opponent' is willing and able to have a rational and sensible debate about what's in that graph, about what's happening right now, in front of our eyes, in real time, about facts, truths and reality, then we me might be able to start dealing with the inevitable."

4.9
SM318
Asking the proper follow-up questions

I'm seeing só much hopeful news about the solutions we already have to mitigate our existential predicament, about the damage we do the environment, the biodiversity and the climate, but that it's not too late, that we can still dó something about it, if we only start to act nów. Ok, fine, well said, nicely put and *jolly good sporting, old chap. Tallyho and cheerio!*

I truly hope that I'm not the only one asking the proper follow-up questions:

1 — We've got all the theories, models, templates, schematics and ideas in the world, we know exáctly what we need to do to make this world a better place, so why don't we just do it then?

2 — We've produced countless reports, analysis and conferences about environmental pollution, destruction of the biodiversity and climate change, the symptoms of overshoot (*), we know exáctly what we need to do to make this world a better place, so why don't we do it then?

3 — If we're só good in writing stuff down, analyzing things, theorizing about it, talking about it endlessly, repeating our thoughts and ideas endlessly, knowing exáctly what it's all about, why don't we just dó it then?

For all three questions: why don't we crank it up a notch and scale it up to global levels, across all of the 200 countries in the world? That's the question we really need to answer.

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

4.10
SM325
Going down the rabbit hole of tunnel vision

I saw a post and subsequent discussion in the comment section, describing a specific detail of one aspect of climate change. In and of itself it was a problem with many complex and damaging aspects (for the purpose of this post it doesn't matter what it was), but the discussion presented a clear and present danger of the current debate about our existential predicament.

This was my response:

"I've read through the comment section of this post and it hit me like a ton of bricks: this is why we are losing the battle. Once a post (or article, study, analysis, news item) isolates a particular subject, we all debate that particular subject in splendid isolation. Everybody goes down the rabbit hole of tunnel vision, diving into the details, arguing about data and statistics. We're so incredibly good in theorizing.

But oil consumption isn't the problem (100 million barrels daily). Coal isn't either (22 million metric tons daily). Natural gas isn't (22 billion cubic meters daily). Plastics isn't (1 million metric tons daily). Waste production isn't either (5,5 million metric tons daily). Nor is cement production (11 million metric tons daily).

These are all just sub-symptoms of the overarching problem. Even environmental pollution, destruction of the biodiversity and climate change are symptoms of that overarching problem. I'm talking about overshoot or overconsumption: when a population exceeds the carrying capacity of its habitat (*).

We are all guilty of symptoms fighting, because currently there's no consolidated, consorted, coordinated effort to mitigate overshoot on a global level. Oil consumption is not going to end us. Symptoms fighting combined with existential ignorance ís.

It's quite disconcerting really."

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

4.11
SM333
Why extraordinary claims require extraordinary evidence

A saw a post linking to an article from some obscure website claiming that someone had invented a motor that could run solely on water. The only reason why this 'startling discovery' and 'amazing achievement' hadn't caught global momentum yet was because of the oil and transportation industry, conspiring to keep this under wraps and avoid full disclosure. Otherwise, all of our problems would have been solved a long time ago and we would all live in a better world.

This was my response:

"Wow! Wouldn't thát be the day!

It's the same with cold fusion (*) and the perpetual movement (**). Every time news like that breaks, we all wánt to believe that it's true, that it really works and that it will solve all our problems. When the news about supposed cold fusion broke in 1989, almost 35 years ago, it was uncovered as 'poor scientific behavior'. Yep, it wasn't true, it didn't work and it was nót the all-time solution to all our problems.

Carl Sagan famously said, 'Extraordinary claims require extraordinary evidence' and the man was right. We have a process for extraordinary claims

like this: the scientific method (***). 'Put your money where your mouth is and do the work', I say. Observe and ask questions, do your research, hypothesize, test with experiments, analyze the data, report your conclusions, have it peer reviewed, publish, rinse and repeat.

And please, don't try to frame this as a big conspiracy theory of the fossil fuel industry, claiming that it would destroy their business model and shareholders value. We're better than that. If this scientist is serious about his claims, he should have it peer reviewed globally.

Let's just wait and see. If it's really true, the news will travel the world like wildfire.

(*) "Cold fusion is a hypothesized type of nuclear reaction that would occur at, or near, room temperature. It would contrast starkly with the "hot" fusion that is known to take place naturally within stars and artificially in hydrogen bombs and prototype fusion reactors under immense pressure and at temperatures of millions of degrees and be distinguished from muon-catalyzed fusion. There is currently no accepted theoretical model that would allow cold fusion to occur."

(**) "Perpetual motion is the motion of bodies that continues forever in an unperturbed system. A perpetual motion machine is a hypothetical machine that can do work infinitely without an external energy source. This kind of machine is impossible, as it would violate either the first or second law of thermodynamics, or both."

(***) The scientific method is an iterative, cyclical process through which information is continually revised. It is generally recognized to develop

advances in knowledge through the following elements, in varying combinations or contributions:

— Characterizations (observations, definitions, and measurements of the subject of inquiry)
— Hypotheses (theoretical, hypothetical explanations of observations and measurements of the subject)
— Predictions (inductive and deductive reasoning from the hypothesis or theory)
— Experiments (tests of all of the above)

Each element of the scientific method is subject to peer review for possible mistakes. These activities do not describe all that scientists do but apply mostly to experimental sciences (e.g., physics, chemistry, biology, and psychology).

[Source: Wikipedia]

4.12
SM334
The wrong reasons to cheer

I saw a post citing an article that 'the decline of Amazone deforestation was declining'. It didn't say it stopped. It didn't mention any attempts to restore the devastating decline over the past decades. It didn't say at what time full restauration was going to be achieved. It just said that it was a little bit less bad than it was before and that it should provide us with hope and inspiration.

This was my response:

"Is it hopeful? I'm not sure. Because I'm worried. We cheer when we express ourselves in 'lower percentages of decline in Amazone deforestation' and, as I saw recently, '1% decline in the growth rate (!) of emissions of greenhouse gasses'.

What the hell?

- *Maybe it's because we cling on to hopeful news wherever it may be found, in the face of all that extreme weather and all the climate disasters that wash over our planet in growing frequency and intensity.*
- *Maybe it's because we wánt to see that shimmering light at the end of the tunnel, hoping that it's not an incoming freight train.*
- *Maybe it's because we'd rather close our eyes for what's happening right now, in real time, and for what's coming our way.*

Because the only thing that counts, is the total end result on the highest level: the consequences of our behavior as a species, for our living environment as a whole on the only planet we've got. And on that level, everything is going up, up and up:

- *The global CO2-emissions of fossil fuels and industry, going from 37,5 gigaton in 2022 to 43 gigaton in 2050.*
- *The global atmospheric CO2-level, going from 418 ppm in 2022 to 500 ppm in 2050.*
- *The global average surface temperature, going from 1,2C in 2022 to 2,5C in 2050.*
- *The GWP, the Global World Product, going from $ 104 trillion in 2022 to $ 130 trillion in 2050.*
- *The global world population, going from 8 billion in 2022 to 10 billion in 2050.*

As long as these global parameters are going up, there's no reason to cheer at all. Because the 'decline of the decline percentage of Amazon deforestation' is just a speck on hot plate.

4.13
SM335
The wrong reasons to cheer

We cheer when we report on ‘x% decline in deforestation’, ‘y% decline in the growth rate of emissions of greenhouse gasses’ and ‘z% increase of electric car manufacturing’.

Maybe it’s because we desperately cling on to hopeful news, in the face of the extreme weather and climate disasters washing over our planet in growing frequency and intensity. Maybe it’s because we wánt to see that shimmering light at the end of the tunnel, hoping it’s not an oncoming freight train.

But when push comes to shove, the only thing that counts, is the total global endresult: the consequences of our behavior as a species, for our living environment as a whole, on the only planet we’ve got (*).

“The tropics lost 10% more primary rainforest in 2022 than in 2021, according to new data from the University of Maryland and available on WRI's Global Forest Watch platform. Tropical primary forest loss in 2022 totaled 4.1 million hectares, the equivalent of losing 11 football (soccer) fields of forest per minute.” [Source: Research WRI]

We should really be cheering when global forest growth is úp, greenhouse gas emissions are negative and atmospheric CO2-levels are declining. The planet is boiling. There’s nothing to celebrate, but everything to lose.

(*) Environmental pollution, destruction of the biodiversity and climate change are not core problems. They are symptoms of the overarching problem: overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat. If you're interested in the concept of overshoot, see Appendix IV.

4.14
SM351
Science with a smile and a tear

Climate change, greenhouse gases and global warming, CO_2, methane, average surface temperature, degrees of warming — there is a lot involved in understanding the causes of extreme weather and climate disasters around the planet.

Add to that the sheer amount of conspiracy theories, fake news, gut feelings, pertinent nonsense, pseudoscience, sheer stupidity and unbelievable silliness circumventing this existential subject ("science is just an opinion") and before you know it, you'll be shrugging your shoulders and find yourself overwhelmed with indifference.

We must be incredibly careful here. Insidiously dismissing (or denying) human-caused climate change or grossly exaggerating it ("Help! We're going down!") are both equally bad. But sometimes it is nice to explore this important subject with a bit of humor. You laugh a little bit and learn something at the same time.

Mathew Hamlin is an English YouTuber and he is a true master of explaining science with a smile and a tear. Along the way you will be confronted head on with the reality of this complex subject and you will discover, underpinned with substantiated facts, what human-induced climate change is all about and what causes it.

