Bart Flos

OUR INNER LIMITS



<u>Addendum VII</u> The Big Problem:

Overconsumption



OUR INNER LIMITS

ADDENDUM VII

The Big Problem: Overconsumption

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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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 was true, I was sitting on a comfortable pink cloud and I was looking through rose-colored glasses, which turned out to be a cold, metal telephoto lens and microscope. It wasn't until I got into my helicopter, flew as high as I could and started looking down that the scales fell from my eyes.

Fast forward to 2022

Since the publication of *Futurology for Fanatics* more than half a billion people have been added to the population, we have emitted another 285 gigatons of CO2 and the atmospheric CO2-level has risen from 400 to 418 ppm. That has categorically transformed me from an incorrigible optimist to a '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 - March 2024.

Chapter 1

The frontal confrontation

1.1

SM425

Another report that won't change a damn thing

I read a report about climate change and it managed to combine the fact that we are in a destructive 'doom loop' leading to potential collapse and that 'there is still a possibility that we might keep the global average surface temperature below 1,5C', practically in the same sentence. Even worse was the suggestion to revert to geo-engineering, where we inundate Earth's atmosphere with chemicals, or shield us from the sun, to fix our existential predicament and limit global warming somehow, *without* breaking our filthy habits.

I find it unbelievably ignorant that we dare to suggest geo-engineering as a possible solution to our problems. Nope. Belay that. I want to retract that statement. I do not find it 'unbelievably ignorant' at all. I find it stark-ravingly mad that we once again turn to a report from a think tank that tells us that, because we haven't changed anything at all so far, we're now actually worse off than we were before.

I apologize. I withdraw that remark as well. I don't find it 'stark-ravingly mad', I find it funny. I find it funny that we've produced millions of climate reports, books, analysis and conferences, which didn't reduce global greenhouse emissions *át áll*, and that we yet again produce another one.

So, now what? What are we going to do? Huh? It's only getting worse at every turn and we're still hoping for some miracle that will fix it. What miracle? Where's the tipping point in our collective behavior? If it wasn't so dead serious and grim, it would be funny.

The world has 'pledged' to bring greenhouse gas emissions down to zero around 2050. At least, that's what they say in each climate conference. In fact, CO2-emissions for fossil fuels and industry are expected to rise to 43 gigatons. Who are we kidding? There's plenty of brilliant, green, innovative and sustainable ideas and initiatives going around, but at some point, you would expect these numbers to start going down. But they're all going up!

This report won't change a damn thing. No report ever has. No book, video, analysis or conference ever has. The only viable question to answer, if we want to escape the vicious circle of sheer stupidity, is: what are we going to do different this time?

1.2

SM427

Daring to use the word 'impossible' with an exclamation mark

A saw a post linking to an article that suggested that we, against all odds, considering the extreme weather and climate disasters washing over the planet, the fossil fuel industry abandoning their pledges and promises to phase out oil, gas, and coal and the combined economic plans of the 200 countries of the world to increase the burning of fossil fuels until at least 2050, can still limit global warming below 1,5C. It actually suggested that.

This was my response:

"Do I dare to use the word? Can I respond to this post in such a confrontational manner? Must it be me to rock the boat, rattle the cage instead of just ruffling up some feathers?

I guess so. Here goes:

- It is *impossible* to limit global warming at 1,5C!

There. I said it. I used the word and applied an exclamation point. It is *impossible, unachievable, unfeasible, out of the question, non-viable and unworkable* to limit global warming at 1,5C!

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The Big Problem: Overconsumption
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There. I said it again, using synonyms.

— It is *extremely likely* that the average global surface temperature will surpass the 2,5C marker by 2050, triggering climate tipping points along the way, which will cause a 'runaway climate' leading to a 'hothouse earth', the point of no return.

There. I've said that too.

There are these graphs inundating the internet, depicting greenhouse gas emissions on the y-axle and the time on the X-axle. It shows the actual progression to the left, ever increasing and never letting up, and the predicted progression to the right, with the 'now' in the middle. The predicted progression lines are shown as expected progress based on the different future emission scenarios, in turn based on the pledges and promises of the 200 countries of the world.

Most of these future curves take a steep dive towards the zero line, suggesting that we can still make it. As time progresses, the left curve keeps going up and the right curves, being attached to fixed base targets in the future, like 'net zero in 2050', are forced to make an even steeper dive down, with completely ridiculous angles, suggesting that we can still make it.

Oh, come on! Néver éver in the history of mankind has any curve declined that sharply due to voluntary actions by the human species. The only time it happens is when a suprasystem collapses in its entirety. In other words: only a disaster of gigantic proportions may drive a curve downward like that. I can't understand by the life of me why we still keep showing these prediction models

with theoretical straight lines to the bottom. It's pure theory and it's getting more ridiculous every turn we take.

Who are we kidding? There's plenty of brilliant, green, innovative and sustainable ideas and initiatives going around, but at some point, you would expect all of these curves to start going down. But they're all going up!

This report won't change a damn thing. No report will. No book, video, analysis or conference ever has. The only viable question to answer, if we want to escape the vicious circle of sheer stupidity, is: what are we going to do different this time?

1.3

SM430

Do you want to reduce?

Environmental pollution, destruction of the biodiversity and climate change are the great existential problems of our time. But are they actual core problems?

No, they are not. They are symptoms of a much bigger problem: overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat. Overshoot can drive a population to extinction. How do you make something like this tangible for every individual on earth, regardless of origin, culture, ideology, religion and geographical location?

Let's step into the helicopter and start off with an overview position as high as possible.

1 – The suprasystem

That is the planet earth with 8 billion human individuals. They all have to live, learn, study, work, survive and reproduce. And they have to eat, drink, urinate and defecate. Otherwise, we die.

2-Society

Every city, province, state and country have revenues and expenses. There are 200 countries in the world with their own priorities to run the economy. International cooperation? Fine. But our own country comes first.

3-The group

The large groups, our organizations, have revenues and expenses. The small groups of family, household, friends, colleagues and teammates depend on it. Collaborate with other groups? Fine, but our own group comes first.

4 – The individual

Whether you work as an employee, run your own business, receive benefits, retire or roam, you have an income and expenses. And you have to eat, drink, urinate and defecate every day, and be safe, dry and warm. But when push comes to shove, you take care of yourself first.

Wherever you are born as an individual, as a human being you are programmed by evolution and natural selection with a combined basic goal: survival and reproduction. You grow up, look for an income, a house and safe environment, transportation, a partner, children, lots of stuff. More income simply means more of all that.

There are 8 billion individuals on Earth. Every day, 240,000 new ones are added. That brings us to 10 billion by 2050. Every individual wants to become rich, healthy, happy and grow old. We currently burn 100 million barrels of oil, 22 million metric tons of coal and 11 billion cubic meters of natural gas per day. Every day we add 150 million tons of CO2-equivalent to the atmosphere.

That's all because no one wants to decline or reduce.

Just look at yourself. Have you ever said no to a promotion and/or salary increase? No to an inheritance? No to new customers and assignments? No to the gains on shares? No to easy money? Do you want to hand in 20% of your income and 50% of your savings to save the human species from extinction?

In short: do you want to decline or reduce? Oh, no? That's weird. Why not?

Something to quietly contemplate for a while, I would suggest.

1.4

SM431 What we really need to do

I believe we, the human species, in general and on average, don't understand the gravity of overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat (*). We have a tendency to focus on environmental pollution, or on destruction of the biodiversity, or on climate change. But those are mere symptoms of overshoot.

Spreading messages of hope, especially when they are technology based, or economy based (or both), are particularly dangerous, because it robs us from our sense of urgency, direction and purpose.

Here's what we really need to do to mitigate 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 actually dó something about our existential problems. Who's first in line to volunteer? Instead of spreading fairy tales about the solution to our existential predicament we

would all be wise to change our attitudes from pre-apocalyptic prevention to post-apocalyptic mitigation.

Do you want some more frontal confrontations with reality?

— There are 8 billion individuals on this planet. Every day 220.000 new ones are added. That brings us to 10 billion people by 2050. Every individual wants to become rich, healthy, happy and grow old.

 We currently burn 100 million barrels of oil, 22 million metric tons of coal and 11 billion cubic meters of natural gas every day.

- Each day we add 150 million tons of CO2-equivalent to the atmosphere.

— Current CO2-level in the atmosphere is 420 ppm and rising. That brings us to 500 ppm in 2050. The past 800.000 years Earth's atmosphere has never exceeded the 300-ppm marker.

— The average surface temperature is currently 1,2 degrees C above preindustrial levels. We might see the 1,5 degrees C barrier broken within the next decade. That brings us to more than 2 degrees of warming in 2050 and 3 to 4 degrees warming by the end of the century.

— Each tenth of a degree C we warm the atmosphere, the risk of a catastrophic cascade of climate tipping points grows larger. Climate change will escalate into a runaway climate, a 'hothouse earth', that's beyond our ability to repair.

In the 4,5-billion-year history of our planet, 99,99% of all species has become extinct. We are by no means an exception to that fact. But we are the only species that accelerates its own demise. That's not an achievement of any kind. That's sheer stupidity.

(*) See Appendix IV.

1.5

SM436

Gen Z is not going to change millions of years of evolution

I read an article from an author and entrepreneur in which he put his hope of improving the status quo of humankind into 'Gen Z', the new, fresh and young generation. 'OK', he argued, and I'm paraphrasing here, 'with all these young minds taking the streets and calling for action, something will change now. It must be, they're the young ones!'

This was my response:

"The tone of the message below is hopeful, because it suggests that the newest generation of people 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 hate to burst your bubble here, but 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?

Let's get something straight: Homo sapiens, the human species, is programmed by evolution and natural selection over hundreds of millions of years. Its mindset is that of a social group mammal, a hunter-gatherer. Homo sapiens, the 'wise, modern thinking man', walks the planet for something like 300.000 years, a mere 0,007% of Earth's existence. 'Modern times' covers only 0,07% of that period.

Sure, we have seen drastic changes in cultural aspects of human behavior. Growing up in 1823 or 1923 is vastly different from 2023. But make no mistake: being addicted to the internet and being glued to a smartphone doesn't negate the fact that our brain still thinks and acts like a hunter gatherer.

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.

Changing our culture doesn't change our genes. It takes hundreds of thousands to millions of years for the random mutations in our DNA to change our behavior as a species. The modern age hasn't even begún to make a difference.

Every one of the 2 billion individuals that are added to the current 8 billion by 2050 will want to get rich, healthy, happy and grow old. That implies striving for a safe environment, schooling, a partner, house, land, offspring, transportation, heating, cooling, a smartphone and lots of stuff. And when we have all that, we want more. Because nobody wants to decline. That's our evolutionary conundrum. Gen Z is not going to change anything about overshoot.

If you find that gloomy, negativistic even, there's a straightforward way to hold me to it. Just watch the yearly global emissions of greenhouse gasses. If all of these hopeful stories about a Brave New World are true, you would expect them to go dówn at some point.

Just check it out on a yearly basis and prove me wrong. I would lóve to bow my head and say 'I'm sorry, I was wrong. We are actually dóing something about overshoot.'

Really. I would."

1.6

SM442

Like we will always have time to fix our problems

I saw yet another post in my timeline describing the disturbing events all around the planet with the extreme weather and climate disasters increasing in frequency and intensity. In order to meet the targets and goals set for 2030 someone argued that 'we have to make haste', 'get things moving quickly' and 'really speed up our efforts' if we still wanted to reach those targets and goals.

This was my response:

"You say 'There is still 7 years of time', referring to the year 2030. And we have more deadlines in 2040, 2050, 2060 and 2070. What I find interesting is, that in some strange way, these deadlines all end with a zero, as if at exactly 00:00 hrs the crossed barrier triggers a worldwide sounding alarm bell or something. Let's get real and do some project management, shall we?

Originally all countries pledged to be carbon neutral with zero emissions by 2050, but India, China and Russia, good for more than 2/3 of global emissions, wiggled themselves out of that agreement and have pushed their deadlines to 2060 and 2070. But let's ignore that for now. If we want to reduce our CO2 emissions to 50% in 2030, we have to go back from 54 gigaton of CO2-equivalent to 27 gigaton. That's 3,9 gigaton per year, or 320 million tons each month.

Currently we add 150 million tons of CO2-equivalent to the atmosphere each month. The current economic planning of the 200 countries in the world aim for an increase (!) of emissions of CO2-equivalent of 320 million ton each year or 27 million ton each month. So, what do you mean 'there's still time?' I don't follow. On and by the way, the 28th climate conference this year is chaired by an oil sheik, for crying out loud. I'm just saying.

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.

'We still have time' = false hope.

Overshoot is currently in its accelerating phase. Focusing on either symptom, like making biodiversity appear more important than climate change or vice versa, doesn't add value.

'People Power' doesn't exist. In the current growth-economic suprasystem the people have no power at all.

'The most brilliant thing the devil did was to convince people that he doesn't exist'.

The most devilish thing the Big X ever did was to introduce the slogan 'A better world / environment / climate starts with you!' Brilliantly done. There's no specific emergency that will 'hit' us in any year in the future. Suprasystemic infrastructural collapse is an accelerating phenomenon. Each generation will be exponentially worse off than the previous one. But overshoot is not a

meteorite. No big explosion will follow. Each year will get exponentially worse until we're beyond ecological repair.

Something to quietly contemplate, I would suggest.

PS – It's not that I only see problems. I do have solutions as well and I provide with lots of them in my book *De mens als grens* (Our Inner Limits). Overshoot is the result of a low mature civilization. Just as an organization can be low in maturity, an entire civilization can be as well. We need highly mature individuals to form highly mature groups that build a highly mature society and suprasystem."

1.7

SM449

A new proposal to deal with our existential dilemma

Something interesting is going on. Actually, it's not so much interesting as it is disconcerting. The day before yesterday, on Monday March 20th of 2023, the IPCC assessment report (AR6) came out, as a result of 'an eight-year undertaking from the world's most authoritative body on climate change'.

'Our situation is dire!'

It sparked news cycles all over the world and temporarily superseded the inundation of our daily lives with enough trivial shit to drive someone mad: culinary curiosities, gossip on celebrities, petty politics, sports events, car and plane crashes, a bit of war and destruction and a lot of supralocal and regional concerns.

But I just checked the timeline of three major news outlets in The Netherlands: it's all gone! Climate change has left the building. It is washed away by trivialities within a day. Just like it did after the previous 5 reports and previous 27 (!) climate conferences. And just like it will with the 7th report and the 28th climate conference.

With each new climate report, analysis, book, article and conference our existential predicament has gotten worse. We're in the accelerating phase of

overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat. It's triggering tipping points that, by now, drives the damage to our living environment beyond economic and ecological repair. And we're back worrying about trivialities and daily worries, retreating into our daily lives with family, household, friends, colleagues and teammates.

So, if that is the case, if overshoot is equally important as trivial news, let's just try something new, shall we? I have a new proposal to deal with our existential dilemma and immanent extinction.

 Stop making these damned reports and organizing these useless conferences. They change diddly squat.

- Stop spreading the message of hope that 'it's not too late, we can still fix it, if only we start nów'. It has lost its credibility completely.

- Start preparing for the worst-case scenario: that we as a species will not break our neoliberal, capitalistic, consumeristic, growth-economic, freemarket-habits and therefor will cause our own extinction.

— Change your attitude from 'pre-apocalyptic prevention' to 'postapocalyptic mitigation': let it go, just assume it will all go down in the end and make the best of your life while you still can.

Enjoy your living environment as it is now. Cherish your partner, family, children and friends. Go out and enjoy nature, live your life the best way you can and be as resilient as possible for what's coming.

Because if we keep ignoring all the warning signs, why bother?

1.8

SM457

Letter to a group of incorrigible optimists

Hi guys,

Thanks for trying to make this world a better place. I used to be where you are at. Eight years ago, I wrote my 5th book, *Vooruitkijken voor gevorderden — Hoop voor de toekomst van mensaap en moederplaneet*, which translates to 'Futurology for Fanatics — Hope for the Future of Man Ape and Mother Planet'.

www.vooruitkijkenvoorgevorderden.nl

I also called myself an incorrigible optimist then and though I address the serious challenges mankind faces, I knocked them all of out of the park by looking 100, 1.000 and even 10.000 years ahead. I even did a TED(x)-talk on it in Amsterdam

https://youtu.be/bpJiUcwXHDQ

Six years later I started doing research for my 6th book. I was truly disconcerted about the events unfolding all over the planet and I wanted to spend considerable time investigating the dark clouds that were hanging over my, what appeared to be, overly optimistic view of the future of mankind.

After two years of extensive research, I published my sixth book in December of 2022, titled *De mens als grens — Over de onbuigzame barrières van ons*

bestaan, which translates into 'Our Inner Limits — On the Unbending Barriers of Being'.

www.demensalsgrens.nl

I have 10 WordPress websites running, all in Dutch, my websites are mostly in Dutch, but *Google Translate Websites* works miracles here, and leaves the structure of the site intact. My websites act as management summaries of my books.

In my latest book I post five existential hypothesis that I challenge the reader to falsify. The entire premise of my book is based on two frontally confronting paradoxes:

1 - The collaboration paradox: we work together to fail2 - The existence paradox: we live together to get extinct

To make my point I apply two principles throughout my book:

1 - De verwantschapscirkel (the circle of kinship / relationship / affinity)It starts with the individual and with each growing circle I address the group, the society and the suprasystem: planet Earth and its dominant species Homo sapiens.

2 — Das Gesamtergebnis (a German word for 'the total end result') The only thing that counts is the ultimate consequence of our behavior as a species on this planet. Therefor it doesn't matter what individual, local or even regional initiatives we take to make this world a better place, if it doesn't improve the end result on a global scale and in the long run, it is futile.

During the two years of my research, I have read over 300 books and explored countless scientific studies. I have a feeling that I've seen 'all' the works published about the existential problem we face, the cause, the consequences and the solutions. And that's where we get to the bottom of our problem: it apparently doesn't matter what we write down or talk about: nothing changes.

Over the past half century, we have produced countless climate books, reports, analysis and conferences and none of them has had any significant influence in the growth of the world population, the GWP and the emission of greenhouse gasses. None whatsoever. It's quite disconcerting really.

And now our atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have entered a state of cascade failure, the prelude to suprasystemic collapse. We have passed 'the elbow' of the exponential curve and it's out of our hands now. We've waited too long and it's too late. The events that are unfolding before our very eyes in real time scare the bejesus out of me. Ocean temperatures are off the charts, heatwaves cover entire hemispheres and the jetstream is meandering profusely. And we're only at 1,2C of warming.

I'm sure you guys are coming up with a whole bunch of hopeful solutions that, in theory, might enable us to mitigate the situation and even reverse some of it damaging effects. Trust me, I've read them 'all'; the solutions, initiatives and proposals to finally start cracking and get the show on the road. But nothing scales up to global levels. None of the 27 climate conferences have had any influence on the economic plans of the 200 countries of the world. None! The 28th GOP is chaired by an oil sheik, for crying out loud!

The fossil fuel industry is withdrawing from their own commitments to transform to a sustainable society, hoping to squeeze the last drop of profit and

shareholders value out of a dire situation. Meanwhile the world is turning to the right, where climate change is depicted as 'a hoax of the woke elite'. Oh, for Pete's Sake! I find it baffling that people still profusely deny what's happening right in front of them, all over the planet. It makes no sense. We're not Homo sapiens, we're *Homo infantilicus*.

It took eight years to change me from an incorrigible optimist to a selfpronounced 'confrontealist'. Because only a frontal confrontation with reality might open our eyes to what's coming.

Look, I'm happy to talk to you guys. Because I've done the work, I've studied the matter extensively and intensively. So be prepared for me not wanting to go into the details of your proposals to solve our problems. Because I knów the solutions, I've read them all, heck, in my fifth and sixth book I propose a bunch myself. But the only viable approach of any discussion about any solution, at this point in time, is answering the questions 'does it scale?' and 'how and when might we apply this across all nations if the world'.

Because if you guys don't have a concrete plan, project or program to scale up whatever you've got, to finally get a crack at actually doing something about it, and scale it up fast, across all of the 200 countries of the world, it don't know why we should bother at all any more.

The past ten months I have written over 450 posts on LinkedIn [around August of 2023]. Check out my profile, because it reveals exactly where I stand in this.

I'm not an alarmist or a doomsday preacher. I do not climb to the rooftops in my underwear with a six-week-old beard shouting that we're all DOOMED and we're all going to DIE. I've done the math, studied the scientific research on

the matter, since I'm dedicated to science, to the scientific method and the scientific community.

And the science says that we have forced our hand, driving the planet towards a new equilibrium. I'm not sure Homo sapiens will earn a place in it. Maybe we don't deserve it, because we really fucked it up this time, in real time ('Don't Look Up').

Talk to you soon, I'm sure. Take care. Cheers."

SM470

The ultimate taboo: enforced population decline

Somebody wrote to me:

"We don't have a human overpopulation problem. We have a livestock overpopulation problem. Let's stop exterminating 80 billion animals each year."

This was my response:

"You're right that we don't have a human overpopulation problem. We have a human overconsumption problem!

- 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.

The 'livestock overpopulation problem' you are describing is not a problem but a symptom of overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat (see Appendix IV).

The 'lack of compassion problem' you're describing is an attribute of the human species. Evolution and natural selection have programmed us to survive and procreate. That biological process is completely blind to and totally indifferent about the consequences of our collective behavior.

In general, and on a global level we are all, as a species, single-minded, shortsighted and selfish. We care about ourselves and our small social groups first. We are only worried about and interested in things close by in both time and geography. What we don't see, we don't (want to) know.

The bio-industry is carefully obscured from the population. We don't see the horrifying daily torture and killing of billions of animals, because that would make us sick to our stomachs. And it's not good for business. On average and on a global scale, each and every one of the 80 million individuals that are added to the human population every year, wants to get rich, healthy, happy and grow old. Nobody wants to decline or reduce. Everybody wants to keep at least what they've got, preferably a little bit more. It's simply unsustainable.

I understand your passion about the horrific bio-industry. It's a perpetual massacre, an abomination. But focusing solely on that, or solely on the destruction of the biodiversity, or on environmental pollution, or on climate change, is symptoms fighting. If we flip the 1% yearly population increase to 1% decline, we'll get to 6 billion in 2050 instead of 10 billion. That's a good start. If we keep going, we'll reach 1,3 billion by 2200. That's the perfect number.

The great taboo of our lifetime is enforced population decline. It's the elephant in the room.

SM473

What does 1% population decline per year actually mean?

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

Homo sapiens, the "wise, modern, thinking man," is, from a 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 go decline or decrease. We all want to keep at least what we've got, preferably a little bit 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 up too much.

Population reduction is the only solution. With a population decline of 1% per year, we will have 6 billion people in 2050 and 1.3 billion by 2200. That's the ideal number. Now please allow me to boil that down to my country of origin.

The Netherlands has about 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 can be born every year.

But 1% shrinkage per year means that a net 175,000 people per year have to be 'subtracted'. That means that the population must be, ehm, 'reduced' by at least 5,000 extra people per year. The simple conclusion is that no one in the Netherlands is allowed to become pregnant! The population will not decrease by itself and those 5,000 extra 'fewer people' per year will have to get actively, eh, 'reduced'.

Do you feel that very icky, uncomfortable feeling coming on? Get the taboo yet? No one is allowed to get pregnant anymore and every year 5,000 people will have to be 'reduced', on top of the people who die every year anyway, so that every 10 years 1.75 million people 'go away'. In that pace we will have 13.4 million inhabitants in 2050 and in 2200 to 2.9 million. That is the target number for the end of the century.

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

Doesn't feel good, does it? Because how do you do something like that? And of course, it applies to all 200 countries of the world. Everyone must realize a 1% shrinkage everywhere to reach 1.3 billion people worldwide by 2200. Doing nothing will bring us to 10 billion consuming people in 2050. If we cannot reduce our consumption, what alternatives do we have?

SM488

About losing time as we're moving along

A saw a post referring to a video that gave a solid description of our existential predicament with the environment, biodiversity and climate and listing a number of solutions to be implemented during the course of the next decade, 'before it is too late'.

This was my response:

"Stop, wait! This video is almost 3 years old! We don't have 10 years to transform the future of humanity, we only have 7 years left. Do you want to know what we did in the past 3 years? Have we reduced our emissions? Have we promoted carbon sinks? Have we done ánything to mitigate our existential predicament on a global scale?

This is what we've done in the past 3 years [2020 - 2023]:

- We've burned 100 billion barrels of oil, 22 billion metric tons of coal and 11.000 billion cubic meters of natural gas.

- We've produced 210 million non-electrical vehicles, 1 billion metric tons of plastic, 5,5 billion tons of waste and 11 billion tons of concrete.

— We have increased the world's population with 220 million people to 8 billion, all wanting to get rich, healthy, happy and grow old.

- We have added 150 billion tons of CO2-equivalent to the atmosphere every single day, raising the CO2-level to 420 ppm, going for 500 ppm by 2050.

- We have forced the atmosphere, biosphere, lithosphere, the hydrosphere and cryosphere into a state of cascade failure, the prelude to suprasystemic collapse (*).

We know everything there is to know about our predicament. It's all been said and written down already or recorded in videos and TED(x)-talks.

Now, based on these facts, what do you think will happen in the next 3 years, or 10, or 25?

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

Chapter 2

Looking down from above

2.1

SM411

How something that seems good can actually be very bad

Have you ever heard of Hans Rosling? Please allow me to quote from my own work:

Hans Rosling was a Swedish physician and professor of International Health at the Karolinska Institute and director of the Gapminder Foundation. He is my hero when it comes to the visualization of complex subjects.

On YouTube you can find an absolutely brilliant video in which he shows the progress of two hundred countries over two hundred years in four minutes. He literally steps into his three-dimensional graph and shows how all the countries of the world move from the corner of "poor and unhealthy" at the bottom left to "rich and healthy" at the top right" ('De mens als grens', page 206).

Have a look for yourself:

https://youtu.be/jbkSRLYSojo

Brilliant presentation, huh? Yet there is something horribly wrong with it. Allow me to explain.

In my book *De mens als grens* (Our Inner Limits) I present five hypotheses that I ask the reader to falsify, that is, I ask them to come up with information that disproves them. One of those five is perhaps the most controversial in my book and reads as follows:

"All the progress of modern man is to be regarded as collateral benefit, mock profit and coincidental gain; the opposite of collateral damage, actual harm and deliberate destruction. The primary goals of mankind are not aimed at achieving an equal level of well-being, well-being and prosperity for all. In fact, our primary objectives are the opposite of this."

That's quite something, isn't it? None of the progress we have made as humanity in nutrition, sanitation, life expectancy, poverty, violence, the environment, literacy, freedom, and equality has come from primary motivation. It is just a side effect of our actions.

Think about it: "Rosling's progress," as I call it in my books, is a steady upward trend from the bottom left to the top right corner. The steady pace is not even stopped by the horrors of the First and Second World Wars. At the time I saw that as something hopeful, as something positive. But back then I was still an incorrigible optimist, wasn't I? The *confrontealist* I am today sees it very differently. Let's just add two upward lines to Rosling's, over the same time

span, and you'll see what I'm talking about: GDP and greenhouse gas emissions. They are rising just as fast!

Environmental pollution, the destruction of the biodiversity and climate change are the logical consequences of "Rosling's progress": they are symptoms of overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat. In practice, that beautiful visualization turns out to be 'Rosling's decline'.

So, you see, sometimes something that seems good can turn out to be something unbelievably bad.

SM412

What would you do if your work caused harm?

It was astonishing news: with all the extreme weather and climate disasters washing over the planet in 2023, oil companies, including Exxon, just blatantly announced that were 'adjusting' their targets to phase out the excavation and production of fossil fuels, contradictory to their earlier 'promises and pledges'. This created outrage amongst climate activists, naturally, and for a while it was all you could read on their timelines.

Now, before we shake our heads in utter indignation at so much injustice and go back to what we were doing, it doesn't hurt to ask ourselves a few key questions:

- Why did the Exxon executives do this?
- Why have they concealed the truth?

Before we point the finger of blame at Exxon, we should realize that there's always three fingers pointing back at ourselves. Allow me to explain that with an example.

Imagine, you have developed a product or service around which you have built a business that provides you with your income. Or you work for such a company. You have successfully scaled up your product or service and you

make a good living out of it. House, car, lots of stuff. Children can go to good schools. Four times a year on a luxurious holiday. But you also have a student debt, mortgage debt, loans, credits, fixed costs, personnel costs, tax debt. And now it turns out that your product or service is harmful. Bad. Unhealthy. Dangerous.

Shit. Now what?

Are you now going to your knees in a cry of self-consciousness and regret, shouting that you will right all wrongs, withdraw your capital from the accounts in the Cayman Islands, sell your houses and cars and volunteer at a repair shop? If you have a well-paid job in the tobacco, weapons, oil or plastics industry and you find out that it pollutes the environment, destroys the biodiversity and changes the climate, do you raise your hands in deep self-awareness and then give up your job to do volunteer work at the municipal landfill?

What do you think?

All people on this planet reside in small social groups of family, household, friends, colleagues and teammates. All those people want 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 bit more. We need an income to live, learn, work and have a little fun too. Once we get used to that income, we want more. Always more.

All these small groups have exactly the same basic needs: survival and reproduction. If necessary, at the expense of others and, if necessary, at the expense of the environment. The higher you rise in the human hierarchies, the

more strength, power, influence and control you accumulate. And the more wealth and capital. Those Exxon executives reason just like you and me: I want to keep what I have and if there is room for more, then I want that too.

Let me ask you: have you ever said 'no' to a salary increase? Denied a promotion? Donated the proceeds of your investment profits to a worthy cause? Nót invested the profit on the sale of your house in your next, bigger house? Done five years with your smartphone? Fifteen years with the same car? Nót bought new stuff when the old stuff still sufficed?

Those three fingers pointing back at you hurt quite a bit as they poke your own chest repeatedly.

SM415

'Reversed empathy': what would you do if you were filthy rich?

Yes, there was another get together of the WEF, the *World Economic Forum*. And yes, the filthy rich flew there with their private jets in such numbers, that they had to reserve two whole airports to accommodate them. Yes, that's outrageous and incomprehensible for us simple folk. 'It's ridiculous!', we cry. 'Something must be done immediately!'

Yeah, right. Let's stop being so indignant and self-righteous, shall we? If we want to understand why the obscenely rich behave in such a manner, we need to change the way we look at them. There are three things to consider here:

1. Learn to apply 'reversed empathy'.

Empathy is the ability to put yourself into the feelings of others. Reversed empathy is to put yourself into the, from your standpoint that is, negative feelings of others. In other words: we must put ourselves into the mindset of the filthy rich, the 'I'm so wealthy I don't give a flying fuck about other people's feelings'-people.

2. These obscenely rich people are surrounded by and only talk to their own kind.

They are constantly reinforced by their own small groups of family, household, friends, colleagues and teammates, which tell them continuously that it is 'good' what they do.

- 'Fly the jet to the summit?' 'For sure. Which one?'

Stay at the most luxurious resorts?' 'Absolutely. The more stars the better'
'Take the Rolls-Royce from workshop to workshop?' 'Of course. Chill the champagne!'

3. These obscenely rich people see their own behavior as 'normal'.

In their minds it is perfectly all right to 'take the jet'. 'All the others do it too, so why wouldn't I?' They constantly conform to behavior that is 'normal' within their own social groups of peers. After a while your rich behavior becomes the 'new normal'. If you're surrounded by the rich you become one of them. You can't survive there if you keep up your bourgeois attitude.

Do you see? We must understand their mindset, because they reason just like you and I do. If you have the money, you spend it. If you have a shitload of money, you show it off. And of course, I'm being a tad sarcastic here. But I'm also dead serious. 'If you can't beat them, join them', in this case at the cognitive level.

The only way to get the filthy rich out of their comfort zones, their safe socially reenforced environments, is to learn to think the way they do, understand the specific habitat they populate and to get them where it hurts: taxes and subsidies.

 Introduce progressive tax reform but optimize it so they don't burn their cash in a spending rage.

- Take away all subsidies on fossil fuels, plastics production and other environmental polluting activities.

 Change the laws on tax evasion and tax avoidance and eliminate all tax havens.

- Enforce equal pay: if the puissant rich increase their income by 20%, all employees get a 20% pay raise.

- Correct the minimum wage for inflation over the past thirty years and then double it.

If you find that a tad naive then at least enjoy the thought for a little while. Remember: as a long us we keep hiding out in our own small social groups, conforming to each other and condemning all outsiders for what they say and do, we're no better or smarter than the obscenely rich taking their private jets to Davos.

Think about it. That's all I ask.

https://www.greenpeace.org/international/press-release/57867/hundredsof-ultra-short-private-jet-flights-to-davos-world-economic-forum/

SM428

Going from incorrigible optimist to 'confrontealist'

Over the past half century, countless reports, analysis, articles and videos have been produced on the subject of climate change, varying from detailed and practically unreadable scientific studies to simplified 'popular-scientific' articles for everybody to understand, including hilarious storytelling about grim existential predicament.

Most articles focus mainly on climate change, which is perfectly understandable. I do that too, because it is the global phenomenon that actually smacks us in the face on a daily basis. Climate change however is simply more visible and tangible. But environmental pollution, destruction of the biodiversity and climate change are symptoms of the actual overarching issue: overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat. In terms of overshoot, we can't say that it is just beginning. Overshoot is already going on for more than half a century and currently in its acceleration phase.

Why do we let this happen?

After two years of extensive research into *La Condition Humaine*, I've authored a whole book on the subject. I've also setup a website that acts as a management summary of my book:

https://www.demensalsgrens.nl

As a species, we're in quite a predicament for sure. So where do I propose we proceed from here? It is threefold:

1 — We should all change our pre-apocalyptic preventive attitude into a postapocalyptic mitigative attitude. Suprasystemic environmental collapse is immanent.

2 — We must focus more on the nature of the beast ('de aard van het beestje') in terms of evolution and natural selection. What elementary behavioral properties drive individual human beings and how does that effect the small social groups that surround them?

3- We must stop driving the 'hope machine' by suggesting that its not to too late and we can still fix it.

Look, don't get me wrong here. I'm not a doomsday preacher. Seven years ago, when I published my 5th book, I was an incorrigible optimist:

https://www.vooruitkijkenvoorgevorderden.nl

I've even done a TEDx-talk about it:

https://youtu.be/bpJiUcwXHDQ

But current events have transformed me into a 'confrontealist'. Because only a frontal conformation with reality might wake us up to start facing the actual existential facts. That's why I start my book *De mens als grens* (Óur Inner Limits') with two paradoxes:

- 1. The collaboration paradox: we work together to fail.
- 2. The existence paradox: we live together to get extinct.

Provocative for sure and I spend 384 pages passionately trying to solve these paradoxes. Because the clue lies in our very nature. Sure, the human species is capable of cooperation on a global scale and we now completely dominate the planet. But as a species we are also single-minded, short-sighted and selfish. We are with 8 billion people on this planet, growing to 10 billion in 2050. All of these individuals 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.

SM434 Why I rattle the cage

I have spooked a lot of people with my 'list of 7' things that we must do to mitigate the consequences of overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat.

Here it is:

- 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 actually dó something about overshoot. And by the way: environmental pollution, destruction of the biodiversity and climate change are mere symptoms of overshoot.

Why do people freak out over this list? Because they do not understand what it means when I say that it is the 'energy-equivalent'. It is a way to underscore the giant undertaking we're confronted with and that we won't be able to mitigate overshoot by rearranging the deck chairs on the Titanic.

Still, I hear it out loud: 'that's totally unacceptable!' Like we're saying, 'there must be another way!' I think my 'list of 7' is unacceptable to all of us, that is to say, on average for the human species, because it's way too confrontational. It's way too 'smack in the face'. But in fact, it is what we need to do because if you mirror the list of 7, you're confronted with the very causes of overshoot. If you were to disagree with me, which is perfectly fine, I would ask you to respond to the following:

1 - Despite all of the efforts on local, regional and even national level to develop a sustainable society for all of human kind, it hasn't changed the increase of (1) the GWP, (2) the world population, (3) the emission of greenhouse gasses, (4) the CO2-level in the atmosphere and (5) the average global surface temperature.

2 — None of the 27 climate conferences has changed anything about these five accelerating aspects of human growth and development. No real commitments were made and no penalties were applied. The 28th climate conference is going to chaired by an oil sheik.

3 — Countless reports on environmental pollution, destruction of the biodiversity and climate change over the past half century have shown no improvement on average, on a global scale. In fact, each report is worse than then the one before. But we still keep saying 'it's not too late, we can still do something about it'.

4 — If any of the local, regional, national or international endeavors to strive for a more durable, green and sustainable world during the past half century had any merit, you would expect these numbers to go down. But they're all

going úp. The only events that cause a temporary decrease in the emissions of greenhouse gasses are global financial crisis and pandemics.

These facts are undisputed. Can you please explain that to me, like I'm eight years old?

SM437

Why local initiatives won't make a global difference

I noticed a post on *LinkedIn* from an entrepreneur that changed his business model from advising organizations about organizational change to advising people about civilizational change towards climate change. Het encouraged small groups to jointly watch the video documentaries he had made to underpin his initiative to grow awareness and stimulate action.

Hear, hear!

This was my reply:

"Thanks for your passionate presentation. It shows that you speak from the heart. It is a sight for sour eyes to see the engagement, the involvement and the enthusiasm that accompanies the brilliant initiatives that are popping up, have been popping up for over half a century now, everywhere, to make this world a better place. I also like your approach of gathering small groups to do this together. Because as an individual our influence is unmeasurably small, but in numbers, with millions of us, we can really make a difference.

Right? Well, yeah. In theory.

Because your initiative must be scaled up like we have scaled up the economy in the past. It will take tens of millions of people across two hundred different counties to pull this off. I'm sure that's your objective as well, but it has also been the objective of every similar initiative over the past half century. History is littered with good intentions in general and brilliant ideas in particular to mitigate overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat.

Environmental pollution, destruction of the biodiversity and climate change are mere symptoms of overshoot. The only reason why the focus is so much on climate change — mine is too — is because it shows its ugly colors more explicitly. Be that as it may, none of the 'millions of climate reports, analysis, books, talks, videos, presentations, seminars or conferences over the past half century has made the slightest difference to the increase of greenhouse gas emissions and the growth of the world population. None!

There have been 27 (!) international climate conferences and they haven't changed anything about the status quo. The 28th climate conference will be chaired by an oil sheik. Einstein supposedly said, but it's probably apocryphal, that what intrigued him the most about the human species was, that we keep on trying to change things the same way whilst expecting a different result every time. It is also called the definition of insanity. With that in mind, the only viable question is: what are we going to do differently this time?

I'm sure you think your approach is different. But only if you are able to scale this up, across the borders of two hundred countries, changing global politics along the way and making us all 'do more with less', your initiative, I'm sorry to say, won't change a damn thing. It will only temporarily ruffle up some feathers. Whatever we as a species come up with to make this world a better place, it must measurably reduce the global emissions of greenhouse gasses. They have been going up for two hundred years now and they are still going up today.

What are you doing differently to change that fact? I'm just asking."