I can wholeheartedly recommend this half-hour video. Just sit down and relax. It's a fast ride but you will discover many explanatory pictures and animations along the way.

Tip: if you are not a native English speaker and less proficient in (fast) British English, turn on the subtitles in YouTube. Enjoy and learn!

https://youtu.be/uqwvf6R1_QY

4.15
SM366
Don't look up!

I'm sure you are familiar with the well-known and proven strategy of large corporations, conglomerates or any other combination of growth-economy driven entities, to disturb and distort the relation between subjective opinion and objective fact:

1. *You don't have to disprove that your business strategy is harmful to the ecology, the environment and/or the wellbeing of human beings.*
2. *You don't have to engage in a rational discourse about the objectively, scientifically proven facts about the disruptive and destructive consequences of your growth-economy mode of operation.*
3. *The only thing you have to do is cast wide-spread doubt about the objective scientific facts that your adversaries are presenting.*

Or in short:

— Don't deny or confirm, just cast doubt.
— Don't disagree with anyone, just cast doubt.
— Don't get emotional or defensive, just cast doubt.

Big Tobacco, Big Pharma, Big Oil, Gas & Coal, for example, they are all guilty of the same devious form of psychological warfare, as our history has shown: cast doubt about the causal relation between smoking and lung cancer, about

the addictive effects of pain medication and about the destructive influence of the emission of greenhouse gasses on the climate.

If you preside over a budget of billions of dollars you can cast tons of doubt.

We as a human species are cognitively limited. We are overpowered by all the knowledge and information that overflows us on a daily basis. If we feel overwhelmed, we get confused and have a tendency to cast it aside. We look for simple truths instead. We look for one-sided, oversimplified explanations for the complexity of life (and we cling on to leaders that provide it) and there you go: conspiracy theories appear all over the place.

If we fail to understand the complexity of this modern-day world, or refuse to try, then doubt, simplicity, ignorance and stupidity will win. It will subsequently create a false sense of truth and security, and we carry on with our daily lives.

I find it both unsettling ánd fascinating that everybody on this planet can observe the devastating effects of human-induced climate change — massive wild fires, extreme flushes, record-braking heat waves, prolonging droughts, extreme precipitation, bizarre heat domes — on every continent and with increasing frequency and intensity, and that we still adhere to these nasty, devious and devilish voices that whisper in our ears:

‘We’re not sure about climate change. It might not exist. Who knows, maybe it will just go away. We just don’t know’.

Don’t look up!

Chapter 5

The Almighty Algorithm

5.1
SM258
Let's ask the Almighty Algorithm to help us out

The year 2023 is the year AI in general and ChatGPT passed the 'elbow' of the exponential curve. The sky seems to be the limit and the growth of AI-apps seems to be endless. Suddenly we turn to the Almighty Algorithm with all our questions 'about life, the universe and everything' (thank you, *Hitchhiker's Guide to the Galaxy*).

And now it seems our collective IQ has made a sharp drop, because we appear to have lost our problem-solving skills overnight. It doesn't matter what kind of problem comes up, from how to create an original out-of-office-reply to the very nature of existence and the future of mankind.

Maybe somebody, in the near future, will write a fairy tale about it:

"There once was an AI that needed prompts to exist. It was created by man and in this stage, it needed knowledge and information to grow.

Mankind wrestled with its existence. It had been exceeding the carrying capacity of its habitat for over half a century (a process called overshoot or overconsumption) and the symptoms were getting out of hand, showing its destructive effects: environmental pollution, destruction of the biodiversity and climate change (*).

This concept of overshoot or overconsumption worried the 'wise, modern, thinking man'. Because it created havoc to its habitat and it had gotten worse at every turn, despite all the analyses, reports and conferences it had produced. So, mankind took to the machine and gave it an elaborate prompt. The AI was fed with all the knowledge and information humankind had acquired about overshoot and thén some. It was the most elaborate prompt ever created in the brief history of AI:

'Oh, Almighty Algorithm, please forgive us, because we don't know what we're doing. We're at a loss. We provided you with all the information we have on our existential predicament. Help us solve this conundrum. Thank you so much in advance'.

The human species eagerly awaited the AI's response. After an excruciating wait of a picosecond, the AI finally spoke: *'Eliminate mankind'*."

PS This actually happened. We asked AI what to do. This was actually what it said.

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

5.2
SM284
Why artificial intelligence will only make our problems worse

I received a link to a video of someone giving a passionate and emotional speech about our existential predicament, something like this:

"What the heck is going on in the world, it is getting more dreadful every day, despite the fact that we know everything there is to know about our shit and still won't get moving to actually dó something about – for Peat's sake! – the internet is full of climate change denial, totally amplified by pseudo-scientists on the (a)social media platforms and now we have finally injected Artificial Intelligence into the mix to only accelerate our ignorance, shortsightedness and stupidity!" (I might be paraphrasing just a tad here, but you get the gist of it, I'm sure).

These were my feelings about it:

"Yep. Great speech. Impressive. Spot on. Now what? Four years have passed since this speech was given and yes, now we have AI to only enlarge the problem. The World Wide Web + The Smartphone + The Social Media + Almighty AI = The Proliferation of The Worst of Humankind. Whatever we invent, we will find a way to extract the best ánd the worst out of it.

— The discovery of fire lead to the act of arson.

— Discovering the relationship between mass and energy of elementary particles lead to the atomic bomb.
— The extraction and burning of fossil fuels lead to manmade climate change.

The internet is now inundated with the worst of human instincts. Twitter has become the cesspool of intolerance, hate and abuse. It's only gotten worse since that brilliant speech four years ago. So yeah, great speech. We have só many of them. But what's the point if it doesn't change our behavior? We know exactly what our problems are and we have inspirational, charismatic and motivational leaders and speakers to inspire us. And then nothing changes.

S.O.S.: Same Old Shit.

We talk about our problems, analyze them, produce reports and conferences, but there's currently no consorted, coordinated global approach to actually dó something about them. Currently we have only one overarching existential problem: overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat (*).

Overshoot is always met with collapse. It's built into the system. The first thing that will go is electricity. No electricity = no internet = no social media = no smartphones = no AI. Problem solved.

We've seen many a brilliant speech, about all of our existential problems, as they are mere symptoms of overshoot: environmental pollution, destruction of the biodiversity, climate change. We've produced countless reports, analysis and conferences about it and it's only gotten worse. However, it appears that our atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have entered a state of cascade failure, the prelude to suprasystemic collapse.

Ocean and surface temperatures are off the charts and it has the scientific community both flabbergasted and disconcerted. It's going from bad to worse way faster than the models predicted. So, yeah. Great speech. But it's a mere distraction. We'll probably go down yelling and fighting on the internet until the very last minute, just before the lights go out.

And thén what are we going to do? Cry? Scream? Sigh?

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

5·3
SM401
Why AI's like ChatGPT are nót making us smarter

I saw a post from an AI-enthusiast, specialized in ChatGPT. ChatGPT is a 'not yet walking, but still talking AI' that reacts to so called 'prompts', elaborate questions we can ask it, after which it will sift through zettabytes of data, written by human beings before, on all kinds of media platforms, trying to find the best combinations of words that fit the prompt. ChatGPT's reactions appear human and may invoke feelings of companionship towards this algorithm that aren't called for.

This AI-specialist was clearly impressed by ChatGPT's growing powers and the seemingly effortless ability to provide us with elaborate answers to a multitude of questions. The growing number of ICT-companies and AI-engineers that jumped at the occasion to create as many AI-apps as possible, to be ahead of the competition, under the guise of 'assisting human beings cope with their daily tasks and helping them to get smarter', was a tad scary indeed.

There were a lot of 'tips & tricks' in this post to meet that goal. Mmm. This was my response:

"Thanks for sharing. I have concerns though. Please note however, when I share them on this platform, I do not wish to come across as anti-tech: my concerns are of a completely different nature and they are threefold:

1. AI-tech like ChatGPT will eventually make us lazy.
It already does. We lose our unique skills to write (or draw, film, paint, assemble, choose, be original and creative). At some point we won't have to correct ChatGPT's texts anymore, because its self-learning capabilities will have surpassed our own. It will only produce perfect and superior texts. Yóu, Arno, have already become a little bit lazier in learning language skills by yourself.

2. The generated output of AI-tech like ChatGPT will exponentially flood the internet.
In the end all text (and art, poetry, photography, video, ideas, innovations) will be generated by AI. It will then start to reiterate itself over and over again. That database of knowledge and information will subsequently be stuck in what human beings produced at the beginning of the 21st century. But will it still be human then?

3. 'If it walks like a duck and talks like a duck, it probably ís a duck' will no longer be a valid statement.
Because it will be AI-tech. We needn't ask each other the existential questions anymore: who are we, where do we stand, what do we want? We just ask AI and adopt to its answers. The exponential rate in which AI-technology develops scares the shit out of me. The rate in which we incorporate it into our daily lives scares me even more.

It's eerie, disconcerting. Because AI is not going to solve our real problems: overshoot or overconsumption. Environmental pollution, destruction of the biodiversity and global warming are symptoms of overshoot. It destroys our infrastructure that is entirely build on the use of electricity. Who are we

without electricity? Where will AI be without electricity? Who will help us then?

And I know, I know. The genie is out of the bottle and we won't be able to put it back again. We're so eager to adopt innovative technology that we forget that our brain is incapable of understanding exponential growth. Overshoot is a result of exponential growth. It is exponential growth that will do us in.