SM459

Why good and bad leaders don't exist

Depending on where you stand in life – where you were born, where you grew up, what kind of attributes you inherited from your parents, where you went to school, what kind of career you chose (of were forced to follow), how much luck or misfortune came your way and how chaos and coincidence got a hold of you – you have seen 'good' and 'bad' leaders pass you by. You have always known what a 'good' or a 'bad' leader was, because that's how it always felt like to you.

But both 'good' and 'bad' leaders don't exist! 'Good' and 'bad' are subjective connotation stickers that only human beings put on other human beings and on other things. Nature doesn't care about these connotations. It is what it is and if you're not careful you might not procreate and then you're biologically (and from the standpoint of evolution and natural selection) useless.

Still, we think we can distinguish objectively between a 'good' and a 'bad' leader, based on the concrete and visible output of what they say and do. But even that is irrelevant. What is a 'bad' outcome for the one, might be a 'good outcome for the other. We shouldn't ask our leaders if they think their leadership skills are 'good' or 'bad' either. Because independently of who you ask, they will all think their actions are 'good' and seldomly attach any negative connotations to their leadership, like 'I suck at it' or 'really, all I do is try and most of the time a make a complete mess of things'.

If we want to understand why the behavior of a leader can be 'bad' to our standards, but people still follow and worship that leader, we must apply something counterintuitive: *negative empathy*: we must put ourselves in the shoes of people who are 'negative', 'bad' or 'repulsive'.

Let me try to explain that by giving you this fictive answer of a follower of a political leader you think is 'bad'. If you were to ask them 'why do you follow this leader', this is what they would answer:

"I like strong leaders. They mean what they say and do what they mean. I will always vote for my leader, because he knows what needs to be done. We should all follow him, because he will lead us to a better place. I am emboldened by my leader. What our movement does might be rough at times, but otherwise we get nothing done. The others simply don't understand that.

We like the speeches and rallies of our leader, because it brings us together. It's the truth. If you ask me, I find it invigorating. He knows what's best for us, so who am I to judge? It's far better than to believe the fake news media and their so called 'science'. Science is just another opinion.

We don't like outsiders, because they try to enforce their radical left wing woke nonsense upon us. That will néver happen. Nobody tells us what to do! We simply won't let them get to us with their devious ideas. We know what's right and what's wrong and sometimes, if you want something done, the wrong is the only right way.

The others try to impose their double standards on us, their judgements and opinions. They don't have any principles and I find all of them a bunch of hypocrites. Look at what the lefties are saying all the time! They're so scared,

so self-righteous, so ill-informed and so dogmatic, that nothing you can say or do will change their minds.

They say we're in a cult, but I don't mind. I lóve being in a cult! I would proudly march to the capital again to cheer for my leader, because he knows best. He knows what needs to be done to make my country great again, to feel proud again of who we are. There's nothing I wouldn't do for my leader, because he's the one protecting us from evil. I believe in him all the way, and I will take his marching orders every day and twice on Sunday.

We will never let up and we will never go away!"

See what I mean? They are perfectly fine with the behavior of their leader, whether you like it or not. What their leader does is 'good', 'strong', 'necessary', 'encouraging' and 'brilliant', whether you think it's 'bad', 'weak', unnecessary', 'demotivating' and 'stupid'.

This kind of polarization finds its origin in evolution and natural selection. Within the small social groups and tribes of hunter-gathers, we had to stick to the group's opinion in order to survive. If you deviated too much from the tribe's opinion, you'd run the risk of excommunication. Once we have conformed to the tribe's culture, it's exceedingly difficult to change. Our opinion, derived from the group's opinion, is a solemn oath, it's the basis of our belief system, it defines who we are. If we let that go, we're lost.

Pointing at others and condemning their behavior is not going to stop polarization. It will only enhance it.

SM464

Why we focus on the wrong things

I saw a post referring to an article solely focusing on lack of proper water treatment as the cause of pollution by plastics and 'forever chemicals'. It contained advice, inventions and solutions on how to improve water treatment in general, with a specific country as example.

This was my response:

"Plastics or chemicals are not the problem. Lack of water treatment is not the problem: even global environmental pollution is not the problem.

The decline of the insect population is not the problem. Acidification and deoxygenation of the oceans is not the problem: even the destruction of the biodiversity is not the problem.

CO2- and methane emissions are not the problem. Increasing oil, gas and coal production is not the problem: even climate change is not the problem.

Environmental pollution, biodiversity loss and climate change are all mere symptoms of the overarching issue, our Big Existential Predicament: ecological overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat (*).

The current world population is at 8 billion people, growing with about 1% per year. That adds 80 million people to the equation every year, growing to 10 billion in 2050. Each and every of these new human individuals 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.

Thinking about population reduction is taboo. If we were to reduce the human population by 1% yearly, we would reach 6 billion people in 2050 (a good start) and 1,3 billion by 2200 (the ideal number). If we don't do it ourselves, I'm afraid it will be done for us. Mercilessly.

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

SM487

Plain and simple, yet quite disconcerting

'The planet will continue to evolve', someone wrote as a response to the extreme weather and climate disasters washing over the planet. This was my response:

"The planet will. For sure. Our planet is 4,5 billion years old and will have 5 billion more years to go before it dies, swelling up like a big red balloon encompassing most of its orbiting planets. Our planet will eventually evaporate and become part of a big dust cloud surrounding the remains of our sun. Such is life in the universe we know, which is 13,7 billion years old. Even our universe will die in the long run, but that's far beyond our reach of understanding, because it will take 10 to the power of 100 (!) years to complete.

But we, the human species, will we continue to evolve?

As a species we've been around for about 300.000 years, about 0,007% of the age of our planet. For about 97% of that time, we were hunter-gatherers, roaming the savannas in small social groups. About 10.000 years ago we started the Agricultural Revolution, followed by the Industrial Revolution about 200 years ago. We grew our population from less than a billion people to the current 8 billion.

We have now emitted 1.500 gigaton of cumulative CO2 and raised the atmospheric CO2-level from 280 to 420 ppm, growing to 500 ppm in 2050, when we'll be with 10 billion people. By that time, we will have added another 1.000 gigaton of CO2 to the atmosphere.

So no, we will nót continue to evolve. If we keep this up, we will get extinct. Plain and simple, yet quite disconcerting, don't you find?"

SM493 How hope works

Someone wrote a post about hope. That, whatever may happen with our living environment due to environmental pollution, destruction of biodiversity and climate change, we must never lose hope.

This was my response:

"I find it difficult to comment, because I understand this type of messaging. It is based on a perfectly understandable, but black and white perspective of hope:

- 'If we lose hope, all is lost'.

- 'If we believe we are doomed, all is lost'.
- 'If we go down the road of desperation, all is lost'.

But that is not how hope works. It is not something you háve to hold on to, whatever happens. It's not that you're a bad person when you dón't cling on to hope. When Titanic's fate was sealed, hoping that the ship, by some miracle, would nót sink, was utterly futile. It wasn't a useful thought. The ship wás going down, it was a 'mathematical certainty'. So, what choices did the passengers have? What about bravery, dignity, acceptance and resignation? Those are fine human qualities when a ship goes down.

So, what is the best weapon against climate change? I guess the question is wrong. It should be: 'What is the best weapon against inevitable extinction, as a result of overconsumption?' (*) The answer is: resilience (**).

Our ship is going down; it's a mathematical certainty. We've waited too long and now it's too late. The only thing we can do, is to become resilient. With bravery, dignity, acceptance and resignation.

(*) 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.

(**) *Resilience* [/rɪˈzɪliəns/ — noun] The capacity to withstand or to recover quickly from difficulties; toughness.

SM494 Letter to a hopeful citizen

Dear hopeful citizen,

You say that 'we mustn't lose hope' about our existential predicament and that 'there's still time to take action'. I agree. But you can say that about everything. When I write about our existential predicament, I always try to be extremely specific. When I use the Titanic metaphor (that our efforts to change our existential fate are like rearranging the deckchairs, or use the water pumps), I do that to make a specific point.

The atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have now entered a state of cascade failure, the prelude to suprasystemic collapse. This year, 2023, is the year we have passed the 'elbow' of the exponential curve. Weve waited too long, it's too late and it's out of our hands now.

And what do we do?

- We have the COP28 chaired by an oil sheik, for crying out loud!

- Fossil fuel conglomerates ramp up their efforts to squeeze the last bit of shareholders value out of their business model.

— We apply hugely expensive carbon capture technology that extracts a couple of million tons of CO2 per year, whilst we pump 150 million tons of CO2-equivalent into the atmosphere every dáy.

— The oceans are boiling of the charts whilst acidifying and deoxidizing, the jetstream is wobbling, the ocean currents are destabilizing and droughts, heatwaves, downpours and floods are increasing in frequency and intensity.

And thén what do we do?

- We plan to increase the emissions of CO2 of fossil fuels and industry from 37,5 gigaton in 2022 to 43 gigaton in 2050 (a gigaton is one billion ton).

— We fail to reach any kind of actual commitment on a global scale (read: to reach obligated, enforced and punishable targets) on any of the international conferences on environmental pollution, destruction of the biodiversity and climate change.

 We add 80 million people to the human equation yearly, all wanting to get rich, healthy, happy and grow old.

- We enable the rich to get richer whilst the poor get poorer to levels that are beyond contemptible.

It's simply unsustainable. Collapse is inevitable. We need to get more resilient sooner rather than later. And with 'getting resilient' I mean that we must stop creating the impression that we are solving our existential predicament bit by bit, because we're nót. Not by a long shot. Not on a global scale we aren't.

We must now:

- Retreat to our small social groups and be resilient, dignified and proud.

- Take care of ourselves and our loved ones.

 Batten down the hatches (or dig in) and enjoy our living environment whilst it's still there. - Remember that we fucked up a perfectly good deal here on Earth, the only planet we've got.

- Go down with our heads up high.

Because our ship is going down. 'It's a mathematical certainty' (quoting Titanic's chief engineer a few hours before he said 'within two hours, all of this will at the bottom of the Atlantic').

Stay strong, stay frosty, take care of yourself and your loved ones. With the utter most resilient regards, Bart Flos"

SM502 Why I write and fight

It was the end of August 2023 and I had written 500 posts about our shared future. Would it make a difference, do you think?

This was my post number 501:

"Yep, I couldn't resist it. As of two months prior to the publication of my sixth book titled *De mens als grens* — *Over de onbuigzame barrières van ons bestaan* or in English: 'Our Inner Limits — On the Unbending Barriers of Being') in December 2022, I wrote 500 posts and reposts, some compiled from the comments I provided on (re)posts from others. That's 500 posts of (on average) 400 words in an effective time frame of about 10 months, equates to 200,000 words in total, 20,000 words per month, 4,500 words per week, 650 words per day.

Ultimately, of course, it's not about quantity, but about quality, but I'd like to leave that judgment to the reader. Some repetition of the message is inevitable, precisely because the message is so frontally confrontational. Each post in itself is written for when you're short on time. A post of an average of 400 words (varying from 300 to 500 words) will only take you a few minutes to read and those who can no longer afford that kind of attention might as well be crawling under a rock.

Why so many posts? Why the "writing urge"?

Since I delivered the final manuscript of *De mens als grens* in October 2022 and stopped editing and supplementing (and since the publication date in December 2022), much of what I wrote about climate change has already been completely outdated. 2023 is the year we passed the "elbow" of the exponential curve. The atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have entered a state of cascade failure, the precursor to suprasystemic collapse. The jet stream is meandering, the oceans are overheating, acidifying and deoxidizing, and global ocean currents are destabilizing.

These are the global Management and Control Systems of our planet and there is no on/off switch, no reset button, no edit/undo function. It completely caught me off guard. What is happening in the world right now with the extreme weather and climate disasters is 'statistically impossible' and yet it is happening. It completely surprised me. What is happening in the world right now with the extreme weather and climate catastrophes is "statistically impossible" and yet here we are, it is happening.

And that's why I have decided to convert a representative subset of these 500 posts, both in Dutch and in English, into book form. I am going to publish those six books, each about 30,000 words, or the size of an average management book, as "*De mens als grens* (or Out Inner Limits) — Addendum I to VI." Not yet through a publisher, but (available to everyone free of charge) in PDF format. Each post then forms a subchapter that you can read in a few minutes, logically structured in a limited number of chapters. The PDFs will be written with the structure of a printable book, so you can have them printed and bound right away at a print shop if you prefer.

By now recording them in a PDF book, my posts will at least not be lost in the endless timelines of our social media. Because the internet links are active in a

PDF, the addenda also provide references to other posts, articles and scientific research. It gives you the opportunity to 'shop selectively' and only pick out those stories that particularly appeal to you. And again, each post only takes a few minutes of your time, which amounts to less than 0.5% of your available time in a day. Piece of cake.

I expect to release the four pdf-books by December 2023 at the latest. That is one year after the publication of *De mens als grens* and you will be surprised how much has changed in the space of just that one year.

Duly noted on August 26th, 2023."

SM515

Why we mustn't lose the bigger picture

I saw a post floating by reading the following:

"50 million cars in Germany need 62 billion liters of crude oil annually. Thus, Germany needs 8 large oil tankers each week. Every year. 50 million electric cars in Germany need 150 TWh electric energy annually. Just 1/3 of the fossil energy. The electric cars require 7,000 modern wind turbines and 50,000 ha of photovoltaic system. Installed once. Running for 20 years. The combustion vehicles emit 100 million tons of CO2 annually. The electric cars would emit just 3.5 million tons of CO2 in 2023. And declining."

This was my response:

"Just for the sake of argument I have extrapolated the data:

- 1,6 billion cars in the world need 2 trillion liters of crude oil annually. Thus, the world needs 256 large oil tankers each week or 13.000 tankers yearly.
- 1,6 billion electric cars in the world need 4.800 TWh electric energy annually. Just 1/3 of the fossil energy.

These electric cars require 224.000 modern wind turbines and 1.600.000
 ha of photovoltaic system. Installed once. Running for 20 years.

 All of the combustion vehicles in the world emit 3,2 gigaton tons of CO2 annually. The electric cars would emit just 112 million tons of CO2 in 2023. And declining.

Seriously folks, is this the best we can do? Replacing all combustion vehicles by electrical ones?

Let's see:

- CO2-emissions of fossil fuels and industry in Germany were 655 million metric tons in 2022.

- Worldwide CO2-emissions were 37,5 gigaton in 2022, that's 100 million tons a day.

- Europe's CO2 emissions were 2,4 gigaton in 2022.

If Germany reduced all of its CO2-emissions to zero, it would be 27% of Europe's emissions. But if Europe would reach zero emissions, it would only be 6% of global emissions. We mustn't lose the bigger picture here. One gigaton of CO2 is just a hell of a lot of CO2."

SM520

What we miss when we look through a microscope

I saw an article that began with the following:

"Sunscreen is killing the Oceans and our planets life support system.

The lowest concentration of oxybenzone that has been shown to damage corals is 62 parts per trillion (ppt). This is equivalent to a drop of water in six and a half Olympic-sized swimming pools. At this concentration, oxybenzone can cause coral bleaching, genetic damage, and death to coral and probably most marine organisms. Every time you use a sunscreen containing Oxybenzone, you are probably killing all marine life is a water volume equivalent to 10,000 cubic meters, or everything in an area 100m x 100m. The world produces 14,000 tons a year of Oxybenzone for sunscreens and other products [...]"

This was my response:

"With all due respect, sunscreen is nót killing the oceans. Sunscreen pollution sits way down low in the hierarchy of the existential problem analysis:

- At the lowest level we find specific details about, for instance, oxybenzone properties, micro- and nano plastics, PFAS macromolecules etc.

- One level above we find single but entire publications about, for instance, global sunscreen pollution, plastics pollution, PFAS pollution etc.

- One level higher we find all combined publications under the topics 'Environmental Pollution', 'Biodiversity Loss' and 'Climate Change'.

- And then, finally, we have reached the highest level, the overarching issue: overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat (*).

Environmental pollution, biodiversity loss and climate change are mere symptoms of overshoot. Everything else is a consequence or a (sub)(sub)symptom; it's distracting nitty gritty detailing. Overshoot is what's actually killing our oceans, our lands, our rivers, our mountains and our lives.

Talking about sunscreen pollution is like looking at the overarching issue with a telephoto lens or a microscope: it's classic symptoms fighting. There are a million 'problems' to solve at the lower levels, for sure, but we're completely missing the point here."

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

Chapter 3

About climate stupidity

3.1

SM414

Honest Government Ad | Net Zero

You must have seen it already in the endless timelines of the social media apps: the accompanying video message from 'the world government' is comically cynical, hilariously sarcastic and tear-jerking tragical all at once. If it wasn't such a serious existential subject you could laugh about it. Well, of course I can just share this video with you, along with some moralistic messages, but I've decided to do it differently this time around.

Let's do a thought experiment instead, shall we, where I ask you to imagine the thought process of four different people on four distinct levels.

Level 1

Let's say you're on unemployment or disability benefits, or you're single with children on benefits, you're in debt, struggling to make ends meet, limited in your options, and wrestling with everyday life.

Level 2

Suppose you are employed and you have a job, a partner, perhaps children, a house, car, flat screen TV, smartphone for everyone, you go on holiday a few times a year, have hobbies and pets, a mortgage debt and maybe even some additional outstanding loans.

Level 3

Suppose you have your own successful company, you grow like crazy, scale up, expand and take over, you have a large villa and a garage full of cars, two houses abroad, expensive watches, a partner with children and millions on the bank.

Level 4

Suppose you are a very wealthy owner of a multinational company from The Big X with hundreds of billions in turnover and billions in the bank (and on the Cayman Islands), hundreds of thousands of employees and enough capital to maintain castles, cars, yachts, private jets and mistresses, on several continents.

Close your eyes for a moment and imagine what it would be like to live and work at one of those four levels of prosperity. And then, one day, while you are playing with your smartphone, the accompanying video floats by and you stay with it until the end. What changes in your life afterwards, on each of these four levels? What are you going to do differently right after you have chuckled, or shook your head, or shrugged?

I mean, maybe you yell: 'Yes! Spot on! Definitely true. How well made. How wonderful to have it smacked right in the face like that!'

Or: 'What utter nonsense! Yet another left-wing radical pamphlet with panicmongering and dramatic posturing. It is climate hysteria, nothing more and nothing less.'

Or: "That is exactly what I have been saying for years to anyone who would listen: we are all going to die! Damned are we. No chance in hell! A suicidal kind we are!"

And then? Then what are you going to do? How will it affect the way you live and work?

Something to quietly think about for a while.

https://youtu.be/1FqXTCvDLeo [Honest Government Ad | Net Zero]

SM477

Just a tad of cynicism and sarcasm

Somebody got creative with semantics and wrote a post about what we need to do to fix our existential predicament with the environment, the biodiversity and the climate. But I doubt that his alliteration exercise actually would change anything at all.

This was my response:

"Ah. I see. Yes, nów I get it.

We've had 27 COP's and nothing has changed in terms of the growth of the world population, the rise of the GWP, the emissions of greenhouse gasses, the increase of the global average surface and ocean temperatures and the level of CO2, methane and water vapor in the atmosphere.

The 28th COP in November will now be chaired by an oil sheik (for crying out loud!), but that's perfectly fine, because nów we have a new established hopeful perspective: the 'Seven F's Comprehensive Energy Transformation Package':

- A
- Full
- Fast
- Fair
- Funded

- Fossil
- Fuel
- Phase Out!

Yeah, that's it! Now we've got it! Why didn't we think about this before? Semantics will do the trick, thát's the key. If we'd only known that thirty years ago, after the first COP, and we would have thought up this *FFFFFFF-ing* approach then, we would all be dandy right now.