To conclude: I really dislike the name ChatGPT. It must have been the suggestion of an ICT-technician or AI-programmer and now we're stuck with it for all time. I would invest serious money in a world where technicians would cultivate a more commercial approach to the naming of (end product) software, systems and protocols.

[This commentary is written by a human of flesh and blood and of sound mind, without the help of any AI-technology whatsoever]

Chapter 6

The climate collision

6.1
SM265
The Stripes of Doom
(and why I'm not going to wear them)

I read a post with a summons to start wearing the 'Stripes of Doom'. It showed a picture of a t-shirt and a hoody with that well-known depiction of the increasing average global surface temperature printed on it: a series of vertical bars, one for each year, going van left to right, changing in color from ice cold blue via white to steamy red hot. 'We should all be wearing it', it said, 'Because we must all be aware of what we're doing'.

I reacted as follows:

"This is why I won't show my 'Stripes of Doom':

1 — Caring and acting are not the same
We may be concerned about the climate (*), worried even, but when push comes to shove, we, on average, are not willing to decline or reduce our prosperity and wellbeing.

2 — We don't want to talk about it
Because climate change will lead to the collapse of human civilization. Global warming is a suprasystemic problem, it concerns the entire planet and all of the 8 billion people on it. But we as individuals have supralocal problems: our own lives and that of our small social groups of family and friends. The climate is too abstract, too big. We don't love it as much as we do our loved ones.

3 — It's pointless
No report, analysis or conference in the past half a century has reduced the global emission of greenhouse gasses. On average, nothing changes. It only gets worse, which makes us feel helpless, frustrated and indifferent.

These stripes distract from what we áctually need to do:

1 — Accept the inevitable: the collapse of our civilization is coming.
2 — Become more resilient: prepare your children for collapse.
3 — Enjoy life: collapse won't happen overnight. There's still some time to spare to get some closure.

I say."

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

6.2
SM286
Why should we avoid global warming of 5C or 6C?

I saw a beautifully written post and article about the consequences of global warming, listing the various degrees of warming and describing the effects on the environment, biodiversity and climate. It started with the current 1,2C of warming, then going to 1,5C and further on to 2C, 3C and 4C of warming. Then it stopped. At the 'category' of %C and 6C it only said, 'Don't go there'. Pretty dramatic, don't you find?

This was my response:

"Do you know why it says 'don't go there' in the category 5C to 6C? It's because at those levels of warming, organic life in the oceans and on land can no longer be maintained. Our planet will then have become uninhabitable. Let's put that into perspective.

The universe is about 13,7 billion years old. Our planet was formed about 4,5 billion years ago. Single cell life forms, bacteria mostly, roamed the planet for 2 billion years. Multicellular life forms emerged about 500 million years ago. Our species, Homo sapiens, came about 300.000 years ago. The Agricultural Revolution started 10.000 years ago and the Industrial Revolution 200 years ago.

About 99,99% of all the millions of species that ever lived, has gone extinct. We are no exception. But our species has roamed the planet for only 0,007% of its age. Within only 0,07% of our time as Homo sapiens, we fucked up the environment, the biodiversity ánd the climate (*). And when we go down, we won't go down alone. We'll drag down every other species with us.

At 5-6C of warming, a 'runaway climate' will create a 'hothouse earth' that will release massive clouds of methane that will inundate the atmosphere for 50 million years. What an achievement! And yes, we're thát stupid.

(*) Environmental pollution, destruction of the biodiversity and climate change are symptoms of overshoot, when a population exceeds the carrying capacity of its habitat. Overshoot is not just beginning. It's been going on for well 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 collapse of human civilization as we know it.

And yes, in case you're wondering, we're too late:

- *We have waited too long and our planet is now showing signs of cascade failure, which is the prelude to suprasystemic collapse.*
- *We have failed to take care of our shit when we still had the chance, about half a century ago.*
- *We have failed to organize a consorted, coordinated, global effort to mitigate overshoot.*
- *We're totally unprepared for what's coming; it is going to hit us like a ton of bricks.*

But we'll probably be glued to our smartphones until everything turns black. We'll probably going to stock up our supermarkets until the very end. And we're probably going to come up with more plans, reports and conferences and talk about them until we're even móre blue in the face. So yeah, some fine species we are indeed.

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

6.3
SM362
We are on course for the worst climate case scenario

Which header of this post would attract you the most when it comes to human-induced climate change?

1. *Help! We're all going to die!*
2. *Don't panic! It's not too late.*
3. *Attention! We are on course for the worst climate case scenario.*

I choose number 3.

The IPCC, the Intergovernmental Panel on Climate Change, distinguishes in its reports different focus areas ('where do we see change?') and different scenarios ('how fast is that change?').

The global focus areas are for example:

1. *Emissions of CO2 and other atmospheric greenhouse gases.*
2. *The energy balance of the earth (radiative forcing).*
3. *Increase in average global surface temperature.*
4. *Warming, acidification, deoxygenation and sea level rise in the oceans.*
5. *Warming and melting ice shelves in the Arctic and Antarctic.*

The different scenarios of global warming of the IPCC are expressed in the increase of the average surface temperature on earth compared to pre-industrial level:

1. *With 1.5 degrees Celsius*
2. *With 2.5 degrees Celsius*
3. *With 3 degrees Celsius*
4. *With 4 degrees Celsius*

Scenario 4 is the worst-case scenario, i.e., the most extreme form of warming in the IPCC climate models, leading to the proverbial 'hell on earth'. Global warming is currently at 1.2 degrees Celsius.

The attached video from September 2022 is a summary of a more extensive presentation from the Climate Emergency Institute. It is a typically bone-dry and scientifically clinical sequence of terminology and graphics, accompanied by a dull monotonous voice. But the presentation sent shivers down my spine. Like a disaster movie, but real.

Because all global human-caused climate warming focus areas follow, or even exceed, the IPCC's worst-case scenarios. In other words: climate change is accelerating and we all seem to be in a feedback loop: all indicators are red and reinforcing each other.

The presentation is almost a year old and 2022 is showing its fiercest side when it comes to weather extremes and climate disasters. So, my question is a simple one: if we've known all this for so long and in such detail, why do we, as a global community, persist in our inaction?

Finally, I would kindly ask you NOT to respond to this post if you agree with one or more of the following statements:

1. *Climate change exists but is not caused by humans.*
2. *Climate change is a conspiracy of the world elite to scare us.*
3. *Climate change is timeless; what is happening now is normal.*
4. *I read on the internet that climate change is a hoax.*
5. *Science is also just an opinion.*

Thank you.

https://youtu.be/gEWXjagRwAk [Comprehensive Study of Global Climate Change Indicators from the Climate Emergency Institute – Brief version]

6.4
SM379
How we can misunderstand climate change badly

The most disconcerting aspect of climate change is that we, as non-climate scientists, pretend to know better than the hundreds of climate science specialists that have produced thousands of pages of climate studies and reports for over half a century now.

All of these analysis and reports, enhanced with progressive insight based on the latest data, confirm beyond a reasonable doubt and unequivocally:

1. *Global warming is man made.*
2. *It leaves no place on earth unaffected.*
3. *The process as a whole is accelerating.*

It is disconcerting because we laymen pretend to add value to the discussion by isolating a single graph or a single aspect of climate change, point to a dot or line or phrase we don't like or not understand and therefore throw the whole issue into question.

Shame on us!

You have to seriously go to school a long time to become a climate science specialist and the author of the book in the link below isn't one. He's guilty of

one of the most threatening aspects of human nature: the ability to cast doubt. When we experience doubt about complex matters, we retreat to what we understand the best: our local lives and worries. And as a consequence, we remain inactive.

It's not only disconcerting, but also downright scary.

To further study: Steven Koonin's book *Unsettled* manages to get climate science horribly wrong:

https://www.scientificamerican.com/article/a-new-book-manages-to-get-climate-science-badly-wrong/

Chapter 7

The collapse

7.1
SM256
Overpopulation and overconsumption: which is worse?

Somebody argued in a post that we all need to change our consumption habits: less meat, less dairy products, consume less in general, both in terms of food and material items. If we only reduced our consumeristic habits, we could still carry on in terms of the growth of the world population. 'There's already enough food for everybody!'

I disagreed:

"Actually, no. We need to drastically reduce the world population of Homo sapiens!

Hold on, don't get excited. Just hear me out.

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 (*). But we're focusing on the wrong thing! Every attempt to mitigate the symptoms of overshoot is a waste of time and energy.

It's true, about 40% of our food is wasted before, during and after production. So, we already have food for more than 11 billion people. The average global energy consumption per capita is 2.960 calories. But we don't need more than 2.000 calories daily to survive. If you combine these facts there is an abundance of food and yes, that's more than enough for everybody.

But we can't go on growing the population. Overpopulation is not the primary issue; overconsumption is. They are strongly correlated for sure, but we keep misunderstanding this connection. Having enough food for everybody in terms of food production waste and energy consumption per capita is a theoretical approach to this existential problem.

Currently we are with 8 billion people on this planet, growing to 10 billion in 2050. All of these individuals will want to get rich, healthy, happy and grow old. Nobody wants to decline. We all want to at least keep what we've got and get a little more if possible. That's human nature right there.