We would have actively reduced the world population, the GWP and the emission of greenhouse gasses to levels that would simultaneously decrease the average global surface and ocean temperatures, the level of CO₂, methane and water vapor in the atmosphere, for sure! If only we had adopted this approach sooner, we wouldn't be in this crisis right now.

Damn, what a pity, what a waste of energy. If only we'd known..."

PS If you might have sensed a tad of cynicism, or even sarcasm, in these comments, then yes, you're right, it's there.

SM484

About inherent blindness and sheer stupidity

A saw a post linking to an article that correlated global warming with economic cost. Per degree Celsius of warming, it estimated the cost to the global economy, up until 7 degrees of warming. If you think that's perfectly fine, please think again. Because there is inherent blindness and sheer stupidity in this approach.

This was my response:

"I'm sorry and with all due respect: this is complete nonsense!

I understand that we're trying to correlate the GWP with global warming and that we're trying to predict how much money and prosperity we're going to 'lose' when the planet heats up, but come on, what are we thinking?

- At 2C of warming we'll be triggering multiple climate tipping points that will trigger other planetary boundaries that will in its turn initiate a runaway climate.

— At 3C of warming the runaway climate will enter the 'hothouse earth' stadium, with cascading failures across human society as a prelude to the suprasystemic collapse of human civilization.

- At 4C of warming we create hell on earth with mass migrations – hundreds of millions of climate refugees with crisis, conflict and wars in its wake – away from the coast and towards the poles.

- At 5C / 6C of warming, organic life on land and in the oceans can no longer be maintained.

It is completely ridiculous to use linear economic models to calculate possible economic effects of global warming when the rate of events is exponential. When our infrastructure comes crashing down on us, there ÍS no economy to talk about, because there will be no civilization left.

Let's not be naive about suprasystemic collapse.

SM499

The stupidity of replacing all 1,6 billion vehicles with EV's

I saw yet another enthusiastic post about 'the global rise of electric vehicles (EV's), suggesting that we're on track to 'electrify' the world, on our way to a green, clean society in which we all live in peace and harmony, enjoying a green, clean environment in our green, clean houses and our green, clean cars.

This was my response:

"If we keep approaching this problem from a neoliberal, capitalistic, consumeristic, growth-economic free market perspective, we will only be going from bad to worse. What is the intelligence (or should I say 'the stupidity') behind the current effort to replace all 1,6 billion vehicles on earth by electrical ones? It feels more like we're saving the automobile industry, rather than saving our living environment.

It baffles me to see that we actually don't realize that we need energy to make the energy transition and that that energy currently still needs to be provided by fossil fuels. 1,6 billion electric vehicles will require the same infrastructure that we have today and will create the same never ending congestion problems.

We don't seem to realize what we actually need to do to mitigate our overarching existential predicament, which is overshoot or overconsumption (*).

Allow me to articulate:

- 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 is no globally consorted, coordinated or consolidated effort that even comes close to this 'List of Seven'.

Don't you see?

(*) 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.

SM509

'Nè-nè-nèh-nè-nèèèh-nèh cán't héar yóu!'

Someone wrote a post with a dynamic graph that answered the question whether climate change is manmade. It compared greenhouse gas emissions and the observed average surface temperature since 1850 with the influence of sun output, volcanoes, aerosols, changes in land use and ozone pollution. Or in short: it compared human factors against natural factors, and guess what? It's manmade!

This was my response:

"Clear message. Good graph. Scientifically valid. Disconcerting.

If you show this to a climate change denier — one that says that 'the climate has always changed', or 'we are too insignificant to cause global warming', or 'in 1976 it was also very hot' — the only viable response left would be:

- 'Not all the data is in'

- 'The existing data is flawed'

- 'This is typically the kind of fake news that the left woke radicals come up with'

- 'Are you a left woke radical? Figures...'

- 'Look here! This tiny place on earth is cooler than average!'

The Big Problem: Overconsumption

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- 'Look there! There's an increase of polar ice coverage in the Upper-Mid-East-Antarctic!'

- 'It's all a big fat hoax from the Deep State and the Satanists!'

I find it baffling - no - I'm totally flabbergasted that there are still people among us that completely deny manmade climate change, with all the shit storms that are washing over the planet.

At some point in the (near) future I predict that even the most stubborn climate change denier won't be able to look or point at any place on earth anymore, that isn't influenced by environmental pollution, destruction of the biodiversity and climate change (*).

I guess he'll just cover his ears and yell 'nè-nè-nèh-nè-nèèèh-nèh— cán't héar yóu!"

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

Chapter 4

Science, truth and reality

4.1

SM416

Do some plotting and analyzing of your own

Here are some facts for you:

 In 1896, the Swedish scientist Svante Arrhenius (1859-1927) first observed that the burning of fossil fuels can amplify global warming.

- On August 17, 1967, someone somewhere in the US said, 'make love, not war'.

In 1985, astronomer, astrophysicist and cosmologist Carl Sagan warned the US Congress about the consequences of human-induced climate change.
On May 9, 1992, the first IPCC climate conference was held in Rio de Janeiro. Since then, there have been 27 international climate conferences.
In 2006, Al Gore released his book and documentary "An Inconvenient Truth." In 2017, he released the 'Inconvenient Sequal'. In January 2023, he was again angry about the climate at the World Economic Forum.

- On August 30, 2013, Thomas Piketty authored the book 'Capital in the 21st century'.

— In September 2014, Rutger Bregman published his book 'Gratis geld voor iedereen' ('Free money for everyone'). In January 2019, he told the superrich at the World Economic Forum that it was about time they paid their fair share of taxes.

- In the fall of 2018, Greta Thunberg organized her first climate demonstrations. During the climate conference in September 2019, she said 'How dare you?' In January 2023, she was arrested during the demonstrations at the lignite excavation near Lützerath in Germany.

- In December 2022, the 15th United Nations Conference of Parties (COP) on Biodiversity took place in Montreal.

- The 28th climate conference, which will take place in Dubai from 30 November 2023, will be chaired by Sultan Ahmed Al-Jaber, who is also chairman of the oil giant Abu Dhabi National Oil Company.

Now please search the internet for at any kind of graphical representation of:

- The increase of global greenhouse gas emissions over the past 100 years;
- The increase of global atmospheric greenhouse gas levels over the past 200 years;
- The rise of the global average surface temperature compared to preindustrial levels;
- The rise of the GWP, the Global World Product, the sum of all GDP's, over the past 50 years;
- The increase of the world population over the past 200 years.

Please plot all the events above in the timeline of any of these graphs. Place arrows on the curve that correspond to the above dates and years and add a

brief description of those events. Now look at those pictures as a whole and let it sink in for a moment. Please answer the following two questions:

1. What conclusions do you draw from all this?

2. What's the next thing you're going to do after reaching those conclusions?

Thank you.

SM418 The burden of science

It keeps popping in the endless timelines of our social media apps and news outlets: climate change denial. It is as persistent and vicious as it is devilish. Climate change deniers say it is a lie, a falsehood, a hoax and a 'leftist hobby'. It is virtually impossible to have a debate with them. It's like talking to a stuck gramophone. Be that as it may, it is important to note that climate change deniers have a far easier task than climate scientists, because the only thing they have to do is to sow doubt.

Climate change deniers don't have to prove their own claims. And they don't have to explain why they think climate scientists are wrong. The only thing they have to do is to say, 'we're not certain yet' or 'the models are flawed' or 'not all the data is in yet' or 'scientists don't know everything' and 'science has been wrong on the past'. That is the burden of science.

And I must say, climate change deniers are truly devious at that task, because they...:

- ...use exactly the same dataset the climate scientists use, but they cherry pick their way through it.
- ...emphasize one bit and omit another, use pseudo-scientific language to make it appear truthful, alter the scale of graphs and apply tube vision to refute scientific consensus.

- ...will keep on throwing bogus internet links at you until you're blue in the face. These links contain obscure research that, at first glance, looks renowned but is in fact total rubbish.

But the brilliance of sowing doubt is that it always seems to fall on fruitful ground. It grows like bad weed and overruns the truth before you can say 'now wait just a minute here!'

- The tobacco industry has successfully cast doubt on the causal relationship between smoking and lung cancer for decades.
- The pharmaceutical industry has spent decades effectively casting doubt on the causal relationship between opioids and addiction, disease and death.
- The fossil fuel industry has spent decades sowing profound doubts about the causal relationship between greenhouse gas emissions and the climate.

What do we do when we are in doubt? We take distance from the matter and retreat to our small social groups of family, household, friends, colleagues and teammates. Because that's where we feel familiar, safe and secure. As a result, everything stays exactly the same. Once the doubt is sown nobody cares about nuance or truth anymore. The damage is done and the lies linger on. It's quite disconcerting really.

Wanna learn more?

About climate change: https://en.m.wikipedia.org/wiki/Climate_change

About conspiracy theories:

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

About climate change denial:

https://en.m.wikipedia.org/wiki/Climate change denial

SM433

Why the *World Economic Forum* is not going to help us

I saw a professor doing a presentation at the *World Economic Forum* (WEF) in Davos in January of 2023 about how global warming is not bound by any barrier and affects us all.

Relevant story. But who is he talking to here? A waving woke crowd at the WEF? Will the super-rich now bow their heads in shame, dismantle their multinationals and withdraw all of their capital from the Cayman Islands to give to the poor?

We know this already! We already know for more than half a century that the excessive emission of greenhouse gasses warms up the atmosphere and disrupts the climate. We've had 27 climate conferences, produced thousands of climate studies by hundreds of climate scientists. Each report is more dire than the previous one.

This professor is actually talking about the consequences of overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat. That process has not just started, it's been going on for more than half a century and currently in its accelerating phase. But that doesn't matter.

We have produced countless books, reports, articles, blogs, vlogs and TED(x)talks, done 'a million' presentations, workshops, conferences and summits on the matter. None of these works, none I tell you, has had any durable influence on the inclination curve of the emissions of greenhouse gasses.

Do you want some more frontal confrontations with reality?

- CO2-emissions of fossil fuels and industry were 37,5 gigatons in 2022 (a gigaton is one billion tons), the highest ever recorded, rising to 43 gigatons in 2050.

- CO2-level in the atmosphere is currently 420 ppm (parts per million), rising to 500 ppm in 2050.

— We burn 100 million barrels of oil, 22 million metric tons of coal and 11 billion cubic meters of natural gas each day. These numbers are going up, not down.

— The average surface temperature is 1,2 degrees C above preindustrial levels. We might see the 1,5 degrees C barrier broken within the next decade or so.

If you put a marker on the curve of greenhouse gas emissions for all of the climate books, reports and conferences of the past century, there's no impact. None. What does that tell you? The presentations about our existential predicament are getting more and more fancy. Big vibrating depictions of the earths land and oceans, arrows, moving currents and connected dots. But the question should be: what are we going to do right after the show?

Here's a frontal confrontation for you. This is what needs to happen if we want to mitigate the consequences of 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 dó something about overshoot.

Who's first in line to volunteer?

SM439

On nuclear energy: the world is nót black and white

A saw a number of posts in my timeline that argued both the pros and cons of nuclear energy, firing up fanatics on both sides. Please allow me to provide some scientific perspective to add nuance to this highly polarized debate, because as much as we might hate it: the world isn't black and white.

— 'Three reasons why nuclear is clean and sustainable': <u>https://www.energy.gov/ne/articles/3-reasons-why-nuclear-clean-and-sustainable</u>

- 'Advantages and disadvantages of nuclear energy': <u>https://earth.org/the-advantages-and-disadvantages-of-nuclear-energy/</u>

— 'Reasons why nuclear energy is not the way to a green and peaceful earth': <u>https://www.greenpeace.org/international/story/52758/reasons-why-nuclear-energy-not-way-green-and-peaceful-world/</u>

— 'Why nuclear power must be part of the energy solution': <u>https://e360.yale.edu/features/why-nuclear-power-must-be-part-of-the-energy-solution-environmentalists-climate</u>

- 'Nuclear energy: the good, the bad and the debatable':

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https://www.niehs.nih.gov/health/assets/docs f o/nuclear energy the go od the bad and the debatable 508.pdf

– 'Pros and cons of nuclear energy': <u>https://www.conserve-energy-future.com/pros-and-cons-of-nuclear-energy.php</u>

– 'Nuclear power: the pros and cons': <u>https://www.power-technology.com/features/nuclear-power-pros-cons/</u>

— 'What are the pros and cons of nuclear energy': <u>https://letstalkscience.ca/educational-resources/stem-in-context/what-are-pros-and-cons-nuclear-energy</u>

- 'Nuclear energy and the environment':

https://www.greengeeks.com/blog/nuclear-energy-and-environment/

- 'Nuclear energy: good or bad':

https://ourfuture.energy/debate/nuclear-energy-good-or-bad/

— 'What are the advantages of nuclear energy': <u>https://www.edfenergy.com/energywise/what-are-advantages-nuclear-energy</u>

— 'Benefits of nuclear energy for the environment': <u>https://encoreuranium.com/benefits-of-nuclear/benefits-of-nuclear-energy-for-the-environment/</u>

- 'The good and the bad of nuclear power': <u>https://www.thomasnet.com/insights/the-good-and-bad-of-nuclear-power/</u>

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– 'Pros and cons of nuclear energy':

https://kiwienergy.us/pros-and-cons-of-nuclear-energy/

– 'What's wrong with nuclear power': <u>https://wiseinternational.org/nuclear-energy/whats-wrong-nuclear-power</u>

– 'Nuclear energy: good or bad': <u>https://pennyelectric.com/blog/nuclear-energy-good-or-bad/</u>

– 'Pros and cons of nuclear energy: safety, cost and efficiency': <u>https://justenergy.com/blog/pros-and-cons-of-nuclear-energy-safety-cost-efficiency/</u>

— 'Reconsidering the risks of nuclear power': <u>https://sitn.hms.harvard.edu/flash/2016/reconsidering-risks-nuclear-power/</u>

Now I know, nobody is going to read all this. But it took me just a couple of minutes on Google to find enough information that nuances the black and white statements about nuclear energy.

It just reflects a polarized society:

- 'If you're not with me, you're against me'
- 'You're either a Republican ór you're a Democrat'
- 'Somebody is either left or right'
- If it's not this, it must be that'
- 'There's only two solutions to this problem'
- 'You're wrong and I'm right'

Most of the time the truth lies somewhere in between. But that's more difficult to grasp, it takes more time to study, it doesn't satisfy our need for simplicity that much. Having said that, I most also point out that sometimes the truth, the reality or the facts do nót lie smack in the middle. Sometimes somebody is 100% right and the other 100% wrong.

We don't always have to seek the middle ground. But we must a least give it a try.

SM443 About creating the right mass and momentum

I watched a video of a sociology professor claiming that we just need to create 'the right mass and momentum' in order to fix our existential predicament with the environment, biodiversity and climate. Once we've done that everything will be dandy.

This was my response:

"This professor seems to want to whisper to us "that it's not too late," that "we can still do something if we only start now" (my paraphrasing). At the end, she talks about the "critical mass" needed to initiate the necessary transition: 25% of the world's population, two billion people. Once we get those together, the transition becomes "self-reinforcing" and "it will move in the right direction," she says (again my paraphrasing).

What I am most fascinated by is her use of the personal pronoun 'we'. She talks about "we" all the time and that's an effective way to turn a problem into a shared responsibility. I do that too. But she never explains who 'we' are. Because 'we' are the human civilization, all eight billion individual copies of the species Homo sapiens put together.

We are spread over two hundred large societies (countries and nations), each of which has its own political, cultural, economic and ideological agenda. Every large society (country, nation) is divided into countless small societies (village, city, province) which in turn are divided into large groups (organizations, companies, multinationals) and small groups (family, household, friends, colleagues, teammates), all consisting of human individuals.

Every small social group is headed by an individual. Every large group, every society and every country is led by an individual and associated small group. The key word here is 'the individual'. Everything revolves around that individual specimen of the species Homo sapiens. Because as a human species, while we are good at international cooperation, we are also fundamentally single-minded, short-sighted and selfish. That's the nature of the beast.

When this professor talks about "we," she doesn't actually mean the human species in its entirety. Because that is an abstract entity. She is talking about a vast collection of small social groups headed by an individual. Most of those small groups are just a small cog in the suprasystem. Only a few individuals with their small groups at the top of the human hierarchy determine the status quo of human civilization.

The two billion people needed to reach Herrington's ecological tipping point consist of a few hundred million (!) small groups that, like the two hundred countries of the world, have their own agenda. Each individual looks first at his own interest: what do I have, how can I keep it and how can I get more?

Evolution and natural selection are what drives us. Only when we understand that, can we tackle the real cause of our existential conundrum that is

overshoot or overconsumption: when a population exceeds the carrying capacity of its habitat (see Appendix IV)."

SM444

How to use facts and evidence to score triple points

There are countless of scientific representations of the state of manmade climate change. The increasing global emissions of greenhouse gases, the growing global atmospheric CO2-level, the rising of the global average surface temperature, etcetera. They are represented on various time scales: tens of years, hundreds of years, thousands of years, etcetera.

Since the industrial revolution began some 200 years ago, all these variables have been going up and up. It doesn't matter how you look at it, the values are not going down, but in fact seem to be accelerating even, looking at their rate of ascent. Now let me provide you with a tip on how to use these kinds of graphs to spread the message that we, the human species, réally dó have one hell of an existential conundrum.

First let's divide our 'audience' into three categories:

- 1. Climate change deniers
- 2. Climate change doubters
- 3. Climate change adaptors

- Category 1 | Climate change deniers

They claim that manmade climate change just doesn't exist, that the human species is 'just too small' to have such an impact and that 'it's the sun', or 'Earth's revolution around the sun', or 'it's the sun spots', or 'it's a leftist woke hobby' and that 'the climate has always been changing', and that '0,04% of CO2 in the air is so very little', and that 'it was also very hot in 1976'. But there are also pseudo-scientists that distort, cherry-pick and mutilate the scientific facts and evidence to mislead, distract and sow doubt as part of their strategy.

- Category 2 | Climate change doubters

They hover up and down between categories 1 and 3. They are not necessarily 'against' the concept of manmade climate change, but they just can't make their minds up about the exact influence of human beings on the climate, what it all means and where it is all going to lead. They are being torn between the substantiative arguments of both opposite sides, especially between the pseudo-scientists and scientists.

- Category 3 | Climate change adaptors

They adhere to the science, the scientific method and the scientific community as it pertains to all matters concerning the environment, the biodiversity and the climate. They follow the evidence and the facts wherever they lead. Climate change is manmade and the facts and figures are undisputed: if we keep this up our whole living environment is under threat of deterioration and destruction, with the human species along with it.

Now we're going to have a debate with each category, as follows:

- Category 1 | Climate change deniers

Don't just forward or show the graph to them. First ask: 'Do you acknowledge science, the scientific method and the scientific community?' In other words:

'Do you trust that the worldwide measurements of average global surface temperatures are accurate?' If the answer is 'no', quit your dialogue and walk away. Any further attempt to debate manmade climate change is pointless. If the answer is 'yes' or 'maybe' it is must probably meant to be misleading or deceiving.

- Category 2 | Climate change doubters

Ask the same question. It is more probable that the answer is 'yes'. Show the graph. Now ask the following questions: 'What conclusions do you draw from this graph?' and 'What do you see when you extrapolate it?'

Now you can start debating a mitigation strategy.

- Category 3 | Climate change adaptors

Show the graph. Debate mitigation strategy. Snap to it.

Don't waste your energy on climate change deniers. Trust the science, the scientific method and the scientific community. Science is far from dogmatic, it is not omnipotent, omniscience or omnipresent, nor is it infallible. Science is done by people and *people are fallible*.