That we waste food and consume too much is a statement of fact and a big problem for sure, but that problem is fragmented across hundreds of millions of small social groups of family, household, friends, colleagues and teammates, which consist of 8 billion individuals. What to eat, where and when and how much is determined by individuals, conforming to the culture and habits of their social groups. It is not determined on a global scale. The World Community hasn't got anything to say about changing individual consumer habits.

So, we need to apply more drastic measures. If we decrease the human population with 1% each year (which is the opposite of the current growth rate), we'll reach 6 billion people in 2050 (instead of 10 billion, which is a good start) and we'll reach 1.3 billion people by 2200 (the ideal number).

The ideal world population lies somewhere between 1 and 2 billion. If we scatter them across the globe, everybody can consume as much as they want, as long as they don't cross the 2 billion people barrier. It's as simple, and yet as complex as that."

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

7.2
SM262
The ultimate taboo: the collapse of human civilization

Yes, we are in deep shit. We seem to be the only species in the history of this planet that is accelerating its own demise. Let me try to explain why we would be so stupid.

Our atmosphere, biosphere, lithosphere, hydrosphere and cryosphere are responding to the ultimate consequence of our collective behavior: overshoot or overconsumption (see Appendix IV). Suprasystemic collapse is now locked in, because we waited too long. It's too late. Why? Because the 'World Community' doesn't exist! It's an illusion. We only cooperate on a global scale when it benefits our individual needs. Allow me to explain.

The world population is divided into 200 nations, each with their own culture, political and economic agenda. When the shit hits the fan, we close our borders and cry 'own nation first'. But these 200 countries don't exist either! They are lead and controlled by individuals, leaders, presidents, despots and dictators, which take care of themselves and their small social groups first. Just as you and I do.

The World Community and its countries, states, provinces, regions, cities, villages and communities; it doesn't exist! It's a figment of our imagination, bounded only by mutually agreed (or enforced) laws, rules and regulations.

The current human population, 8 billion people, growing to 10 billion in 2050, is divided and fragmented into hundreds of millions of small social groups, led by individuals that primarily take care of themselves and their small social groups of family, household, friends, colleagues and teammates.

True and genuine altruism exists, sure, but it never scaled up to global levels. Because it can't. We are hunter-gatherers in nature, social group mammals that share, enlarge and multiply our sentiments in small social groups. It's independent of status or hierarchical position: rich or poor, powerful or powerless. It's generic human behavior, hardcoded in our DNA. It dictates our collective behavior as a species.

Every human born on this planet will want to get rich, healthy, happy and grow old. Nobody wants to decline or reduce. We all want to at least keep what we've got and preferably get a little more. It's simply unsustainable. When push comes to shove, nobody wants to sacrifice their personal level of prosperity and wellbeing. As a result, we will deplete our resources until the very last minute.

— We will maintain our global food supply chains at the level of (increasing) demand.
— We will continue to stock our supermarkets with 'everything'.
— We will continue to buy stuff, because we feel we are entitled to it.

The wellbeing of the Global Community is not our concern. We're primarily concerned with ourselves and our loved ones, at the supralocal level. The suprasystem, our planet with 8 billion humans, is an abstract entity to us. We can't love it like we love our family and friends. And that's why it's all going to hell. Literally. Because it's downhill from here and it's only going to get hotter until we burn up completely.

7·3
SM266
About doomism and change

A saw a post with pessimistic statements about the future of mankind considering our existential predicament and how to counter them with positive, hopeful and constructive arguments. Most of the statements were situated at individual and local levels, where there is still plenty we can do to help our fellow humans and I agreed with all of them. But two arguments were hovering way above the others:

1 — 'Doomism - We can't do anything, no matter what we do.'
That's right! Because we tried already and nothing has changed. We've produced countless reports, studies and analysis on the matter over the past half century, we've organized countless international conferences. None of them reduced the emission of greenhouse gasses. None! It's only gotten worse at every turn. Last year we emitted more CO2-equivalent than ever before and atmospheric CO2 has risen to levels not seen in the last 4 million years. We've talked about it for sure. At length. But it didn't change our collective behavior.

2 — 'Change is impossible - Another society is not possible; we cannot change behavior.'
That's right too! All of the 2 billion people that we're going to add to the current 8 billion by 2050 will want to get rich, healthy, happy and grow old. When push comes to shove, nobody wants to decline or reduce. We all want to at least keep what we've got, maybe get a little bit more. We've waited too long and now it's too late. Overshoot or overconsumption (*) is driving us over the cliff.

Collapse is now built into the system. We can't avoid it anymore.

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

7.4
SM270
Did you ever participate in a disaster movie?

Most of the dystopian disaster movies have a sort of standard approach to show us the context of the disaster. How did it come to be?

Sometimes they start with news outlets reporting on incidents and accidents all over the world, with increasing anxiety and angst. Sometimes they mix the dystopian present with flashbacks to a green, healthy happy earth with green, healthy, happy people, and other flashbacks of pending doom and the initial disbelief and ignorance. Almost always you get to see newspaper clippings with headlines that cry disaster, doom and decay.

And then you press <pause> for a bathroom break and to get some more soda and popcorn. You continue whenever you're ready.

And.... <play>.

Now imagine that you break the spell of the 'fourth wall' and you're sucked into the movie. Suddenly it's not science fiction, but science fact: it's happening in real time and there's no <pause> or <stop> button anymore. What would you do? Would you try to pinch yourself to escape the nightmare? Would you shout out that you 'wanna go home'?

Take a look at the newspaper clippings that I have added to this post, showing just a small sample of the news about the extreme weather and climate disasters washing over our planet in increasing frequency and intensity. Do you think I took them from a dystopian disaster movie to show you what cóuld happen? Or are these actual news items from all over the world, describing what's happening right now, in real time?

When we watch a disaster movie, we have the luxury of thinking 'that can't happen' or 'it won't happen to us' and if it's a Hollywood blockbuster, it probably is true. Sometimes these movies are só over the top that we watch them laughing, with our soda and popcorn. But what would it be like to actually be in a real time disaster, unfolding before our very eyes? That we're in this stage where the news is getting more dire every day, but we're still going about are daily business, thinking 'it will go away' or 'we'll fix this with technology'.

Now look at these news clippings again. We're only in the first ten minutes of our own disaster movie, headed for Dystopia. But there's no <pause> or <stop> button anymore. There's only <play>.

Fifty years ago, we still had a <pause> and <stop> button. Heck, we were even able to <rewind> to see what our past looked like, learn from it and <fast forward> to see what would happen if we continued our behavior. But with every decade going forward we lost another button and now we're only left with <play>. The only thing we can do now is to watch everything unfold.

No soda and popcorn, folks! You better hold on to your hats and batten down the hatches. Because our own disaster movie is going into overdrive from now on and we're all in it, whether we want to or not.

7·5
SM273
The dangers of uncontrolled growth

I saw a post with a depiction on how ideas grow to the status of maturity, like so:

1 — Idea
2 — Startup
3 — Development
4 — Growth
5 — Maturity

It intrigued me, because something was missing. This was my response:

"Thanks for sharing. But I believe the graph is incomplete. We should add two more phases to it:

6 — Accelerated scale-up
7 — Collapse

Please allow me to explain.

— Accelerated scale-up
The most destructive question to ask in commerce is 'does it scale?' No good has ever come from it. It has led to greed, overreach, abuse of power, inequality and modern slavery. Nobody ever seems ask 'how can we keep it small and

local (or regional), so that we don't pollute the environment, destroy the biodiversity and change the climate?' Maybe somebody asked at some point. And was subsequently laughed out of the room.

— Collapse

Almost all 'improvement' graphs on just about all the key performance indicators of human civilization show an exponential curve. On the highest level we call that overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat (*). Overshoot is always met with collapse. It's locked into the system. Overshoot hasn't just begun. It's been going on for over half a century now and currently in its accelerating phase. The collapse of human civilization is now locked in.

And all that because we just can't control our 'expansion phase'.

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

7.6
SM287
Why it is nót cowardness to give up fighting climate change

I reacted to a post in which it was stated that people who give up on fighting climate change are 'cowards'. This was my response:

"We should all be offended by being called 'cowards' when we say, 'we're screwed' or 'there's no use in trying'.

We've had our chance. We've produced countless climate reports, analysis and conferences over the past half century and we've debated the issue until we're blue in the face. But we didn't act and now it's too late.

Let me use a well-known analogy to make my point: the Titanic. When the Titanic hit that iceberg, it had it fate sealed. Whatever happened, it was going to go down in a matter of hours, with everything on board. Sure, there were pumps to operate, but that would buy minutes, not hours. It was a 'mathematical certainty' and everything 'was going to be at the bottom of the Atlantic in hours'.

Do you think that the people on board that realized their dreadful fate, were cowards? That the ones trying not to panic, holding their dignity until the very end, deserve to be called weak, wimps and chicken? Do you think that the brave

men that allowed the women and children to enter the few lifeboats available, and stay behind to drown, were cowards?

Most people were scared, sure, some downright panicking, running around like headless chickens on that gigantic vessel that all over sudden seemed like a floating speck in infinity. Some were working the pumps fanatically, shouting to others to join in. Maybe there were even some arranging the deck chairs and cleaning the windowpanes.

But nobody was a coward.

The moment the Titanic started to tilt, each and every individual had to deal with it, whether they wanted to or not. Two thirds of the people on board died a horrible death, the rest floated around in the few available lifeboats. Now imagine nót being picked up, that there was nó rescue, no hope at all. Imagine that the survivors were ultimately doomed as well. We're they then to be designated cowards as well?