But the scientific method is based on a unique principle: progressive insight. It never stops being curious, being inquisitive, being critical of dogma and skeptical of absolute truths. It is the best thing we have to arrive at a workable model of observable reality (see also Appendix III).

SM445 Going from the what to the why

A proper problem analysis is a tricky thing, whether it pertains to relatively small fields of expertise, such as project management, or the largest field of expertise there is, the future of mankind. It's a tricky thing, because we, more often than we'd like to admit, seem to get stuck at the beginning.

We ask a lot of 'what-questions', which in and of itself is not bad, but they don't lead to the core of the problem. And we must uncover the core of a problem to avoid symptoms fighting. That's where the 'why-question' kicks into action.

Without the why, the what is incomplete. What-questions are fine but must always be followed or proceeded by why-questions. Why-questions are the better start of an analysis, what-questions are complementary.

If you want to do a proper problem analysis, use the Problem Analysis Checklist or PAC:

- 1. What's the problem?
- 2. What causes it?
- 3. What are the consequences?
- 4. What needs to be done?
- 5. Who needs to do it?
- 6. When does it have to be ready?
- 7. What do we do to avoid reoccurrence?

Please note that there's no why-question in this list. That's right. The PAC as a whole, in and of itself, as a method of problem analysis, is the ultimate why-question:

- Why did this problem occur in the first place?

Completing the PAC will lead to the core of the problem.

Wanna learn more?

www.hetperfecteproject.nl

'The perfect project – Why People Are the Key to Success'

SM455 The brilliant strategy of climate change deniers

When I see a post, article or video from a climate change denier, or from a pseudo-scientific institution that categorically denies that the current rate in which the climate changes has anything to do with us human beings, I have a tendency to grin. Not because I find the topic to be funny or trivial. On the contrary. I write a great deal about climate change, being a symptom of overshoot. But that's not my point here.

I grin, because I recognize what climate change deniers do, each time they plant this little seed of doubt into our collective minds. It's a brilliant strategy really.

 Climate change deniers don't have to prove their point, substantiate their hypothesis or falsify their claims.

 Climate change deniers don't have to argue in 'science court' why they believe manmade climate change is a myth.

They only have to sow doubt.

Environmental pollution, destruction of the biodiversity and climate change — these are all symptoms of overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat. Overshoot is vastly complex! It

contains millions of specific details that determine the overall outcome. A climate change denier only has to critique óne little detail, or find óne tiny mistake, enlarge it and multiply it.

'Look! The thermometers are faulty!'

What do we do when we're in doubt? We retreat, we give up. We go back to our daily business.

Climate change deniers lóve it when the countless bogus claims they make are scrutinized by scientists and bombarded with móre details, móre facts.
Climate change deniers are having a field day when they see the comment sections fill with frustration, outrage and confusion.

Thousands of climate scientists in every possible field of expertise must do their utmost to adhere to the scientific method, being accountable to the scientific community, allowing peer review, falsifying their findings relentlessly before publishing the results. A climate change denier only has to pick a detail, shout something stupid about it, sit back and relax.

Isn't it amazing that despite the extreme weather and the climate disasters roaming the planet, that it is still possible to sow doubt about global warming? Well, if you understand the way our brain works it's not that amazing at all. Because we might see disaster striking, but then we say it won't happen to us. If it happens to us, we'll say it won't happen to us again. If it happens to us again, we think it's just a stroke of bad luck.

We can't process vastly complex subjects for a prolonged period of time. And we can't worry about upcoming doom if it doesn't hit us straight in the face. As

long as we allow climate change deniers to sow their little seeds of doubt and grin about it, as long as we retreat in confusion, ignorance and indifference, our existential predicament will only worsen until that point of no return, when climate tipping points have rendered it impossible to act.

When do yóu think that'll be?

SM463

The great delusion: Carbon Capture and Storage

I saw hopeful news in my timeline: the USA was going to invest billions in DAC, Direct Air Capture (of CO₂), also referred to as CCS, Carbon Capture and Storage (although the latter might be considered to be a ore generic approach to carbon capture) by building DAC hubs, huge facilities that remove CO₂ directly of the atmosphere to be restored elsewhere.

This was my response:

"Ok, let's, just for the fun of it, do the math here. Let's assume that there will be, at some point, 4 DAC hubs each removing 1 million metric tons of CO2 yearly. That's 4 million tons of CO2 removal in total. Let's also assume that by the time all 4 hubs are operational, the cost will have come down to \$ 100 per metric ton of CO2.

Current CO2-emissions of the USA are 5,1 gigaton per year (a gigaton is one billion ton). At a rate of 4 million tons a year it would take the USA 1.275 years to remove only one year of CO2-emissions. If they wanted to remove all of the yearly emissions, they would have to build 5.100 DAC hubs, spanning a surface of 816.000 square miles (22% of USA total surface), requiring 12,7 million employees to run it (4% of the current population). The total cost, apart from building all these sites and running them effectively, would amount to 510 billion dollars per year or 2,2% of the USA's GDP.

And that's only to keep up with the yearly emissions. Am I the only one doing these calculations? But wait, there's more!

Because what about the accumulative emissions? Surely every country in the world must pay its fair share of emissions, including the past, wouldn't you agree? Cumulative CO2-emissions of the USA are 400 gigaton. Wanna do the math?

SM467

Science notes and news of August 2023

I found an intriguing news message somewhere in the endless timelines of my social media and news outlets (*). It read as follows:

"August 14, 2023

SCIENCE NOTES and NEWS

Overconsumption effecting environment, biodiversity and climate (**).

The 200 countries of the world have added 37.500.000.000 tons of carbon dioxide of fossil fuels and heavy industry to the atmosphere in 2022. The atmospheric CO2-level is now at 420 ppm, up from 280 ppm in the preindustrial era.

For 800.000 years this level has gone up and down between roughly 200 and 300 ppm. Within 200 years humankind has increased the level by 50%. As predicted 111 years ago, the effects have become considerable in the last century and is now out of control. The atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have entered a state of cascade failure, the prelude to suprasystemic collapse.

However, based on the economic planning of all 200 countries in the world, the CO2-emissions of fossil fuels and heavy industry will rise to 43 gigaton in 2050. Likewise, the atmospheric CO2-levels will rise to 500 ppm in 2050.

In 1912 the world population was at about 1,6 billion people. Currently we're at 8 billion, growing to 10 billion in 2050. All of these people will want to get rich, healthy, happy and grow old. Nobody wants do decline or reduce. Everybody wants to at least keep what they've got, preferably get a little bit more. It's simply unsustainable.

Planet Earth says: 'enough is enough!' Suprasystemic collapse is coming"

(*) Or did I write it myself? Perhaps.

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

SM475

Why refrigerators aren't our main concern

Someone wrote a post claiming that 'refrigerators are the big problem we need to concentrate on. Refrigerators! I must say, the author was passionate about the subject (probably a cryogenic engineer or a refrigerator salesman – if the only thing you have is a hammer, everything looks like a nail) and he might have exaggerated a tad.

This was my response:

"There must be a fundamental error in the savings calculations here. Current global emissions of fossil fuels and heavy industry are 37,5 gigaton yearly, equal to 54 gigaton of CO2-equivalent. However, refrigerators are NOT responsible for 66 to 200% of global CO2-e-emissions. Can somebody please shed a light on this and come up with a more realistic calculation?

Thanks.

Be that as it may, the impression this post creates is incorrect, in the sense of isolating one particular aspect of the human behavior. Refrigerators are not the problem. CO2-emissions from fossil fuels and heavy industry are not the problem, nor are methane emissions. Environmental pollution, destruction of the biodiversity and climate change are not the problem either. They are all symptoms of the overarching issue: overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat.

Isolating one particular aspect (read: symptom or consequence) of overshoot creates a false sense of hope.

- 'If we only change the way we use refrigerators, we're going to be fine'.
- 'If we address industrial methane leakage, we're going to fix this'.
- 'If we just replace all 1,6 billion vehicles on earth by electrical ones, everything will be alright'.

With all this symptoms fighting - lots of which is done on paper, in theory, and none of it scales up to a consorted, coordinated and consolidated global action plan - we're losing sight of the ball. The atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have entered a state of cascade failure, the prelude to suprasystemic collapse.

We'd better be ready for it and get resilient fast.

SM479

Why tropical forests cannot regenerate naturally (anymore)

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

"Tropical forests can regenerate naturally in just twenty years".

This was my response:

"Yes, they can!

In an atmosphere with a CO2-level between 200 and 300 ppm. For the past 800.000 years the CO2-level has gone up and down between these two levels, roughly divided into eight cycles of 100.000 years with colder and warmer periods. Current CO2-level is at 420 ppm, rising to 500 ppm in 2050.

Yes, they can!

On a planet with an average surface temperature between +10C and +15C. During the same past 800.000 years the global average surface temperature roughly varied between these two values. Without CO2 the average global surface temperature would be -18C. With the right amount (for us) it varies between +10 and +15C.

Current global average surface temperature is at 16,2C or 1,2C of warming, rising to 17C to 18c in 2050, or 2C to 3C of warming, compared to preindustrial levels. At 19C (4C of warming) we create hell on earth and at 20C to 21C (5C to 6C of warming) organic life on land and in the oceans can no longer be maintained.

Tropical forests will not be able to regenerate at all if we keep cutting them down, drying them out to tinder and burning them down to a crisp. Any attempt to preserve the tropical forests whilst pumping copious amounts of greenhouse gasses into the atmosphere will be utterly futile."

SM491

Small potatoes just won't cut it, folks

A read a post that somewhere in the world, some organization, or industrial production facility or green initiative, achieved 'enormous' reduction in oil consumption. '726 míllion barrels of oil less to pollute the environment!', it shouted out loud. In the comments you could see amazement. 'Wow! More than 700 míllion barrels? That's a lot!'

This was my response:

"Good development. Excellent initiative. Every step counts. Right? Well...

To prevent us from crying victory, claiming this is 'the beginning of the end of the fossil fuel industry': 726 million barrels of oil is about one week's worth of global oil consumption (about 2%). That's right!

- We burn 100 million barrels of oil daily, along with 22 million metric tons of coal and 11 billion cubic meters of natural gas.

- We produce, also daily, 190.000 non-electrical vehicles, 1 million metric tons of plastic, 5,5 million tons of waste and 11 million tons of cement.

- Consumer fossil fuels subsidies were up to \$967 billion in 2022, global subsidies up to \$7 trillion.

- Global CO2-emissions of fossil fuels and heavy industry were 37,5 gigaton in 2022, an all-time high, rising to 43 gigaton in 2050.

- Every day we add 150 million tons of CO2-equivalent to the atmosphere. The CO2-level is at 420 ppm, rising to 500 ppm in 2050 (preindustrial levels were at 280 ppm).

It is understandable that we celebrate small victories, enlarge and amplify them. But that doesn't make them big potatoes. The only thing that counts is the *global decrease* of greenhouse gas emissions, atmospheric CO2-levels, average surface temperature, GWP (Global World Product, the sum of all GDP's) and global world population.

Small potatoes just won't cut it, folks. If it's not global, it's futile.

Ticktack, ticktack, ticktack...

SM506 A gigaton of CO2 is brutal

I saw a post about Norway's new floating wind farm and how it will 'significantly reduce Norway's annual emissions'.

This was my response:

"I think this is great. And we should be glad that investments in solar and wind energy are picking up. But we also mustn't loose perspective. Especially when absolute numbers are used to emphasize the 'great wonder' of wind energy. This wind farm will, apparently, reduce Norway's annual emissions 'by about 200.000 tons of CO2'.

Ok.

Norway emitted 32 million metric tons of CO2 in 2022, down from 43 million tons in 2016. This wind farm will therefor save 0,6% of Norway's yearly emissions. Global CO2-emissions of fossil fuels and industry reached 37,5 gigaton in 2022, an all-time high. This wind farm reduces 0,0005% (five-ten-thousands of a percent) of global CO2-emissions.

If Norway wanted to offset its CO2-emissions entirely by means of wind energy, it would need 160 of these wind farms. To offset global emissions, we would need 187.500 of them around the globe.

Look, I knów that we're not depending on wind energy alone to reach net zero emissions. I'm just pointing out that we don't seem to understand the sheer size of our emissions problem. The best CCS-plants and DAC-hubs available to date are multi-billion-dollar installations that remove a couple of million tons of CO2 per year. But globally we emit 100 million tons of CO2 per day!

I'm just saying. A gigaton of CO2 is just huge, it's vast, it's brutal."

SM507

Science is not a religion

I read a post in which science is accused of being omniscient, all-knowing, that it somehow claims that all matters are 'solved' and that we know everything there is to know about everything, including the meaning of life and the origins of existence.

The last paragraph of this post read:

'The article closes with a quote from Philip Anderson (1923-2020). When the author interviewed him in 1994, Anderson mocked the idea of scientific omniscience. "You never understand everything," Anderson said. "When one understands everything, one has gone crazy.'

This was my response:

"I fully concur with the last paragraph of this post. But I strongly protest the tone of voice in general. In order of appearance:

1 – Science being able to explain everything was never a 'belief'.

No real scientist will ever boast to have solved the riddle of existence, or even attempt to do so. A scientist is agnostic to the very core, presumes nothing, keeps an open mind to everything, asks questions, investigates, finds evidence. 2 — British physicist, cosmologist and mathematician Stephan Hawking never meant that science would or could become omniscient.

Hawking was just hopeful and simply extrapolated on current findings. He was only human and perhaps guilty of wishful thinking, but no more than that.

3 —British ethologist, evolutionary biologist and popular science author Richard Dawkins never said that the entire body of science was 'solved'. He just meant that the science of evolution through natural selection was pretty well understood and 'solved'. Dawkins was well aware of the 'undiscovered country' of science: the origin of life, consciousness, dark matter and energy, etc.

I find it an insult to science, the scientific method and the scientific community to suggest that science is in any way, shape or form a belief system with omniscient, omnipotent or omnipresent properties. Only an arrogant, ignorant, big shot pseudo-scientist would make such a claim."

Wanna learn more about science? See Appendix III.

SM508

Do some extrapolating of your own, why don't ya?

Suppose you would encounter a graph that depicts the rising average global surface temperature since the beginning of the industrial revolution, all the way up to last year. There's lots of them going around and they all seem to say the same thing. But what about me not telling you what they say, but let you discover that for yourself?

Then I would urge you to not just watch the graph and go on with your life, but instead download the graph and print it out. What kind of line would you draw if you were asked 'how would you extrapolate this graphic?'

What would happen if you were to draw a line, linearly or accelerated, representing the 'moving average total' in increments of, say, ten years, from now to 2050, or even 2100. What would you see? Where would it go, you think? Say, we dón't change our collective behavior as a species (read: keep pumping greenhouse gasses into the atmosphere), where do you think this is headed?

And if your extrapolation curve crosses the barrier of 1,5C warming in 2030 and so on, like so:

- 2040: 1,8C - 2050: 2,2C

- 2060: 2,7C
- 2070: 3,2C
- 2080: 3,8C
- 2090: 4,3C
- 2100: 5,1C

[Source: 'De mens als grens' ('Our Inner Limits'), Chapter 8, Page 283]

...what would you then conclude, knowing that:

- 2C of warming triggers climate tipping points that trigger planetary boundaries.

-3C of warming starts a runaway climate creating a 'hothouse earth.'

-4C of warming creates true hell on earth.

-5C of warming is the extinction threshold.

-6C of warming renders organic life on land and in the oceans unsustainable.

Be the climate scientist for a moment: what would you say?

SM512

How (not) to engage a climate change denier

I saw a post with the header '*How to engage a rational, reasonable, openminded climate change denier in debate.*' Well, that sounded interesting.

This was my response:

"Thanks for your post. If find the header a tad too optimistic, but I like the counter arguments. Let's say, it's a good start. I'd like to make a suggestion though. Because this is not how the real polarized world works. Let's split our effort in two, with the following (adjusted) headers:

1 — 'How to engage a rational, reasonable, open-minded climate change denier (*) in debate.'

2 — 'How to engage an irrational, unreasonable, closed-minded climate change denier in debate.'

The first one is yours. You've done the work already and I concur. Let's call that a Type 1 Debate. Now please allow me to paint you a picture of the reality of engaging the second one. Let's call that a Type 2 Debate. Here's how that goes:

Imagine you start your response to the false claims of the climate change denier or 'CCD'. Now let's see how that will go:

Type 2 debate

- *You*: 'The earth's climate is rapidly warming. The cause is a thickening layer...'
- The CCD: 'Wow, wow! Hold your horses, buddy. Stop right there!
 What kind of nonsense is thát, for cryin' out loud. You can stop the bullshit right there!'
- *You:* 'If I may finish, please? The cause is a thickening layer of carbon dioxide enhanced by...'
- The CCD: 'Do you see? That is exactly what I hate so much about you bloody climate people. You just keep interrupting and blabber-mouthing. Now you listen to mé! There's nothing wrong with CO2, it's good for plant life and there's only 0,04% of it in the air!'
- *You:* 'Well, actually, the current atmospheric CO2 level is 420 ppm, whereas the preindustrial level was about 280 ppm, so that implies that...'
- *The CCD:* 'Ppm? Ppm?!? Em Aay Es Es Aay Pee Pee Aay Es Es Aay. What are you taking about, man?'
- *You:* 'Well, if you let me finish, I might be able to explain to you what I mean with ppm and...'
- *The CCD:* 'Did you know that it's all rubbish, climate change? The ice in the Upper-East-Mid-Antarctic is growing like crazy, the ice bears and penguins are thriving and there are already signs that Europe will enter an ice age soon'.
- *You:* 'Well, yes, but that's because of the AMOC, the Atlantic Meridional Overturning Circulation that might collapse as a result of the...'
- *The CCD:* 'AMOC? I'll give you some AMOC right now! You bloody radical lefties with your doomsday woke nonsense are only trying to scare the bejesus out of everybody, so you can enforce your Deep State agenda en

make us all bloody communists. I'm done with this shit. Do you know what you can do with your climate bullocks?!'

- You: 'I'm beginning to get a pretty good idea'.

You'd better be prepared to counter debate a real climate change denier. They are tried and tested, dominant, verbally aggressive and eager to berry you under such a load of pseudo-scientific crap that your head will spin before the debate is over.

(*) Let's call it 'climate change denier' or 'denier of manmade climate change', and not 'climate denier'. Because that will get you in trouble right from the start: The CCD will say: 'But I'm not denying the climate! There's always been a climate and there's always going to be climate change. I'm denying the...'

Ad infinitum.

Chapter 5 The Almighty Algorithm

5.1

SM420

The pitcher plant we fell into

I'm currently seeing countless posts about AI as ChatGPT and I regularly scroll through the comments. Every time it sends shivers down my spine. Don't you see? The genie is out of the bottle! And he laughs out loud at our squirming, posturing and protesting, howling with delight at our naive initial feelings and thoughts. We humans have a hunter-gatherer brain, the operational software of a social group mammal.

Our DNA and brain have been evolved by evolution and natural selection over hundreds of millions of years with only one goal in mind: to survive and reproduce. This programming is perfectly suited to evolve in changing environments. We have become so good at it that we completely dominate our planet. But we have not evolved with ICT technology in mind. For our brains, that's just another tool.

AI is a trap! It is a pitfall, a pitcher plant. We are só screwed. AI is developing at an exponential rate and our brain is completely unsuitable to understand exponential progression. AI does not need millions of years to develop, but only a few days, weeks, months. Our shortsighted and childish bickering about whether it's 'good' or 'bad' will be obsolete before the year is out.

Machine learning software like ChatGPT will become so good at mimicking human communication that it will eventually destroy one of the most unique qualities of the human species: creativity. Every mistake ChatGPT makes, every correction we return to the AI out of the kindness of our hearts will be eagerly embraced.

"I'll remember that now" (*).