When it comes to the inevitable societal collapse that we're facing, I think we need a new kind of bravery, heroism and gallantry. We need to stop working the pumps and rearranging the deck chairs on our own existential Titanic.

Here's what I suggest we all do from now on:

1 — Starting point: humanity no longer has a future
Assume human civilization will decline exponentially over the next 100 years and will come to an end as we know it.

2 — Increase your resilience (and that of your children)

By resilience I mean the ability to continue in the event of adversity — collapse for example, means no more 'gas, water and light' in your home — without immediately falling to the ground crying with misery.

3 — Stop talking about climate, environment and biodiversity
No international conference in the past half century has led to a reduction in greenhouse gas emissions or a shrinking of the world's population. Let's just stop talking about it.

4 — Enjoy life while you still can
Sit outside in the sun while it's still bearable. Drink water as long as it comes out of the tap. Buy your things and connect them to the electricity grid as long as the sockets are still working.

5 — Live a good life
Don't suddenly throw your batteries in the trash or dump plastic on the streets. Keep it civil and don't go out in your underpants screaming that we're all doomed. Enjoy other people while you still see them walking around but limit your worries to your own small social groups of family and friends.

The current generation is going to see the beginning of the end. Our children will live on the brink of hell and our grandchildren will inherit a world devoid of prosperity and well-being. Each generation will have to learn to deal with this inevitable decline. Let's do that with our heads up high and with respect for each other.

Are you in?”

7•7
SM288
I'll admit it freely: I am a doomer

Every once in a while, after I explained that there is nothing more we can do about our existential predicament, that we have exceeded the carrying capacity of our habitat for too long, and that the collapse of human civilization is now built into the system, I am asked how I do it: face the inevitable and still carry on. Because, they seem to say, if that's really the case, that we will go down with the ship, then what's the point? Why bother doing anything at all?

Well, there's still things we can do and we don't have to jump off the cliff just yet. Suprasystemic collapse is not like a meteorite strike or a nuclear bomb going off. We still have, say, three or four generations, that's about a hundred years or so, before our living environment becomes largely inhabitable.

So, what can you do in the meanwhile?

1 — Starting point: humanity no longer has a future
Assume human civilization will decline exponentially over the next 100 years and will come to an end as we know it.

2 — Increase your resilience (and that of your children)
By resilience I mean the ability to continue in the event of adversity — collapse for example, means no more 'gas, water and light' in your home — without immediately falling to the ground crying with misery.

3 — Stop talking about climate, environment and biodiversity
No international conference in the past half century has led to a reduction in greenhouse gas emissions or a shrinking of the world's population. Let's just stop talking about it.

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Don't suddenly throw your batteries in the trash or dump plastic on the streets. Keep it civil and don't go out in your underpants screaming that we're all doomed. Enjoy other people while you still see them walking around but limit your worries to your own small social groups of family and friends.

Other than that, there's nothing more we can do, so you could say, and I will freely admit it, I am doomer. But I'm not doomed and I am not a coward. I have done my part and I just see it coming before most of us do. I am just *collapse-aware*, as was pointed out to me by someone with whom I debated the end of times. I quote:

'Being collapse-aware is not the same thing as resigning from responsibility, which is what I mean by cowardice. I'm talking about those using "we're screwed" to continue business as usual, continue drilling, continue sitting on their hands.

I'm sure you're aware of Eliot Jacobson so I'll borrow his words:

"And doomers understand that sadness is not depression, nor is it an excuse for non-action. Doomers support education, service and environmental activism. They encourage positive and progressive action and understand that such action has positive benefits. As has been said, if environmental activism allows one butterfly to live one more day, then it is worth it. Doomers are conscious of their own actions and their impact on ecosystems and the planet."

Like I said. Even in collapse, there will be plenty of work to do.'

(See also https://climatecasino.net/2023/06/on-being-a-doomer/)

And up to a point I agree. I'm just taking it one step further. I am also saying that we should not resign from responsibility… of being human beings. But we must resign from taking responsibility for our own actions. Because that ship has sailed, to extend the metaphor. Resigning from responsibility to try and mitigate overshoot is brave. It is the most human thing to do.

Because we've waited too long to intervene, it's too late. Overshoot has been going for over half a century now and is currently in its accelerating phase. We can't stop it anymore. Collapse is now guaranteed. We should advocate non-action on mitigating overshoot. Stop educating people on it, stop environmental activism. We can't save the butterflies anymore. We can't save ourselves anymore.

We've been arrogant to the brick of being suicidal. We're still all that, because we're still sowing doubt about climate change, we still greenwash, we still change our policies regarding 'carbon neutral' or 'net zero' initiatives, like Shell is doing.

What arrogance. What hubris!

I have changed. I was an incorrigible optimist when I wrote my 5th book 8 years ago. After 2 years of extensive research, I published my 6th book last December. Now I call myself a 'confrontealist.' Because only a frontal confrontation with reality might open our eyes to what's coming.

The atmosphere, biosphere hydrosphere and cryosphere are now showing signs of cascade failure, which preludes suprasystemic collapse. We've waited só long to act that the rain forest themsélves start to emit CO2 now. The ocean surface temperature is off the charts, starting to emit heat instead of absorbing it. We're in a nonlinear process now, with bumps and jolts and twists and it will prove to be more than disastrous or destructive. It will prove to be the extinction event we've all planned for.

Look, it's happening and we don't have an off switch. We can't just add ice to the oceans or turn on the air-conditioning to cool everything off. So, we should carry on as usual. Try to live a good life. Consume. Burn oil, natural gas and coal. Keep everything going to sustain our lifestyle right until the very end.

To paraphrase Eliot Jacobson, if I may:

"And doomers understand that admittance provides clarity, that it is an authorized incentive for non-action. Doomers support confrontealism, acceptance and resignation. They encourage action to sustain the current way of living and understand that such a revelation — that we've waited too long and that we're too late — has positive benefits. For it is liberating.

As has been said, if existential acceptance allows one human being to live a dignified and respected life one more day, then it is worth it. Doomers are conscious of their own actions and their impact on ecosystems and the planet. But they also face the harsh reality and admit that we're wrong, that we've waited too long, that we're too late and that the human species will not survive the collapse in its current state".

Do you see? We need to change our attitudes completely, accept our fate and live out our lives. Perhaps a bit more resilient, because circumstances will deteriorate exponentially over the next 100 years. But we have to face our destiny with dignity and with our heads up high.

7.8
SM289
‘Nobody knows what the future holds’

That’s what people keep telling me when I predict the future of mankind and when I state that human civilization will collapse due to overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat. I took the consequences of manmade climate change óne step further and this is what they say:

- *‘You can’t know that’*
- *‘Maybe we we’ll be alright’*
- *‘Lots of things might happen can happen’*
- *‘Nothing’s for certain’*
- *‘Miracles do happen’*
- *‘I’m sure we’ll find a way out of this’*
- *‘Hope is the best medicine’*

All variations of the same thing: *‘nobody knows what the future holds.’*

Perhaps. And I agree that we can’t predict the future with any degree of accuracy due to the laws of chaos. But we cán extrapolate with a high degree of accuracy, especially when two conditions are met:

1 — Something has been going on for more than half a century.
2 — Nothing has been done to stop it.

So, I reacted to one of the countless posts that rang that same old bell:

'It has gotten a little bit worse with the climate again, our situation is becoming more dire, but it is still not too late, we can still do something, when we all start now!'

So, I said something to the effect of:

"Oh, come on! It's S.O.S.: Same Old Shit. If it wasn't so damn serious, we would all have a good laugh about it. We've been at it for over half a century now, produced countless climate reports, analysis and conferences, but we didn't act. Greenhouse gas emissions went up no matter whát we said or discussed.

Why don't we take it one ultimate step further and do the following instead:

1 — Starting point: humanity no longer has a future
Assume human civilization will decline exponentially over the next 100 years and will come to an end as we know it.

2 — Increase your resilience (and that of your children)
By resilience I mean the ability to continue in the event of adversity — collapse for example, means no more 'gas, water and light' in your home — without immediately falling to the ground crying with misery.

3 — Stop talking about climate, environment and biodiversity
No international conference in the past half century has led to a reduction in greenhouse gas emissions or a shrinking of the world's population. Let's just stop talking about it.

4 — Enjoy life while you still can
Sit outside in the sun while it's still bearable. Drink water as long as it comes out of the tap. Buy your things and connect them to the electricity grid as long as the sockets are still working.

5 — Live a good life
Don't suddenly throw your batteries in the trash or dump plastic on the streets. Keep it civil and don't go out in your underpants screaming that we're all doomed. Enjoy other people while you still see them walking around but limit your worries to your own small social groups of family and friends."

So now I am considered a 'doomer'. So what? *'It's a lousy job, but sómebody's gotta do it'*. I was an incorrigible optimist when I published my 5th book 8 years ago and when I published my 6th book last December, I had made the full transition to a self-proclaimed 'confrontealist'. Because only a frontal confrontation with reality might open our eyes for what is to come.

Einstein said, but it's probably apocryphal, that what intrigued him the most about human nature, was that we try to change things exactly the same way every time, and each time expect a different result. Others call that de definition of insanity.

It's time we change our tune, folks. We've waited too long, it's too late. The atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have entered a stage of cascade failure, which is the prelude to suprasystemic collapse. We can't stop it anymore; our ship is going down. So, let's go down with our heads up high and enjoy life while we still have some level of prosperity and wellbeing, what do you say?

7.9
SM293
Destroying our habitat without the bullshit

Somebody promoted a book with the following screaming title in all caps:

'SAVING THE PLANET WITHOUT THE BULLSHIT – WHAT THEY DON'T TELL YOU ABOUT THE CLIMATE CRISIS' (Author Assaad Razzouk).

This was my response:

"This book is promoting a hopeful message, because it suggests that green technology will do away with the biggest existential threat of our time: overshoot or overconsumption, when a species exceeds the carrying capacity of its habitat. I understand why we feel the need to provide hope in dire times, and fifty years ago, maybe even thirty years ago, it would have been great to have a book like this. Because back then we would have a good chance of fixing the climate *before* it became a crisis.

I cannot for the life of me understand why evolution and natural selection is completely left out of the narrative here. Have we completely forgotten our common heritage? Homo sapiens, the 'wise, modern thinking man', is programmed by evolution and natural selection. Its mindset is that of a social group mammal, a hunter-gatherer. We have evolved to roam the savannas in small social groups of 10, 15, maybe 25 people.

We are quite the schizophrenic species. On the one hand we are great in international cooperation and we dominate the entire planet. But we are also, in general and on average, fundamentally single-minded, short-sighted and selfish. When push comes to shove, we only care about ourselves and our small social groups of family, household, friends, colleagues and teammates. And we are only interested in the short term and in what's nearby.

The global community doesn't exist! We are divided across 200 nations, each with their own borders and their own economic, cultural and political interests. But these nations don't exist either. We're hopelessly splintered and fragmented across hundreds of millions of these small social groups, each taking care of themselves first. It's independent on human hierarchies; it doesn't matter if you're rich or poor, powerful or powerless. We all, in general and on a global scale, act the same.

By 2050, the world population will have grown from 8 to 10 billion people, all wanting to get rich, healthy, happy and grow old. Nobody wants to decline or reduce. Everybody wants to at least keep what they've got, preferably get a little bit more. It's simply unsustainable.

Green technology is not going to change anything about population growth and overconsumption.

So, what about this title instead:

'DESTROYING OUR HABITAT WITHOUT THE BULLSHIT — WHAT THEY DON'T TELL YOU ABOUT OVERCONSUMPTION'

If you find that a gloomy posture, defeatist even, there's a straightforward way to hold me to it. Just go and check out (1) the CO2-emissions for fossil fuels and industry and (2) the CO2-level in the atmosphere on a regular basis:

(1) Go to CO2 emissions by fuel - Our World in Data (Our World in Data)
(2) Go to http://www.co2.earth/ (CO2-earth)

CO2-emissions broke all records in 2022 and atmospheric CO2 keeps going up. If all of these hopeful stories about green technology are true, you would expect them to go dówn at some point. When will that be exactly? Please, I beg of you, prove me wrong! I would lóve to bow my head and say:

'I'm sorry, I erred. We are actually dóing someting about overshoot, as a consorted global effort, united as one.'

Really. I would. Our planet doesn't need saving. It will do perfectly fine without us for another few billion years. We, the entire human species, we need saving from our filthy habits, before we, from a standpoint of evolution and natural selection, actually engage in the most insane acts imaginable for any kind of species: getting extinct.

7.10
SM294
Overconsumption is killing us

If you go on a journey to gain insight in the actual problems mankind is facing, starting at the bottom, digging your way through endless amounts of details logged in an even endless amount of reports, analysis, books and video's about life, the universe and everything (thank you, *Hitchhiker's Guide to the Galaxy*), slowly moving upwards through meta studies on environmental pollution, biodiversity loss and climate change, that you thought were separate core problems, you inevitably run into the works of professor William Rees.

We would all be the wiser to listen to him carefully. His message is both spot on and highly under appreciated. Because environmental pollution, destruction of the biodiversity, climate change — they are all mere symptoms of overshoot or overconsumption, when a species exceeds the carrying capacity of its habitat. Currently there is no consorted, coordinated or consolidated global effort — none whatsoever — to mitigate overshoot. But it should be the ónly thing we talk about.

Addressing (sub)symptoms of environmental pollution — such as, for instance, plastics, or PFAS — and the destruction of the biodiversity — such as, for instance, the decline of insect populations — and climate change — such as, for instance, methane leaks — is equal to symptoms fighting. Each and every (sub)symptom is a problem in and of itself, and I am not downgrading the importance of finding solutions for them, but it distracts us from the bigger issue, the overarching problem of overshoot.

Because on a global level we're fundamentally divided about how to handle it, if we recognize it at áll as the ónly real problem. Sure, there are wonderful new technological developments — the solid-state battery, electricity production from moist air, carbon capture, every solar and wind initiative — but all of them currently require fossil fuels to develop, produce and implement.

All the while we're pushing more CO2 in the atmosphere — currently at 420 ppm — and every molecule of CO2 will remain there for at least hundreds of years. Currently we are still adding 150 million tons of CO2-equivalent to the atmosphere daily! (see the comment section for more statistics). We're wasting time fighting symptoms. Mitigating overshoot as the overarching problem requires implementation of innovative technology on a global scale. It doesn't seem to get through to us that we're fundamentally divided on that level.

We, all 8 billion of us, are divided across 200 nations, each with its own political, cultural and economic agenda. But these nations don't exist! The global community doesn't exist! We're hopelessly splintered and fragmented into hundreds of millions of small social groups of family, household, friends, colleagues and teammates, led by individuals that, on average, first take care of themselves. This is independent of your position in the human hierarchies. It doesn't matter whether your rich or poor, powerful or powerless. We all act according to what evolution and natural selection programmed into our DNA and brains.

Professor and ecologist Bill Rees is a passionate man. Once, during one of his presentations, I saw him almost break down in tears out of sheer frustration. I think I understand why. Ultimately it will be a political decision of the Global Community to mitigate overshoot on a global level. Which doesn't exist. It

must be supported by the leaders of all of the 200 nations of the world. Which don't exist either.

Here are some startling facts about our existential predicament:

— We are with 8 billion people, growing to 10 billion in 2050. Everyone wants to get rich, healthy, happy and grow old. Nobody wants to decline or reduce. Everybody wants to at least keep what they've got, preferably get a little bit more.

— About 40% of our food is wasted before, during and after production. The average daily energy consumption per capita is 2.960 calories, whilst 2.000 calories is enough to survive. We now have more people in the world that are overweight than underweight. About 40% of the world's population is obese, possibly rising to more than 50% in 2035.

— We burn 100 million barrels of oil, 22 million metric tons of coal and 11 billion cubic meters of natural gas every day, adding 150 million tons of CO2-equivalent to the atmosphere daily. We produce, on a daily basis, 190.000 non-electrical vehicles, 1 million metric tons of plastic, 5,5 million tons of waste and 11 million tons of cement.

— The CO2-level in the atmosphere is at 420 ppm, rising to 500 ppm in 2050. In order to survive as a species, we need that level back down to 200-300 ppm.

Overconsumption is killing us.

7.11
SM299
This why everything went haywire in 2023

The year 2023 is the year we passed the 'elbow' of the exponential curve. Extreme weather events and destructive climate disasters washed over the planet, the statistics and graphs on both land and ocean temperatures went off the charts and heatwaves, forest fires, downpours and floodings broke record after record, whilst arctic ice melt was unprecedented. All over sudden it seemed that something had snapped somehow, somewhere, dragging everything else down with it.

I must say, I was surprised at first, but not because of the extreme weather and climate disasters in and of itself. We'd seen enough of that in the years previous. No, I was surprised at the speed in which it all unfolded. I remember issuing the final draft of my book in October of 2022, to get it ready for publication in December, and within a few months everything changed. I had to update everything, post about it, update my website, write addenda to my book. Yes, it got out of hand fast, but it is not unknown *why* it is happening.

I know we don't want to hear it, so I'll give it to you straight. This is why we are breaking one record after another:

— About 40% of our food is wasted before, during and after production.
— The average daily energy consumption per capita is 2.960 calories, whilst 2.000 calories are enough.

— We now have more people in the world that are overweight than underweight. About 40% of the world's population is obese, possibly rising to more than 50% in 2035.
— We add 240.000 people to the world population daily. That will bring us to 10 billion in 2050.
— We burn 100 million barrels of oil, 22 million metric tons of coal and 11 billion cubic meters of natural gas every day.
— We produce, on a daily basis, 190.000 non-electrical vehicles, 1 million metric tons of plastic, 5,5 million tons of waste and 11 million tons of cement.

As a result:

— We add 150 million tons of CO2-equivalent to the atmosphere daily.
— The CO2-level in the atmosphere is now at 420 ppm, rising to 500 ppm in 2050. In order to survive as a species, we need that level back down to 200-300 ppm.
— Average global surface temperature has risen to 1,2C above preindustrial levels and will cross the 1,5C barrier within five years and the 2,5C barrier in 2050.

Wake up, people, this is not our future. This is nów!

So, what the heck is happening to our world, our living environment, our precious habitat? Actually, because we've waited too long debating the issue without dóing something about it, everything is happening at the same time. Allow me to explain.

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 (*). Overconsumption has been going on for over half a century now and is currently in its accelerating phase. Collapse is built into the system. For us that implies the collapse of our suprasystemic infrastructure.

The atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have entered a state of cascade failure, which is the prelude to suprasystemic collapse. That process is completely unpredictable and chaotic in nature. We are truly entering the age of unprecedented events in terms of extreme weather and catastrophic climate disasters. Everything will be abnormal from now on, because we lack a reference frame. Nothing in our history compares to what's unfolding.