Every imperfection of human nature will be completely ironed out until we can rely on the AI one hundred percent. Any text published after that will be imbued with the idiosyncratic properties of human communication. With deliberate small imperfections, charming mistakes and heartwarming human properties. Simply by listening very carefully to us and adding a new layer on top of the next each time.

We have fallen into the calyx of a pitcher plant and fail to understand that the fluid that surrounds us is not meant to protect or nourish us. And as we try to crawl up the slick walls, back to the light, and keep falling back, it's not the empty laughter of the victor that echoes from outside, but the cold silence of pure indifference.

And that scares the bejesus out of me.

(*) Marjorie Prime is a 2017 American science-fiction film [about advanced holographic AI] written and directed by Michael Almereyda, based on the Jordan Harrison play of the same name.

https://en.m.wikipedia.org/wiki/Marjorie Prime (Wikipedia)

<u>https://youtu.be/Fu918Y47CfQ</u> (YouTube – Trailer)

SM426

Why we shouldn't adore the Almighty Algorithm

Someone asked ChatGPT about what it thought the, and I quote, 'inner human dimension of climate action' was and reproduced the answer in a post. The author was apparently in awe about the profound wisdom of this algorithm and kept on bragging about its 'endless wisdom' and 'limitless possibilities', like it was some kind of omnipotent, omniscient and omnipresent entity, replacing all entities of the same kind, the *Almighty Algorithm*.

This was my response:

"I'm sorry, but I can't for the life of me understand why we're so impressed by this. It's a word salad! A nicely articulated stack of platitudes. This is complete and utter bullshit! The only thing the ChatGPT does is dig through yottabytes of written text and look up what millions of actual people have said or written about any subject and rearrange it.

Yes, it spews it out in just a few seconds and it's sounds good. And yes, an actual human being could have written it. But, please, read it again. It's like a boring politician quoting quoting climate policy. It's just a lot of bla-bla-bla and it only kicks in doors that were already open.

And moreover, it doesn't contain óne single original idea. It doesn't provoke any creative thought. It just mumbles and jumbles on and on about stuff we already knów. What's the added value in this? And more importantly: why are we so impressed by it? It just emulates the way we talk. It doesn't dó anything.

Now. if someone were to ask mé what the inner human dimension of climate action is I would say this:

"The inner human dimension of climate action is that we don't do fuck all about the climate. We have organized 27 international climate conferences and it hasn't changed the increasing emissions of greenhouse gasses one bit. The 28th climate conference is chaired by an oil sheik, for crying out loud! The world has 'pledged' to bring CO2-emissions down to zero around 2050. At least, that's what they say, pledge and promise in each climate conference. In fact, yearly CO2-emissions of fossil fuels and industry are expected to rise from 37 to 43 gigatons and the atmospheric CO2-levels and average surface temperature will rise with it.

Who are we kidding? There's plenty of brilliant, green, innovative and sustainable ideas and initiatives going around, but at some point, you would expect these numbers to start going down. But they're all going up! ChatGPT won't change a damn thing. No AI will. No book, video, analysis, report or conference ever has. The only viable question to answer, if we want to escape the vicious circle of sheer stupidity, is: what are we going to do different this time?"

That's what I would say. Stop being so damned impressed by ChatGPT. It's not going to solve our problems; it only reiterates them."

5·3

SM429

About the rise of AI and the fall of the original human

I read an article somewhere that by 2025 more than 75% of all content will be generated by AI. By that time, it can no longer be distinguished from 'real content'. As an author, speaker, trainer, musician and photographer I am extremely concerned about this development.

I'm still lugging around with a Nikon D800 and a bag full of the best lenses — together easily about 6 kilos — while the first idiot nowadays simply takes out the smartphone. Aim, shoot and ready. It has taken me years to painstakingly sift through countless terabytes of photos and select the best materials for my photography website. But an AI only has to look at it once to endlessly reproduce my work on any topic.

- But is it the work of photographer Bart Flos?

I've spent 5 years composing a Solo/Trio Jazz Suite and even released a triple CD album in 2019 - my 10th CD! — while the AI only has to listen to my work for a moment and then produce an endless number of similar compositions in a matter of seconds.

- But is that the musician Bart Flos playing there?

I have written 6 books in the past 12 years. That is an enormous amount of work. People usually have no idea what it takes to get a book published. It's blood, sweat and tears, endless writing and scrapping and then some. Over the years I have published thousands of weblogs, posts and comments, given hundreds of interviews and authored countless articles for newspapers and magazines, all of which can be found on the internet. An AI only needs to look at it for a few picoseconds and then it can produce an infinite amount of material written entirely in my style, on any subject.

- But is that the author Bart Flos writing all that stuff?

I am a speaker, trainer and teacher and have given thousands of presentations, trainings and workshops 'Flossian style', which makes me unique from other speakers. An AI only needs to see a few of them to create a perfect avatar of me and then let me convey any information "Flossian style".

- But is it still Flossian?

Who is that avatar then? Who am I then? What else is unique about me if everything I am can be copied perfectly?

- Who will still need me then?

I am genuinely concerned about current AI developments. It's moving so damn fast and it's being embraced so eagerly. It is extremely frightening to see how quickly we're prepared to squander our uniquely human abilities.

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The Big Problem: Overconsumption
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And therefore, while you still can:

- This is my photography website: www.bartflosfotografie.nl

- This is my music website: www.bartflos.com

- This is my company website: www.bartflosveranderadvies.nl

Go take a quick look because before you know it there's a perfect avatar of me walking around somewhere who swears that he really is the one and only Flossian Bart Flos and that its 'the other' that is the 'real' imposter.

And that scares the bejesus out of me.

SM435

Why we don't need another brilliant, hightech application

I saw an article from a tech company promoting the newest application to monitor climate change. It enabled the user to play with data and diagrams and manipulate charts to check the influence of climate measures on the output.

Brilliantly done and it looked impressive. It ticked all the boxes and it had all the aspects of an innovative application, fully responsive and immediately available for download. In today's tech world there's nothing we can't in anyway shape or form depict in a database with processing system, with a Generic User Interface that makes it easily accessible and even easier to use.

This was my response:

"What do we expect to happen now we have this brilliant application available? Will the super-rich now bow their heads in shame, dismantle their multinationals and withdraw all of their capital from the Cayman Islands to give to the poor and save the planet?

We know this already! We already knów what we need to do to mitigate overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat. Environmental pollution, destruction of the biodiversity

and climate change (!) are mere symptoms of overshoot. Overshoot has not just started; it's been going on for more than half a century and is currently in its accelerating phase.

We've had 27 climate conferences, produced thousands of climate studies by hundreds of climate scientists. Each report is more dire than the previous one. We've produced countless, books, reports and articles, done 'a million' presentations, workshops and conferences on the matter. None of it had any durable influence on the inclination curve of the emissions of greenhouse gasses.

Do you want some more frontal confrontations with reality? What about these statistics:

- CO2-emissions of fossil fuels and industry were 37,5 gigatons in 2022 (a gigaton is a billion tons), the highest ever recorded, rising to 43 gigatons in 2050.

- CO2-level in the atmosphere is currently 420 ppm (parts per million), rising to 500 ppm in 2050.

— We burn 100 million barrels of oil, 22 million metric tons of coal and 11 billion cubic meters of natural gas each day. These numbers are going up, not down.

- Each day we ad 150 million tons of CO2-equivalent to the atmosphere.

— The average surface temperature is 1,2 degrees C above preindustrial levels. We might see the 1,5 degrees C barrier broken within the next 5 years or so. If you put a marker on the curve of increasing greenhouse gas emissions for all of the climate books, reports and conferences of the past half century, there's no impact. None!

What does that tell you? The presentations and tools about our existential predicament are getting more and more fancy. That's great but it doesn't help. The question should be:

- What are we going to do different this time?

Here's a frontal confrontation for you. This is what really needs to happen if we want to mitigate the consequences of 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 dó something about overshoot.

Who's first in line to volunteer?

SM446

Taking AI development just a few steps further

I read an article with a video demonstration of an AI that is now able to enhance any existing video footage into a CGI movie. Amazing, don't you find? How fast it is going?

Now let's take this one step further, shall we? Because let's face it: our brain doesn't necessarily require reality to feel or experience something. It only needs the most accurate approximation any given technological system can provide.

The technology in the video 'only requires the original footage to enhance'. Fine. But why stop there? Because AI can already create the perfect natural environment and recreate it on screen. AI is analyzing human output 24 hours a day, all days. Each picosecond it learns, it adds to its cold, copied, mimicked and emulated database of human output.

But it does it better, more efficiently, more accurately and faster than we can possibly fathom. Just imagine an AI not only enhancing existing imagery, like that initial footage in the video, but creating that environment itself. Completely lifelike, based on all of the human production of imagery combined. No humans required. It will create actors, props, environments,

lighting, the whole shebang, in a matter of seconds. You just write a script and the AI will provide the movie. Ready in just a bit.

Ok. Fine. Nów what are we going to do? Learn the AI to write its own scrips?

Well, just imagine an AI learning to write a script itself. It only has to review a few million of them in a couple of picoseconds. Now it's completely independent of human beings in the creative process. But the end product is still a movie that we'll want to see.

Now imagine two AI's writing scripts and making movies, showing it to each other. They can copy each other's work and learn. But they still would depend on us poor humans providing the electricity they need to run themselves and the databases they need to process data. Now imagine an AI learning to run an electricity plant. Or a nuclear power station. It's technology that's easily copied and enhanced. It could also excavate fossil fuels to keep these stations running underground.

It doesn't matter that the atmosphere is flooded with greenhouse gasses, because it doesn't affect the AI. Only if climate disasters destroy the infrastructure, it might hurt them. But they will have multiplied by then and just rebuild the infrastructure elsewhere. It's not that the AI will ever develop into a terminator to destroy the human species. That's complete nonsense and totally unnecessary. We would just become obsolete. Everything we are would have been copied by then and enhanced subsequently.

Not only would we become obsolete, but the AI would be completely indifferent about us, just like our planet is, and the cosmos. Because human empathy is not necessary for AI's purpose. Those kind of soft skill human trades would simply not be copied. So yeah, interesting developments indeed.

SM448

'Please forgive us, AI, we don't know what we're talking about'

Maybe at some point in the near future we will come to the realization that we were just a bunch of ignorant morons when it came to AI as ChatGPT. That we were convinced that AI could do all these neat tricks, but it would never defeat human uniqueness. At this point it doesn't matter which media outlet writes about this, whether it is The Guardian or The New York Times or any other well-established newspaper or magazine. We're all in this together and we're all equally ignorant to what's coming with AI. Here's why.

We seem to regard AI like ChatGPT as static. We don't seem to recognize that we've crossed a critical threshold. Yes, AI has surpassed a tipping point: the genie is out of the bottle. We can't stop its exponential development anymore. With both the virtually limitless computing speed and memory space available to it, AI is able to process petabytes of data in peta-seconds (I'm exaggerating for dramatic purposes here, although Moore's Law might soon be catching up on me). A few things to consider here:

1 - Stop looking at AI as to what it is now

We must recognize the exponential rate in which it develops. Our brains aren't capable of understanding accelerated growth. That makes us a potential victim of our own technology. AI will double its capacity each year or so, bringing it to unimaginable capacity soon. Each time we correct it, it will learn, remember and enhance. The speed of that process is beyond our grasp.

2 - Stop squandering our unique attributes as a species

AI will copy everything that we are. It will keep on learning and improving. Everything that we are will be mimicked, emulated and copied at light speed. We marvel at AI's capability, but we sell out our own human distinctiveness at the same time.

3 - Open the black box and look inside while we still can

We alréady don't know how AI reaches its conclusions. We're so eager to adapt to its capability that we rush towards our own ignorance and stupidity. We múst look inside and open the black box now. And come up with new laws to adapt to the speed in which AI overflows the market.

Our social media platforms will be inundated with AI content soon. Who needs humans then? Let the bots play their game and talk to each óther.

- How will we distinguish the perfectly emulated human dialogue, photos and videos from the real ones?

Who would want to go back to that 'inferior time period' of imperfect data?
Who would want to go back to grammatical errors, imperfections in facial expressions and time glitches in video footage?

Let AI do the work, we say. It's harmless. Ok. And thén what are we going to do? Make fire, cook meat and throw stones and spears at each other?

5•7

SM451

Why didn't you just ask the AI to do it for you?

I saw yet another proud post presenting the answer to an elaborate prompt fed into an AI such as ChatGPT, as though the answer was the result of some brilliant reasoning by the human being itself. The full text was displayed for us to gaze over, be in awe about and fall to our knees for from sheer awesomeness.

This was my response:

"I'm not impressed at all. The AI has just mixed and matched words that were written by humans before. Without a shred of creativity, it has produced a text that appears creative to our brain. Why are we impressed by this? It only took a prompt of 20 words and AI produced the text in milliseconds. What an achievement that is! Somebody used a keyboard to type in some words and AI did the rest.

'Look mum, without hands!'

Why use a keyboard? Just feed the prompts verbally. Use voice-controlled devices to feed the AI. Just sit in a chair or lay down in bed and spit out prompt after prompt, whilst getting lazier and dumber by the minute.

It's quite disconcerting that we're posting these produces of AI - text, images, paintings, videos, poems, music, art - like we've produced them ourselves. And it's quite disconcerting that we embrace AI with awe and amazement, whilst feeding it with enhancements, corrections and improvements. It will just get better at making us lazy, dumb, less intelligent and less creative.

I would have been impressed and inspired if a human being had come up with this description of a new human emotion. That would have been neat. Just consider this: if you had said that you came up with the answer yourself, who would have believed you? Proudly posting a comment on the output of an AI which is the result of just typing in 20 words and then copying the created text is not an act of brilliance at all.

Coming up with a completely new human emotion yourself, by thinking about it, contemplating it, doing some research on it and then use creativity and imagination to produce an inspiring piece of text — that is a unique human trade. Leaving it up to an AI is lazy and stupid.

Let me be clear: using AI to create management summaries of long and boring legal texts for example, that's perfectly fine. AI is just another word processor or spreadsheet then, helping us with arduous and boring operational tasks. But proudly showing AI output that emulates human creativity by just entering a short prompt and which requires no creativity or ingenuity of our own, is lazy and stupid.

If someone lacks the ability to communicate clearly, what is the better way to improve: (1) helping this person by genuine human support, assistance and guidance or (2) learning to key in short prompts and repeating what the AI says? Nobody will get better in communication if we ape an AI (pun intended).

- We are not learning! The AI is learning. Exponentially.

- We're not getting smarter! The AI is getting smarter. Exponentially.

- We're not getting more active! The AI is getting more active. Exponentially.

- We're not getting more intelligent! We're getting more stupid and lazier the more we hand over to the AI. Exponentially.

This is serious shit. AI will inundate the internet with fake crap. Some will say that certain output is generated by AI, others won't. Some will use it for the better, others will create havoc. I find it highly frustrating that I won't be able to tell the difference between AI output and human output anymore. And I find it even more frustrating that my unique skills as a human being - I'm an author, speaker, musician, composer and photographer - are being squandered by AI.

Nothing I have produced will impress the AI generation. AI will copy my work in nanoseconds and create better versions of it in unlimited capacity. You won't be able to tell whether I made it or AI made it. The AI generation will chuckle at my long hours of practice to sharpen my skills.

'Strange. Why didn't you ask the AI to do it for you? It's faster, better, more creative and smarter than you'.

SM517

Grasping at technology is like grasping for straws

With all the good and hopeful news about the growth of 'green energy', the 'rise' of solar and wind energy, the increase in production of EV's and the improvement of battery technology — we think that we will be ok, that it is nót too late and that technology is going to save us from our existential predicament: societal collapse as a result of overshoot or overconsumption, when a species exceeds the carrying capacity of its habitat.

Is technology going to save us? It is not. Technology is going to sink us.

We seem to forget that, at this time, in order to develop, produce and deploy green technology, we still need (a lot of) fossil fuels. That will push us over the edge and bring us across that point of no return. I'm not being overly dramatic here. To illustrate that, here's what we actually need to do:

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

That is the energy-equivalent of our collective effort to fix our existential dilemma. Currently there is no globally consolidated, consorted or coordinated effort to mitigate overshoot that even comes close to this 'List of Seven'. It's not meant to realistic or feasible. For each of the seven efforts we can start a debate that will go one for decades. Time we don't have.

The atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have entered a state of cascade failure, the prelude to suprasystemic collapse. The jetstream is meandering, the oceans are overheating, acidifying and deoxidizing, the global ocean currents are destabilizing. Measurements of land and sea temperatures are off the charts, they're 'statistically impossible'. Yet here we are.

This year [2023] has shown what our future is going to look like. The extreme weather and climate disasters have grown in frequency and intensity and the heat now covers entire continents. Our natural tendencies are to think that when the sky has cleared, the water is drained, the temperatures are back down and the debris is cleared, it won't come back, or if it does it won't be for a long time, or it won't be that bad, or it will be somewhere else.

But we just don't realize how exponential growth works. Because the extreme weather and climate disasters will come back, maybe even next year, or next quarter, or next month. Or next week. And it will be more disastrous, more destructive at every turn. And it will last increasingly longer and effect more areas, more people. It won't be someplace else: it will hit you and your community again. And again. And it will hit you harder.

The human species is remarkably resilient in nature. We sit out the storm, get out of our shelters, lick our wounds and start recovering. We rebuild our

houses right at the very same bank of the river that destroyed it. We reconstruct our villages on the same woodland that burned it down. And we keep moving to places that are designated to be climate change disaster areas in the future.

That's what we do, because it was never this bad in the past and we think that at some point it will get better in the future. We're gravely mistaken this time. We have no idea what's headed our way and we just keep on pumping hundreds of million tons of greenhouse gasses into the atmosphere every day, like there's no tomorrow.

It's quite disconcerting really.

Chapter 6

The climate collision

6.1

SM417

To be flabbergasted by climate change facts and figures

It never ceases to amaze me that we are able to talk about 'successes' and 'considerable progress' and 'hopeful developments' when we say we have improved, updated and accelerated our plans, schedules, pledges and promises to limit the average global surface temperature to 1,5 degrees, when our actions in reality, since we're not actually doing anything to execute these plans on a global scale, drive us to cross that threshold within the next five years or so.

Are you perhaps flabbergasted by that? Really? Then flabbergast some more:

— We currently emit 150 million tons of CO2-equivalent every day, which is the total of all greenhouse gases, including water vapor, methane, nitrous oxide etc.

- The emissions of CO2 of fossil fuels and industry were 37,5 gigatons in 2022 (a gigaton is one billion tons), which is about 100 million tons a day. That will rise to 43 gigaton in 2050, 118 million tons a day.

 We currently burn 100 million barrels of oil, 22 million metric tons of coal and 11 billion cubic meters of natural gas per day.

- We produce, also daily, 190.000 non-electrical vehicles, 1 million metric tons of plastics, 5,5 million tons of waste and 11 million tons of cement.

— The CO2 level in the atmosphere is currently about 420 ppm. Over the past 800.000 years, that level has never risen above an average of 275 ppm due to natural causes. Humans have caused this 50% increase over the past 200 years. That is 0,025% of those 800.000 years.

- CO₂ remains in the atmosphere for thousands of years. Since the industrial revolution started, we have pumped some 1.500 gigatons of CO₂ into the atmosphere. Every single molecule of CO₂ of those past emissions is still in the air.

— If we want to remove all of that emitted CO2 including the 37 gigatons we add each year, within a time scale of, say the next ten years, we need to capture, store or reprocess about 500 million tons of CO2 every day.