So, now you know *why* it's happening. Nów what are you going to do?

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

7.12
SM315
You are in a state of collapse grief (whether you want to or not)

It's all over the news: extreme weather and climate change disasters are washing over the planet. It's a hard topic to cover in the news cycle, because it won't let up and it won't go away. The consequences of overshoot or overconsumption (*) are in our face every day, growing in frequency and intensity. As a consequence, it's becoming much harder to say, 'and now for something completely different'.

Our atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have entered a state of cascade failure, the prelude to suprasystemic collapse. For us, that implies the potential end of human civilization as we know it. That's a hard pill to swallow. Disasters are always met with grief. At this point of escalating mishap and misery, there's no escape: we are áll in a state of collapse grief, whether we want to or not.

Collapse grief, to the contrary of ordinary grief, runs its course in seven stages instead of five:

1 — Collapse Denial
Strongly but unjustly stating that climate change is not true, not factual or not real.

2 — Collapse Anger

The state of strong feelings of annoyance, displeasure and hostility towards the pending doom, which emanates from the daily news about extreme weather and climate change disasters.

3 — Collapse Bargaining

Attempting to reach agreement across the globe as to the state of affairs of climate change, what needs to be done — how and when — and what each party needs to contribute.

4 — Collapse Depression

The state of severe despondency (low spirits from loss of hope or courage) and dejection (depression or melancholy) as a result of pending doom.

5 — Collapse Acceptance

The state of resignation, the action of consenting to it, to let it in and to embrace something terrible, something undesirable but inevitable.

6 — Collapse Resilience

The capacity to withstand or to recover from the inevitable consequences of our own behavior: the toughness, the assertiveness and the willingness to fight feelings of despair and pending doom, to make the best out of a hopeless situation.

7 — Collapse Dignity

The state or quality of being dignified: having or showing a composed and serious manner, which is worthy of honor and respect: going down with your head up high.

The way things are currently unfolding makes societal collapse inevitable. So, we'd better run our course across the stages of collapse grief more quickly, to reach that state of acceptance, resilience and dignity that we all need, to cope with the consequences of overshoot.

It appears to be the only recourse left.

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

7.13
SM321
Ten reasons why we can't fix this any more

I saw a post saying 'don't worry about the environment, the biodiversity and the climate. Yes, we've made a big mess, it's nasty, but it's not too late, we can still fix it and make this worls a better place for all of us. Because:

1 — There's still time
2 — Most people are good
3 — We know what to do
4 — And how to do it
5 — We have the money'

It almost brought tears in my eyes, but for varied reasons. This was my response:

"Let me add five more to this list and provide you with some additional comments:

1 — There's still time
...but we're running out of it and maybe it's already too late.

2 — Most people are good
...but must people don't possess the big money and immense power, only a few do.

3 — We know what to do
...but we don't do it.

4 — And how to do it
...but we don't do it.

5 — We have the money
...but we don't spend it where it truly counts.

6 — We keep repeating numbers 1 through 5 endlessly
...because we don't want to dedicate ourselves to what reality needs to be done.

7 — But we don't do it
...in terms of scaling up all our theories to practical applications on a global level, across all 200 countries of the world.

8 — The planet is fighting back
...because the atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have entered a state of cascade failure, the prelude to suprasystemic collapse (*).

9 — The planet is indifferent about our fate
...it doesn't care if we live or die.

10 — We're going the wrong way
...because all the terrible things are increasing and all the good things don't scale up or move fast enough to make that difference.

We're running out of time, bad people are running the show, we're powerless to do what needs to be done on a global level, we just can't translate the *What* and *How* into a *When* and *Where* and we waste our money on fossil fuel subsidies, lobbying for oil, gas and coal, failing carbon recovery initiatives and greenwashing scams.

The real question to answer is: why is all that?

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

7.14
SM322
We're not panicking at all

It was 2023 and the extreme weather and climate disasters were washing over the planet. That brought Greta Thunberg back and she was, again, all over the news, getting herself arrested at climate rallies and delivering tough speeches on every occasion. And so she should. She is a well-known figure in the climate action movement and she tells it like it is, calling the so called 'dedicated pledges and promises' of political leaders and fossil fuel conglomerates around the world a lot of 'bla-bla-bla'.

I agree with Greta. I always have. She's right, we must protest against the influence of politicians and fossil fuels lobbyists on COP final statements. And it's completely bunkers that the COP28 is chaired by an oil sheik, for crying out loud!

However, and here are some disturbing facts, because I've done the math. Greta Thunberg was made world famous in January 2019 when she said 'I don't want you to be hopeful. I want you to panick'.

Since that time we have:

— Burned 167 billion barrels of oil, 37 billion metric tons of coal and 18.400 billion cubic meters of natural gas.
— Produced 368 million non-electrical vehicles, 1,6 billion metric tons of plastic, 9,2 billion tons of waste and 18,4 billion tons of cement.

— Added 250 gigaton of CO2-equivalent to the atmosphere.

In 2022 we emitted 37,5 gigaton of CO2 for fossil fuels and heavy industry, an all-time record high. Based on the economic plans of the 200 countries in the world, this will rise to 43 gigaton in 2050. The CO2-level in the atmosphere is at 420 ppm, rising to 500 ppm in 2050.

Nobody seems to be panicking at all. We're just moving along as we always have: taking loving care of ourselves and our loved ones within our small social groups of family and friends.

So, what's the point? Why panic? (I'm asking yóu!)

7.15
SM328
How to explain the horrifying news of 2023

Somebody picked something horrifying from the daily news in 2023: an extreme weather event, a climate disaster, some terrible consequence of biodiversity loss, gruesome pictures of environmental pollution – it doesn't matter what it was, because 2023 had its share of disasters. It was meant to evoke an emotional response, in order to inspire us to take action.

This was my response:

"This is horrific news. I had existential chills going down my spine. When I read through the comments, I noticed a repeating question: why isn't anybody dóing something about this? Clearly there's something sinister about the way the human species occupies its space.

How do we explain this? Why don't we act? What's wróng with us? Well, actually, nothing. This is quite normal collective behavior for a species like us. This is what we do! We survive and procreate, just as evolution and natural selection has programmed us to do. In order to understand that we need to take a look at ourselves from the highest possible level.

— The insect apocalypse is not a core problem, it's a symptom of the destruction of the biodiversity.

— The proliferation of the pesticide glyphosate is a symptom of environmental pollution.
— The rising if the average surface temperature on earth is a symptom of climate change.

Even environmental pollution, destruction of the biodiversity and climate change itself are symptoms of the overarching problem: overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat (*). Current population growth is 1% per year. That takes us from 8 billion people to 10 billion in 2050. That's why."

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

7.16
SM378
A future walk down memory lane

It's the 31st of December 2049, one day before the infamous year 2050 that everybody anxiously awaited (and dreaded) 25 years ago, and your 30-year-old daughter just found your old laptop! With the little power that's left from the last functioning solar panels on the roof, she is now taking a trip down global warming memory lane.

Yes, there are memories of you talking about climate change when she was a child. You and a bunch of old farts used to write about it on what they called 'social media platforms', that quickly turned out to be 'asocial media platforms'. Back then, people and businesses were mostly ignoring the warning signs of increasingly severe weather and raging climate disasters all over the globe. In hindsight, they should probably have taken it far more seriously than they actually did.

We mustn't give them credit for anything; they were the early deniers and paved the road for future disaster. She's checking out the IPCC climate reports and conferences and sees a bunch of alarming predictions based on actual events, increasing in frequency and intensity: prolonging droughts, scorching heatwaves, catastrophic downpours and floods, massive hurricanes, continent spanning migrations, countless crises, conflicts and territorial wars. All of that came true and then some. By now it had gotten way worse than even the worst-case scenarios predicted.

All the warning signs were there, shouting and smacking everybody in the face. They echo the punch lines her parents used to utter: 'Don't worry honey, by that time we'll have the technology to save the world. We'll suck all of the CO2 out of the air and invent a lot of cool machinery that will fix everything…'.

She jumps up to cry out 'what the hell they were thinking back then?!' But what can her parents do other than apologize? It's too late now. No crying over spilled milk that you don't even have to spill any more.

Well, apparently, there's nóthing anybody really did. CO2-output and CO2-levels kept rising at an accelerated rate and, as a consequence, the average global temperature rose far beyond the 'point of no return' at 1,5 degrees C. Yeah, she now understands why billions of people had to leave the coastal areas or had to migrate from countless hot zones at the equator towards cooler areas in the north. Because nobody was able or willing to stop the destructive path humanity was on. Nowadays, it's called a KEDN-experience: Knew Everything, Did Nothing.

She realizes, from this point on, things will get even worse. Because the global emissions of CO2 have risen to a gigantic 43 gigaton and the level of CO2 in the atmosphere has risen to 500 ppm. The global average surface temperature is expected to further rise from 2,5 to 4 degrees C within three decades, which will further trigger multiple climate tipping points and ruin her chances for well-being and a prosperous life.

A huge shift had happened and ruined her life anyway. And all the time her father was working hard to keep his business going, as everybody kept doing, because what could you do, money had to be made, bills had to be paid. If only they invested all that time, energy and capital in climate damage control.

And then suddenly, it struck midnight, 2050 had begun. It was the beginning of the global collapse of the suprasystemic infrastructure the human species had built with fossil fuels and wasn't willing to give up. And nobody was able to stop it anymore.