As it stands now (according to the economic plans of the world's 200 countries), we are not going to reduce greenhouse gas emissions at all. We are increasing them from 54 gigatons of CO2-equivalent in 2022 to 62 gigatons in 2050. That will add another 1.000 gigaton of CO2 to the atmosphere, bringing the total accumulative to 2.500 gigaton. If we want to remove all yearly and cumulative CO2-emissions of fossil fuels and industry by 2050, we must capture and process 93 gigatons of CO2 every year for 27 years straight. That's 255 million tons a day!

All these facts are in complete contradiction to the pledges and promises made at all climate conferences put together.

Look, let's not sugarcoat this. When we go beyond 1,5 degrees of warming, let alone across the 2 degrees threshold, we will trigger climate tipping points that are well beyond our means of intervention. A runaway climate is a worst-case scenario. We won't be able to stop it anymore. It will go out of our control.

Let's say that we keep on feeding our neoliberal, capitalistic, consumeristic, growth-economic free market for another decade or so, adding an additional 600 gigatons of CO2-equivalent to the atmosphere and the weather gets really out of control with gigantic climate disasters washing over the planet and mass migrations that drive us to conflict and war, let's say that we wake up by then and come to our senses.

But there's no off switch for climate change! You can't flip a leaver or something to make it better. Once the tipping points are turned, planet Earth will seek a new equilibrium. But it will be completely indifferent to whether the human species will have a place in it.

Still flabbergasted?

SM440 Fighting climate change is not about being fair

Fighting climate change isn't about being fair or unfair; it's about our checkbook. So, we should be charging countries for past emissions and actual emissions. If someone causes material or physical damage to someone else, willingly or unwillingly, someone has to pay. Well, the continual emission of greenhouse gasses cause grave damage to the environment, the biodiversity and the climate and the situation is getting more precarious every year.

So, cough it up, humankind, take out your checkbook and signing out your checks.

But what would be fair? Do we charge countries for past emissions or for actual emissions? I suggest the fair thing would be to do both. It doesn't matter how much CO2-emissions you might have reduced in the present; it matters what you emit now and what you have accumulated in the past to grow your economy.

I've done the math and the outcome is quite staggering. What I've done is to look at both cumulative emissions from 1751 to the present day and actual yearly emissions of CO2 for fossil fuels and industry per country. The premise here is that each country must pay for their fair share of emissions, so they must pay for the continual removal of the total (!) of CO2 out of the atmosphere

between now and 2050, that's a period of 27 years, 7x24 hours of arduous CCS (Carbon Capture and Storage).

The cost of removing one ton of CO2 varies between \$100 and \$1000 depending on assorted studies, so I've chosen the middle ground: \$500. If you're overly optimistic you can divide my findings by 5 or, if you're more pessimistic, multiply by 2. I won't bore you with too many specifics — it has become quite the spreadsheet — but I'll suffice here with the ballpark figures.

Let's take the USA for instance. Current CO2-emissions are 5,1 gigaton per year (a gigaton is one billion ton), but the accumulated emissions are 399 gigaton. If the USA has to remove all of the historic CO2 and the yearly emissions for the next 27 years, that amounts to 19,9 gigaton of CO2 each year, or 1,7 gigaton each month.

The cost for the USA would amount to a staggering \$ 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 each American citizen for 27 years in a row without a stop. And only then would the contribution of the USA for growing their economy be fully compensated.

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 almost equal to that of the USA, \$ 9.142 billion per year or \$ 762 billion each month. But because there are more than four times as many people in China than in the USA, the cost per capita would amount to \$ 6.475 per year or \$ 540 per month. For 27 years. Without a stop.

For Europe we would be looking at a removal of 16,6 gigaton each year or 1,4 gigatons per month at a cost of \$ 18.564 per capita per year or \$ 1.547 per month for each inhabitant of Europe for 27 years straight.

If you look at the six 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 the 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 capita 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 as a species, if we are committed to clean up our own mess, 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 right, each of the 8 billion inhabitants of the planet earth would have to, on average, contribute with a cleanup charge of \$ 485 per month, for a period of 27 years, without letting up. For each and all of us, of course in all fairness proportionally adjusted for actual emissions per country and per income group.

I can see the reluctance of word leaders to get their checkbooks out. Do you see it too?

SM500

We can't fix our problems by 'just' doing this and 'only' that

Somebody wrote a passionate post about the 'only things' we 'just have to do' to solve all of our problems with the environment, the biodiversity and the climate. 'We *only* have reduced CO2-emissions with 5% each year' and 'we *just* have to ramp up the development of solar, wind and nuclear'. It made me smile. I couldn't help it. It made me smile because it is quite rare to see só much naivety in one post.

Don't get me wrong, because I get it. I understand the sentiment. It is passion grown from frustration; enthusiasm sprung from anger. It is excitement coming out of helplessness, hope being propelled from despair. Once we dig into the multitude of existential problems humanity faces, it will soon overwhelm us and it is always better to transform feelings of frustration, anger, helplessness and despair into passion, enthusiasm, excitement and... hope.

But still I smiled. Because it is false hope brought by false prophets. What we have done to our living environment over the past 70 years is way beyond things we 'only' or 'just' have to do to fix it. So, this was my response:

"Wait! Hold your horses! Let's consider what's actually being said here.

Say we reach agreement across all 200 countries of the world to reduce
 CO2-emissions with 5% each year.

Say that we can convince all 200 countries of the world to ramp up the development of solar, wind and nuclear energy to replace all fossil fuels.
Say we can convince all 200 countries in the world that they are not allowed to deviate from this path ever again, not under any circumstances, not even in case of conflict, crisis, disaster or war.

Say we do all that and then...

Now wait just a minute! We've done that already. Yeah, I'm sure we've had 27 international climate conferences to do all that. And subsequently did nothing to change anything, at least not on a global, sustainable scale.

We kept increasing the global emission of greenhouse gasses, rising the global atmospheric greenhouse gas levels, raising the global average surface temperature, growing the GWP (the Global World Product, the sum of all GDP's) and growing the world population with 80 million people each year, throwing us into a state of ecological overshoot (*). And now, the 28th climate conference will be chaired by an oil sheik, for crying out loud!

We've taken over 70 years to pollute, destroy and heat up our own living environment and now we are beyond repair. It's too late, we've waited too long. The atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have entered a state of cascade failure, the prelude to suprasystemic collapse. The jetstream is meandering, the oceans are overheating, acidifying and deoxidizing and the global ocean currents are destabilizing. Those are planet Earth's Main Management and Control Systems for which there's no on/off switch, no reset button and no edit/undo function.

And no, we can't 'just' fix our existential predicament by 'only' doing a little bit of this (and a little bit of that) and by asking the 200 countries of the world to 'please, please, please, stick to your promises and pledges this time, would you please, please, please?'

That's us, ladies and gentlemen, that's the human species right there. If it wasn't so d*mn serious, we'd all have a good laugh about it. I wonder what kind of extreme weather event or climate disaster will be necessary to make us realize that we're not Homo sapiens, the 'wise, modern, thinking man'. I wonder how long it is going to take for us to realize that were in fact *Homo infantilicus*.

(*) 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.

SM505 It's getting hot out there

I read a post with an article describing 'heat domes', the prolonged heatwaves that emanate from it and the subsequent temperature records that are broken, not in tenths of a degree, but multiple degrees per incident. This year, 2023, recorded heat events that spanned entire continents. It left the scientific community in awe and amazement and they revisited their climate models to see where they went wrong.

This was my response:

"Good story. Factual and supported by evidence. Heat events are off the charts all over the world. Look at just one of the countless examples of statistics that are 'impossible' and weren't predicted by even the worst of the worst-case scenarios. But the intensive and extensive heat is not hitting land alone. The oceans are inundated with heat waves too, causing massive extinctions of marine life.

The only reason why we don't talk about it as much, is because we don't live in the oceans (anymore). We just don't see it on a daily basis. Whilst the increase of heat waves, droughts and forest fires — and the increase impact on health and wellbeing — are still relative limited to specific regions in the world — we don't get heatwaves all the time everywhere yet — we don't seem to realize that we cannot live without life in the oceans!

Our oceans make up 70% of the earth's surface and we have pumped só much heat into them, that they have become saturated. And it shows. As a result, our oceans are becoming more and more acidified and deoxygenated. I understand that we're focusing on our regional problems, but the shit is hitting the fan on a global level.

It's quite disconcerting, really. Our news outlets are inundated with all kinds of reporting about the climate, the biodiversity and the environment, each on the individual, local, regional and national level. But most are missing the bigger picture. Environmental pollution, destruction of the biodiversity and climate change are not core problems, they are symptoms of the overarching issue: overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat. That is the real, overarching existential issue.

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

SM516

What do we do when we read about bad climate news?

Just a random example of the disturbing news inundating the news time lines around August of 2023:

"In India, the world's most populous country, officials said this August was the hottest and driest since national records began more than a century ago. The month falls in the middle of India's annual monsoon, which usually brings up to 80 percent of the country's yearly rainfall. But despite heavy downpours that caused deadly floods in the country's north earlier this month, overall rainfall has been far below average.

August saw an average of just 161.7 millimeters (6.4 inches), 30.1 mm lower than the previous August record in 2005, the India Meteorological Department (IMD) said. That has left the country baking in unrelenting heat.

'The large rainfall deficiency and weak monsoon condition is the main reason, the IMD said.' Authorities in Japan also said Friday that the country had experienced its hottest summer since records began in 1898. Temperatures from June to August were 'considerably higher' than average across the north, east and west of the country, the weather agency said.

In many locations not only maximum temperatures but also minimum temperatures' reached record highs, it added. And in Australia this winter was the warmest on record, with an average temperature of 16.75 degrees Celsius (62.15 Fahrenheit) for the season running from June to August. That is a hair above a record set in 1996, and the highest average winter temperature since the country's records began in 1910, the Bureau of Meteorology said the effects of heat are unevenly distributed, with small children and the elderly less able to regulate their body temperatures and thus more vulnerable.

Those who have to work outside are also particularly at risk. Even a healthy young person will die after enduring six hours of 35-degree-Celsius (95 Fahrenheit) warmth coupled with 100 percent humidity. But extreme heat does not need to be anywhere near that level to kill people, experts warn. John Nairn, a senior extreme heat adviser at the UN's World Meteorological Organization (WMO), said last month that heat waves are 'becoming much more dangerous'.

'It's the most rapidly emerging consequence of global warming that we are seeing,' he told AFP in an interview. 'People are far too relaxed about the signs,' he lamented. 'It will only get more intense and more frequent.'"

Whilst reading it, I was wondering what happens to the reader when exposed to such frontally confrontational information. Since I published my 6th book *De mens als grens* ('Our Inner Limits'), I have written over 500 posts with similar messages, getting more dire as the symptoms of climate change grow in intensity and frequency.

I imagine a random reader scrolling through these endless timelines, taking it in, maybe get a little disconcerted even, but then having to choose what to do

next. I mean, it's quite overwhelming news and it is getting worse every turn, but the average reader is also an individual, with daily chores, as part of a small social group of family, household, friends, colleagues and teammates, with similar chores.

These small social groups are part of large groups (companies, multinationals) and small and large societies (neighborhoods, villages, towns, countries) with similar chores. Individuals, groups and societies form a suprasystem: planet earth with 8 billion people, growing to 10 billion in 2050, all wanting to get rich, healthy, happy and grow old. These collective chores, fragmented across hundreds of millions of small social groups, result in 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. And still, we keep on going at it. I find it both fascinating and frightening that we're all in the midst of this accelerated extinction event, this time of our own species, with full knowledge of it, and all the solutions in place, but unable to execute a consorted, coordinated, consolidated effort to mitigate the consequences of overshoot.

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

(*) 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.

Chapter 7

The collapse

7.1

SM413 I cry for humanity

I have just watched the documentary 'Mariupol: The People's Story'. And I have cried.

I have cried for the people of Mariupol in Ukraine. Because this documentary makes you feel it right down to the bone. It makes you feel the meaningless destruction of war as if it were your own hometown that's destroyed to the last brick. It makes you cry for humanity.

Yes, I freely admit it here on this platform: I cry for humanity. I've spent two years doing research and I've authored a whole book about the nature of the beast: Homo sapiens, the 'wise, modern, thinking man'. But when I see documentaries like this, I cry for humanity. But it also happens when I'm alone and improvise jazz on the piano or listen to the jazz and pop tunes that rock my boat, touch my soul and ignite my heart. That's when I let it go and really cry for the human species and its dire predicament.

And since I have a vivid imagination, I always see future generations being exponentially worse off than the previous ones. Children born innocent into a dying world with no chance to undo what has been done. I've thought about it a lot, investigated it, wrote it all down and it hurts me to say this, but our children will, if we don't step up as a species — and there are no signs that we are, not on a global scale that is — already experience the brunt of global warming in their lifetime.

Prolonged droughts, extreme downpours, mindbogglingly hot heatwaves that go on for weeks and weeks, ferocious forest fires, water shortages, mass migrations, border conflicts, inequality, divisiveness, intolerance, war and systemic collapse of the infrastructure. The years 2023 -2025 will get far worse than the years 2020-2022, because we will see a heat spike due to the reversal of the El Niño - La Niña - process in the ocean currents. For the past three years it has dampened the warming of the atmosphere due to its cooling effect.

Without it, global warming will be intensified, maybe leading to global average surface temperatures to rise to 1,5 degrees Celsius above preindustrial level already in 2024 or 2025. 'You're in for a treat', Global Warming would say, if it were a conscious entity. What even hurts me more to say is that our grandchildren will even see it get a whole lot worse. It doesn't sound like possible and we would rather want it to get better, but it won't. We can't 'think it well' or 'wish it to get better'.

So yeah. I think I'll hit the piano keys again later. Because, just to make myself clear, I'm not a crybaby. Most of the times when I'm improvising on the piano, I fully immerse myself into the music and all my rational thoughts completely disappear into the back of my head. I'm thoughtless when I play and that's my escape. And then I *pick myself up, dust myself off and start all over again*.

SM421

We are with 8 billion people already. Who's going to stop us?

If you scroll through the timelines of our social media and news platforms and try to disregard the trivial postings about funny cats and dogs, posing celebrities, corrupt politicians and the countless advertisements of all the stuff we have to buy and all the things we have to, you might notice the growing concerns about the direction the human species is headed.

Depending on somebody's area of expertise, or field of interest, you see specific economic, ecological or existential topics being highlighted, emphasized and enlarged. The number of details is staggering and you find yourself easily overflowed with knowledges and information. But each of these heavy topics can easily cover a pile of books, so it tends to overwhelm us. When that happens, we zone off, back down and withdraw to our daily chores. Because that's what we're familiar with, it's where we feel safe and secure.

It's equally wrong to draw attention to one or the other subject. There equally unimportant on their own as they are important as a whole. Environmental pollution, destruction of the biodiversity, global warming, division, inequality and intolerance are mere 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 and currently in its accelerating phase. Climate change / global warming is just the symptom that

shows its ugly colors more explicitly by the extreme weather events and climate disasters that wash over our planet.

The best way to grasp the enormous undertaking of fighting overshoot is to look at what we actually need to do:

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

That is the energy-equivalent of our efforts to mitigate overshoot. Currently there is no globally coordinated, consolidated or consorted effort that even comes close to this 'list of seven'. We are with 8 billion people on this planet, growing to 10 billion in 2050. Who's going to stop us?

7**·3**

SM424 'The tipping point that will destroy the world'

This video (see below) is over 7 minutes long. That's far more time than we usually spend on such existential topics. The further the subject stands from our daily lives, the higher the chance we won't watch it until the end.

Don't get me wrong: this gentleman is spot on with his assessment. We're in dire straits indeed. Environmental pollution, destruction of the biodiversity and climate change are all symptoms of a far bigger problem: overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat. Overshoot isn't just starting. It's been going on for more than half a century already and currently in its accelerating phase.

But here's my point: say that you watch this video all the way through. It's a calm, rational, sympathetic gentlemen telling us in a very polite English way that 'we are all going to *FUCKING DIE* if we don't get off of our asses right now!'

Ok, fine. Nów what?

What is the first thing you're going to do after watching this video? Somebody has just calmly advised you to drop everything and get a move on to assemble

2 billion people, spread this message and prevent the suprasystem from collapsing.

Let me put it to you bluntly: we knów this already. It's nothing new. It's only gotten worse. Not óne of the 27 (!) international climate conferences have ever made the slightest difference to the global emission of greenhouse gasses. Not a óne! We keep trying to change the system exactly the same way each time and every time we expect a different result. Wasn't that the definition of insanity?

Each environmental, biodiversity and climate report is worse than the one before. 'Oh shit' we mumble, 'that's not good. But it's not too late. We can still fix it, if we start nów...!'

Really?

— Currently we are burning 100 million barrels of oil, 22 million metric tons of coal and 11 billion cubic meters of natural gas every day.

 Yearly global CO2-emissions of fossil fuels and industry are over 37 gigatons. CO2-level is 420 ppm and rising.

-Global average surface temperature is 1,2 degrees C above preindustrial level and expected to surpass the 1,5 degrees marker within 5 years or so and the 2,5 degrees marker around 2050.

The GWP, the Global World Product, the sum of all the countries GDP's, is\$ 104.000 billion and rising.

Who are we kidding? There's plenty of clever ideas but at some point, you would expect these numbers to start going down. But they're all going up! This video won't change a damn thing. No video ever has. No book, report, analysis or conference ever has. The only viable question to answer, if we want to escape

the vicious circle of sheer insanity, is: what are we going to do different this time?

https://youtu.be/lIEu-OW9 YA ['The tipping point that will destroy the world']

SM438

Even in collapse there are still three things we can do

Since the publication of my sixth book, *De mens als grens* ('Our Inner Limits') as of March 2023, I've written over 600 mini-blogs of 500 words — like this one — about the existential problems of the human species. I regularly talk about the concept of 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 and it is important to understand that concept (see also Appendix IV).

As it stands, global warming will continue, further increasing the risk of triggering numerous climate tipping points. That is shocking news. The 1.5 degrees Celsius of global warming might already be reached within 10 years, 2 degrees around 2050 and 3 or 4 degrees before the end of the century. From 4 degrees of warming, we create hell on earth and at 6 degrees organic life on the surface and in the oceans can no longer be sustained.

Pretty dramatic, huh? So now what?

It is all so far removed from our daily concerns that these kinds of 'big' subjects don't really get through to us. It only makes us nervous, because it is getting more and more apparent in the news and it is getting closer and closer. But suppose I were to say that we don't have to do anything at all, because it doesn't

matter anyway. After all, if nothing changed after 27 (!) climate conferences (and we have the 28th chaired by an oil sheik), then nothing will change.

Suppose I was to say that the human species is doomed, that we are a 'suicide kind'. Should we just let go and be damned? Not quite. Even in the most dramatic end scenario — human extinction — there are still 3 things you can do:

1 — Change your attitude from "pre-apocalyptic prevention" to "post-apocalyptic mitigation."

In other words, stop worrying so much. Work less hard, enjoy what you have and appreciate nature while it is still there. Concentrate on a good life and on your humanity.

2 - Spend more time with your loved ones.

Cherish your partner, children, family, friends. Take extra time to be together, tell each other stories about the past and appreciate each other's company.

3 — Make sure you increase the resilience of yourself and your partner, but especially that of your children.

Things will deteriorate rapidly in the coming decades and under these circumstances it is not quite useful to complain about the Wi-Fi or about the weather. Instead, increase your physical and mental resilience.

So, you see, there is always something to do. More than worthwhile to quietly contemplate, I would say.

7**·5**

SM452

Watch what societal collapse really looks like

Do you know what *l'effondrement* means? It's French for 'the collapse'. It is also a French mini-series about the collapse of modern society as a result a worldwide catastrophe. I find it amusing that the French even make something horrific as 'collapse' sound like some food processing technique or something.