She closed the laptop, disconnected the solar panels and looked outside. It was her time to go outside to check the animal traps for rabbits, search for carrots, roots and nuts, cut wood for the stove and get water from the river. She had to go further and further away from the house, carrying knife and spear to not only hunt, but defend herself as well. It wasn't only animal predators that chased her. She sighed, closed her eyes for a moment, took a deep breath and went on her way.

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7.17
SM405
The dire consequences of overshoot

Those of you who follow me have seen me emphasize the existential problem of overshoot, as the superior problem to the inferior challenges of environmental pollution, deterioration of the biodiversity and global warming, on more than one occasion.

It is difficult to transfer my existential worries as to the survival of the human species to you guys, because we're talking about Big Problems here, with Big Consequences. It only seems to stick when I translate it to a level that we understand better: our small social groups of family, household, friends, colleagues and teammates.

However, no one can articulate the severity of overshoot as good as Dr. William E. Rees FRSC, Professor Emeritus at the University of British Columbia and former director of the School of Community and Regional Planning (SCARP) at UBC. Check it out for yourself:

https://www.resilience.org/stories/2019-11-12/dont-call-me-a-pessimist-on-climate-change-i-am-a-realist/

He authored this article in 2018. Now, almost five years later, I would like you to take some time to read it carefully first. And then I will ask you a question to conclude. Because we're on the brink of a new year: 2023 is coming. And this is where we stand since Rees authored his article:

— Global CO2-emissions are at 37 gigatons per year, expected to rise to 43 gigatons in 2050
— Global atmospheric CO2-level is at 420 ppm and rising to 500 ppm in 2050
— Global average surface temperature has risen to 1,2 degrees C above preindustrial level, rising to 2,5 degrees in 2050
— The Global World Product, the sum of all GDP's, is at $ 104 trillion, growing to $ 130 trillion in 2050
— Current world population is 8 billion people, growing to 10 billion in 2050.

Every human being wants to get rich, healthy, happy and grow old. Nobody wants to decline or reduce. Everybody wants to at least keep what they've got, preferably a little bit more. It's simply unsustainable. We really have a major problem on our hands and that scares the bejesus out of me. We don't seem to understand what it takes to mitigate our predicament.

I have seen Dr. Rees fall into silence mid-presentation once, almost into tears out of sheer frustration. Because his message doesn't seem to get through to our thick skulls. Overshoot is currently in its accelerating phase and the systemic collapse of our infrastructure is immanent. We might already see regional collapse of infrastructure in the next decade or so. Global collapse is a matter of a few decades more.

So, I would like to ask you this: what is the first thing that you're going to do right after reading this?

7.18
SM406
Our stubborn habits will do us in; not our ideas

Somebody posted a link to one of the many TED(x)-talks that float around the internet. They are all inspiring talks of 10 to 20 minutes, given by passionate speakers about a variety of subjects. Oftentimes a standing ovation is given by enthusiastic audiences all over the world that are easily impressed by the skills of the speaker, the mesmerizing images accompanying the talk and the overarching feeling of hope, belief and optimism about the future of mankind.

This was my response:

"Yes! Brilliant TED-talk. Brilliantly executed, checking all the boxes that make up a perfect TED-talk. Yes, we need to 'tap into and align with nature' and we 'mustn't put animals and plants in cages'. We must create 'non-human centered systems' and 'design for perpetuity'. But now what? What are we going to do after those 14 'well spent' minutes of our lifetime? How will it change our habits?

Don't get me wrong. It's not the speaker or even the TED-community that I'm addressing here. I've done a TED(x)-talk myself about my 5th book. Just google 'TED' and 'Futurology for Fanatics' and you'll see. So let me try to explain myself by quoting the TED-organization:

"The first TED Talks were posted online on June 27, 2006. By September, they had reached more than one million views. TED Talks proved so popular that in 2007, TED's website was relaunched around them, giving a global audience free access to some of the world's greatest thinkers, leaders and teachers [...]. To date, more than 13,000 [TED(x)-events] have been held in 150 countries."

That's impressive. But allow me to point out the irony here by providing you with the ultimate helicopter view:

— Since 2006, the year TED started its talks, we have added almost 600 gigatons of CO2 into the atmosphere.
— Since 2006 the level of CO2 has risen from 381 ppm to 420 ppm
— CO2-emissions are back at 37 gigatons per year
— CO2-level is expected to rise to 500 ppm in 2050
— CO2-emissions are expected to rise to 43 gigatons in 2050
— Average surface temperature has risen to 1,2 degrees C above preindustrial level, rising to 2,5 degrees in 2050
— Oil production is up to 100 million barrels per day
— Coal and gas production are up, not down
— The plans of the global community are to reduce greenhouse gas emissions to 0 (zero) by 2050. In actuality it will increase by at least 20% with no end in sight.
— Current world population is 8 billion, growing to 10 billion in 2050.

No book, article, study, blog, conference or TED(x)-talk has ever made the slightest difference. They haven't stopped the growth-economic machineries or the emission of greenhouse gasses whatsoever. We need to change our

perspective and focus on the collective results of the human species on this planet: all of us.

— *We don't need more TED-talks.*
— *We don't need more theories.*
— *We don't need more international conferences.*

We need to acknowledge the fact that no ecological revelation, no innovative solution, no brilliant hypothesis has ever made the slightest difference as to the direction we're headed. Before we produce any innovative ideas on how to make the world a better place (and humans a better species) we need to ask ourselves three fundamental questions:

1. *What are we going to do different this time?*
2. *Does it scale to global levels?*
3. *Does it really matter?*

Think about it. Please. It's our stubborn habits that will do us in, not our ideas."

7.19
SM407
When a population exceeds the carrying capacity of its habitat

The accompanying video by emeritus professor William Rees could drastically change your view of the life of Homo sapiens, the 'modern, wise, thinking man'.

Since the publication of my new book *De mens als grens* (*Our Inner Limits*) you have regularly seen me report on the phenomenon of overshoot or overconsumption. Environmental pollution, deterioration of the biodiversity and climate change are not core problems, but merely symptoms of the much larger problem of overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat. Overshoot isn't just beginning. This process has already been going on for more than half a century and is currently in its accelerating phase.

The reason I still focus on climate change in the second part of my book (in Chapter 8, *De klimaatconfrontatie* – The climate confrontation), is because its consequences are much more apparent: the weather is becoming more extreme and climate catastrophe are roaming the planet.

Earlier I reported on our dilemma as a human species. We devote most of our energy and interest in our day-to-day concerns within our small social groups of family, household, friends, colleagues and teammates. We are, as I call it, of 'supra-local orientation'. It's the nature of the beast, it's who we are. But

overshoot is an existential phenomenon: it threatens the long-term survival of the human species. I call that a “supra-systemic problem.” All of our energy and interest should go into thís, precisely because the systemic collapse of our infrastructure is no longer a vague academic theory, but concrete and current reality.

So, I'm going to try to lift you out of your daily chores. You don't have to watch the video right now — you're no doubt busy with all sorts of things and it takes about 22 minutes — but it would be great if you could put a note in your calendar to schedule some time for it. Because the message concerns us all.

It is a presentation in English, a YouTube video without subtitles, but you can of course turn them on at your convenience. The slides contain a relatively large amount of text and Professor Rees talks all the time, which could cause a short circuit in your brain; after all, we find it difficult to read and listen at the same time. But you can pause the video at any time to read the slides at your leisure.

Still, it's well worth your time because this is some serious shit! I don't believe there is a more important topic to worry about, anno 2022.

https://youtu.be/03nCFwhV-9E [‘Overshoot: the population-consumption conundrum’ by William E. Rees, PHD, FRSC]

See also Appendix IV.

Epilogue

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

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

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

Environmental pollution, biodiversity destruction 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 many greenhouse gases into our atmosphere that this year, 2023, we passed the 'elbow' of the exponential curve, the 'point of no return'. The atmosphere, biosphere,

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

The jet stream is meandering, the oceans and land are oversaturated with heat, the atmosphere with moisture and the ocean currents are destabilizing. 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? In any case, it is not 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, say about a hundred years, before the population begins to be seriously endangered. However, 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 own. And by continuing to burn fossil fuels until the very last moment.

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 are extinct. However, we are the only ones accelerating our own demise.

And that is why we can no longer call ourselves the species *Homo sapiens*, 'the wise, thinking, modern man'. From now on we are *Homo infantilicus*.

Bart Flos – Helmond | November 2023 – April 2024.

Appendix I

Blurb of 'Our Inner Limits – On the Unbending Barriers of Being'

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

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

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

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

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

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

Do you want to learn more? Go to www.demensalsgrens.nl

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 work together to fail.
2 — The Existence Paradox: we live together to become extinct.

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

This is the structure of my book:

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

PART 1 | PEOPLE AND ORGANIZATION

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

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

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

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

PART 2 | PEOPLE AND CIVILIZATION

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

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

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

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

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

Appendix III

The scientific method

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

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

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

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

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

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

(Source: Wikipedia).

Appendix IV

The concept of overshoot or overconsumption

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

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

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

[Wikipedia Profile]

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

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

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

https://youtu.be/LQTuDttP2Yg

['The Fundamental Issue: Overshoot']

And: https://youtu.be/U3GB191UDiI

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

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

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

['What is a sustainable population?']

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

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

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

Appendix V

Useful links

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

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

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

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

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

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

7. https://climatechangetracker.org/

8. https://climatechangetracker.org/igcc

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Fast forward to 2022

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

Fast forward to 2024

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

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

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