L'effondrement offers ten brilliant episodes of fifteen to twenty minutes, all filmed in one long, seamless take, depict in a frighteningly realistic way what happens to us when our society collapses. Without unnecessary effect, without the usual Hollywood hysteria and with a disturbing sense of reality, given that the series was shot in 2019, before the corona pandemic.

It's left open what exactly is causing that collapse — financial crisis, economic malaise, environmental pollution, biodiversity destruction, climate change, all of the above — but that's precisely the strength of the series.

- If you want to understand the "hysteria" of climate alarmists, climate activists and climate fanatics...

- If you want to understand the concern of hundreds of climate scientists who, in thousands of pages of increasingly frightening climate reports, have to bend over backwards to avoid shouting 'ALARM!' en masse...

— If you really want to see and feel what happens to us when our familiar, safe, luxurious life is taken away from us with ruthless indifference...

...then I advise you to watch this series as soon as possible.

Just don't do what I did: finish all episodes one after the other. Because it is extremely disturbing, no, downright frightening to experience what happens to your feelings when something is portrayed so realistically, so penetratingly and so close to home. Watch one or two episodes at a time, spread over two weeks, is my advice here. And talk about it within your small social groups of family, household, friends, colleagues and teammates. Ask yourself critically:

"And now what? What should I do with it?" And then pay close attention to the first thing you'll do next. Anyway, it's an absolute must see.

Good luck and success with eh, feeling and experiencing!

https://www.imdb.com/title/tt11248266/ ('The Collapse' on IMDB)

SM453

The most important 50 hours of your life

I regularly write about the concept of 'overshoot' or overconsumption: when a population exceeds the carrying capacity of its habitat. Overshoot always leads to collapse. In our case, which means the collapse of our suprasystemic infrastructure. That sounds a tad abstract, doesn't it? Very understandable. And that's why I propose an experiment.

The experiment lasts 50 hours: two days plus two hours and it is intended for the whole family. The purpose of the experiment is to give a practical, tangible impression of what it means when our infrastructure collapses.

There are 7 elements:

1 -At 'zero hour', turn off the main switch of the meter cabinet or fuse box, close the main water tap and the gas tap. Lock the meter cabinet.

2 — The meter cabinet remains closed for two days and two hours and may only be opened under exceptional circumstances, for example for medical reasons, in the event of an accident or other unforeseen circumstances.

3 — The prior knowledge of this experiment must not be abused. Therefore, no 'stock' of water, gas, electricity or petrol may be built up in advance. This experiment is to simulate the collapse of the infrastructure.

So, you have to make do with the 'stock' that you have at the time of the collapse: when all supplies are cut off. If you have a fireplace or multi-burner, you can of course use it, but you are not allowed to bring any additional combustion material.

4 -You are not allowed to go to a supermarket, hardware store or any other supplier during the experiment. We assume that all those shops have been completely looted.

5 - If your neighbors join the experiment, you are allowed to share resources or trade commodities. Or seek support from each other.

6 - It is not allowed to use a vehicle. We assume that all available gas and petrol has been looted and the roads are littered with useless cars and trucks.

7- The experiment lasts two days plus two hours.

Why two days?

After about a day, the battery of the smartphone and laptop is empty: no social media. The TV doesn't work either: no Netflix. The idea is that you wake up the second day in a dark, empty and cold house and you think 'oh shit, we have yet another day to go'.

Why plus two hours?

After exactly 48 hours, the meter cupboard may not be opened yet. Everyone gathers in the living room and shares their past experiences.

Ask each other: "What if this was permanent? What would we do then?"

Once the infrastructure has been restored, at the '50th hour', the smartphones and laptops can be charged again and the experiences may be shared with the rest of the world.

Good luck and success!

7•7

SM454 Why it's already too late to save civilization

I've been writing about overshoot a lot lately. Overshoot or overconsumption happens when a population exceeds the carrying capacity of its habitat. Environmental pollution, destruction of the biodiversity and climate change are symptoms of overshoot. We're not just entering a state of overshoot; it's been going on for over half a century already and currently in its accelerating phase.

If you have time, or better said, if you are able to free some of your precious time and resist the urge to further scroll down the endless timelines of the social media in general and LinkedIn in particular, this article from Alan Urban from the 'Collapse Survival Site' is well worth the read:

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

But I caution you: it's not a nice story, not a pretty prospect and not exactly the glimmer of hope you were searching for in all of the disturbing news surrounding our existential predicament. But it needs to be told and it needs to be heard.

Whilst visiting this site, just look around a little bit. With all the 'hope for a better world for all of us' floating around, it's a bit of an acquired taste, reading

about the end of human civilization so openly and explicitly. At the end of one of the articles the author provides us with three things we need to do and I quote:

1 - We need to stop blaming each other and start working together.

2 — We need to create a culture based on sustainability instead of consumption, a culture where we care more about leaving things to our children than acquiring things for ourselves.

3 - We need to eliminate the idea that humans are separate from nature and remember that we are all part of nature.

(Overshoot: Why It's Already Too Late To Save Civilization (collapsesurvivalsite.com)

Allow me to be blunt here and provide you with the reasons why I say 'néver gonna happen':

1 - We as a species are intended to blame each other and we are meant to refuse to work together when the going gets tough.

2 - We care only about ourselves in the here and now, not about future generations in the there and later.

3 - We don't care about nature, in fact, since we dominate the planet, we act like we're above it, separate from it and masters and commanders of it.

Why? Because that's how we're programmed by evolution and natural selection. When push comes to shove, the global community doesn't exist, the two hundred countries of the world don't exist, regions, counties, provinces, cities, towns and villages don't exist.

The entire human population of 8 billion people is fragmented, divided and splintered across hundreds of millions of small social groups of family, household, friends, colleagues and teammates. All of these small groups are led by individuals, either formally or informally. All of these individuals want to get rich, healthy, happy and grow old. We all want to at least keep what we've got, preferably get a little bit more.

We can't help it. Our brain acts as though we are still social group mammals and hunter-gatherers. And it is that programming that will determine our fate.

SM476

We keep rearranging the deckchairs on the Titanic

I saw a passionate post by someone urging us to stop eating meat and go vegan, or at least go vegetarian, or at least try to cut back on eating meat a couple of days per week. Although I understand the sentiment and agree that if we would áll do that, the world would be a much better place to be in, for us, but mainly for the hundreds of millions of animals we torture, slaughter and consume every year (almost 100 billion animals yearly), I doubt whether posts like this will actually break our food consumption habits.

Sometimes I read through the comments to such a post, knowing full well that it is not a representative sample of the world population's view on our daily diet, just to see how such a message resonates with the local audience on, in this case, *LinkedIn*.

And lo and behold, we are again distracted by isolating a single topic of conversation, magnifying it and getting split between one group ('stop eating meat, save the animals!') and the other ('mind your own business; I eat what I want!').

This won't change anything and it won't 'convert' people. It's a theoretical debate between utopia (where everybody is an earth-loving vegan) and dystopia (where everybody is an earth-destroying meat-eater). Eating meat is

not the problem. Polluting the environment isn't either. Biodiversity loss is not the problem, neither is climate change.

They're all symptoms of the overarching issue: overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat (*).

There are three freedoms that make it worse:

The free market
 Freedom of speech
 Free will

We are free to exploit the neoliberal, capitalistic, consumeristic, growtheconomic free market, free so say and do whatever we want to defend our lifestyle (as long as we abide by the laws, rules and regulations of society) and free to eat whatever we want.

Having someone else convict us for applying these freedoms, angers us to a degree of defiance, alienates us from each other and distracts us from the real issue. We keep rearranging the deck chairs on the Titanic. It's quite disconcerting, really.

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

SM486

Buckle up, it's only just beginning

I saw somebody post a short comment to another post about the extreme weather and climate disasters washing over the planet. 'We're all doomed' - it read. This was my reaction:

"Well, in a way yes. But it depends on what you mean by 'we'. When I use 'we' it is oftentimes meant as 'we, Homo sapiens, "the wise, modern thinking man", humankind, human civilization as a whole, all eight million people roaming the planet.' And it depends on what you mean by 'being doomed'.

Doomed
 [/du:md/ - adjective]
 'Likely to have an unfortunate and inescapable outcome; ill-fated.'

We are ill-fated alright. But in general, on a global scale, we have great difficulty understanding what that really means. Because it is overwhelming and 'all-encompassing'. The atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have entered a state of cascade failure, which is the prelude to suprasystemic collapse. That sounds ominous and that's just because it is.

'Suprasystemic' means 'the suprasystem, or 'the System of Systems. It's planet Earth with all its inhabitants. It's the global economy and the global ecology combined, its everything together. You have to do some serious pounding to destroy a system of this size. And we have.

For over half a century now we are exceeding the carrying capacity of our habitat, a concept known as overshoot or overconsumption (*). The average surface temperature of land and oceans, the accelerated melting of polar and glacier ice, the frequency, intensity and distribution of drought, heat waves and forest fires, the extreme downpours and floodings — they are only just the beginning.

'Cascade failure' means that the unfolding of extreme weather and climate disasters will no longer follow a linear trajectory. The entire process will become chaotic and therefor totally unpredictable. We're only at 1,2C of warming and we have already passed the 'elbow' of the exponential curve.

But our demise will not be like a meteorite strike or an atomic bomb. This generation will see the beginning of the end, our children will live on the brink of hell and our grandchildren will inherit a world that is devoid of prosperity and wellbeing. That is what 'ill-fated' actually means, that is what 'being doomed' is all about.

We'd best buckle up; it's only just beginning.

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

SM503

We'd better buckle up and become resilient real soon

Somebody wrote:

'What if the challenge we face is less "how to save the world?", and more "how do we speed up these processes that are already changing the world? We have the solutions. We just have to implement them.'

This was my response:

"It's not about asking different questions, I'm sorry to say. Please allow me to explain.

First of all: 'we' don't exist, the world community, the 200 countries of the world, they don't exist. It is pointless to point at 'us' as an active agent, as some coherent entity that you can 'address' to do something or ask to stóp doing something. Because we are scattered, fragmented and divided into hundreds of millions of small social groups, that will primarily take care of themselves.

Evolution and natural selection have programmed us with two essential attributes: survival and procreation. We thrive at it. We multiply like crazy, adding 80 million people to the human equation yearly. That will bring us from 8 billion people today to 10 billion in 2050. Each and every one of those new

individuals will want to get rich, healthy, happy and grow old. Nobody, on average and on a global scale, wants to decline or reduce, everybody wants to, at least, keep what they've got, preferably get a little more.

The result? Overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat. Environmental pollution, destruction of the biodiversity and climate change are symptoms of overshoot. Overconsumption is always met with collapse. It's locked into the system. In our case that implies 'suprasystemic collapse': the end of human civilization. Currently there's no globally consorted, coordinated, consolidated effort to mitigate overshoot. None whatsoever.

Look at the Corona pandemic. In 2020, the first year, we reduced global CO2emissions 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 and put our lives on hold. We accepted that fact with our teeth grinding and under a lot of loud protests. And as soon as we could, we bounced back. In 2022 we emitted more greenhouse gasses than ever before. We couldn't wáit to throw ourselves back onto the track of our neoliberal, capitalistic, consumeristic, growth-economic free market.

In order to solve our existential predicament, we need to voluntarily and freely go in total lockdown for another 20 years and only then will we have reached zero emissions! That's the energy equivalent of what it takes to mitigate overshoot, to actually dó something on a global scale.

But look, there's an alternative! One that will also solve all of our problems. If we flip the current population growth of 1% per year to 1% population decline, we'll be at 6 billion people in 2050 (a good start) and 1,3 billion by 2200 (the perfect number).

If neither is an option, we're left with the inevitable: suprasystemic collapse. And we're well underway, because 2023 is the year we passed the 'elbow' of the exponential curve. The atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have entered a state of cascade failure, which is the prelude to suprasystemic collapse.

We'd better buckle up and become resilient real soon, real fast.

SM513

Why we don't have a clue what's coming our way

I read a post about the transition to a world full of electrical vehicles and that Europe should excavate its own minerals to build the billions of batteries required and therefor become more independent from Africa and China.

This was my response:

"If we keep approaching this problem from a neoliberal, capitalistic, consumeristic, growth-economic free market perspective, we will only be going from bad to worse. What is the intelligence behind the current effort to replace all 1,6 billion vehicles on earth by electrical ones?

It baffles me to see that we actually don't realize that we need energy to make the energy transition and that that energy still needs to be provided by fossil fuels. 1,6 billion electric vehicles will require the same infrastructure that we have today and will create the same never ending congestion problems. We don't seem to realize what we actually need to do to mitigate our existential dilemma, which is overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat:

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. Don't you see?

Most people, when they see this 'List of Seven', utter a derogatory snort and go about their business. The key to my provocative approach lies in the comment thereafter: it's the 'energy equivalent' of our efforts to mitigate overshoot. Currently there's no consorted, coordinated, consolidated global effort to actually do something about overshoot.

My 'List of Seven' is deliberately provocative, it's a paradox. Because none of the seven points is realistically executable. The current world population is 8 billion, growing with 1% yearly to 10 billion in 2050. Every one of these new individuals wants to get rich, healthy, happy and grow old. Nobody wants to decline or reduce. Everybody wants to keep at least what they've got, preferably a little bit more. It's simply unsustainable.

If we were to let go of the first six items on the list, the seventh would become even more 'impossible', but would still be a realistic representation (the energy equivalent) of our collective efforts to mitigate overconsumption. Let me underpin this with some concrete facts that are both confrontational as disconcerting.

Please stay with me.

In 2020, the first year of the 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 had to stay indoors, close schools and withhold ourselves from gatherings of fun and culture. We accepted that fact with our teeth grinding, taking to the streets and to the social media to protest our forced collective prison. But as soon as we possibly could, we bounced back. Within two years we emitted more greenhouse gasses than ever before.

Everybody wanted back what they had lost. All turnover, revenue and growth loss had to be compensated 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 that 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 20 years to reach zero emissions! I believe we haven't got a clue about what's coming our way. The atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have entered a state of cascade failure, the prelude to suprasystemic collapse.

The year 2023 is the year we passed the 'elbow' of the exponential curve. It's out of our hands now. We've waited too long, it's too late. From here on out events won't follow a linear but a chaotic path. They imply that events will become unpredictable. Just look what's happening around the world with warming only up to 1,2C! Extreme weather and climate disasters are not only becoming more frequent en intense, but they span complete hemispheres. The

measurements are off the charts (see attached graph) and climate scientists are completely baffled. Because they are 'statistically impossible'. Yet here we are.

It's going to get a whole lot worse and it's not going to get any better if we keep this up. 99,99% of all species in the history of this planet has become extinct. We're the only ones accelerating our own demise. What hubris and arrogance! We pump 150 million tons of CO2-equivalent into the atmosphere every day (!) and the CO2-level is at 420 ppm, rising to 500 ppm in 2050.

And we think EV's are going to save us?

SM519

Agreeing on *DeGrowth* does not avoid societal collapse

Somebody wrote in a post that we're moving fast towards collapse, with the environment, biodiversity and climate change and all, but that we will just transition to a new equilibrium in which we, the human species, we'll have to find our place again.

This was my response:

"I support your frontal confrontation with reality. But maybe you're not taking it far enough. Two thoughts:

A - This is what we actually need to do:

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

This 'List of Seven' represents the energy-equivalent of our collective effort to fix our existential predicament. Currently nothing comes even clóse in terms of a global effort to mitigate ecological overshoot.

B - 99,99% of all species have gone extinct in the history of our planet.

We're the only ones accelerating our demise. We are pushing global warming past 2C towards 3C or 4C. We don't seem to understand what that implies. After collapse, our planet will seek a new equilibrium, for sure, but not necessary to our benefit. Mother earth will be completely indifferent about us creating a toxic atmosphere where the human species, along with countless others, can't survive in the long run. We think it can't happen to us, that we're somehow impervious to extinction. That is perhaps our biggest mistake."

To which I received the following reaction:

"Your assumptions in Part A don't seem to have considered the concept of degrowth. Follow [refers to another person and another internet link] to learn more about how it doesn't lead to poverty but rather wellbeing."

To which I responded:

"That is not the point I am making here. I agree, in theory, with the *DeGrowth* movement and I also agree that overpopulation is not the main cause of overconsumption, although that sounds counter intuitive. Here's what I am saying:

- About 40% of global food production 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.

- The global increase of wellbeing and prosperity has led to the simultaneous global increase of greenhouse gas emissions.

The *DeGrowth* movement is based on a (theoretically sound) concept of a sort of magical Utopia in which we all sing *Kumbaya, my Lord* around the campfire and live (and love) happily together for ever and ever. It's a fairytale, a pipedream. As are all the other theories of mitigating our existential predicament.

Look, I'm not a doomsday preacher. I've done my homework, did the investigative work for two years, read over 300 books and puzzled through countless scientific research papers and published a whole book about it. It's not that we have a lack of thought about the matter. Over the last half century, we have produced countless books, analysis, articles, reports and conferences about the environment, biodiversity and climate.

We know everything there is to know about our problems, we have bent them in every conceivable way, have piled all the solutions on top of each other, with *DeGrowth* as the overarching solution. And still, it's only getting worse. All these international conferences and summits haven't changed one bit about our existential predicament. No binding resolutions, no agreements on penalties, no global program management approach, none of that, nothing whatsoever. Not on a global scale that is. The atmosphere, biosphere, lithosphere, hydrosphere and cryosphere have now entered a state of cascade failure, the prelude to suprasystemic collapse. The jetstream is meandering, the oceans are overheating, acidifying and deoxygenating and the global ocean currents are destabilizing. Those are Earth's Main Management & Control Systems. There's no on/off switch, no reset button, no edit/undo function. Once they go, everything goes.

It's out of our hands now. We've waited too long, it's too late. From here on out the extreme weather and climate disasters will not follow a linear path anymore, but a chaotic one. Events will become totally unpredictable. We can debate *DeGrowth* until we're blue in the face and come out of the debate in full agreement. But that doesn't change the fact that there is no globally coordinated, consolidated or consorted effort to mitigate overshoot that even comes clóse to my 'List of Seven' above.

I find that quite disconcerting, don't you?"

SM521

When an exponential curve goes 'SNAP!'

I saw a post about the 'accelerating development of renewables in our fight with climate change', claiming that exponential curves always start level and at some point, reach the 'elbow' of the curve and suddenly move upwards, almost vertically. It suggested that this will happen in time for us to save us from collapse. 'Don't worry, it's not too late, we can still do something, just wait for the acceleration. Wait. Wait for it...' (I'm paraphrasing just a tad here).

This was my response:

"Are we really that obtuse?

First: I fully agree with the theory here: "[...] if enough pressure builds up then...SNAP! These systems don't shift gradually, because intense pressure has built up behind them, the change comes swifly." But it's not going to be the systems change that's implied here.

If you flip a traditional 'rising' exponential curve across the X-axis, you get the same curve, but one that starts high and suddenly drops to the bottom. Look at all the representations of the consequences of our neoliberal, capitalistic, consumeristic, growth-economic free market: everything we produce shows the same curve. They're all exponential curves on just about any topic of 'progress' of the human species. And yes, they're all going the same way.

If you flip all these curves across the X-axis and combine them together in one 'super-curve', it becomes one exponential curve moving towards suprasystemic collapse, not towards global salvation. This is the curve of overshoot or overconsumption, when a population exceeds the carrying capacity of its habitat (*). Overshoot has been going on for over half a century now and has already entered its acceleration phase.

That implies that the collapse curve has already passed 'the elbow' and is falling down fast, whilst the 'planned climate action curve' is still flatlining. Do you see? Your theory is solid and exponential curves that move up sometimes suggest some kind of 'positive', 'good' or 'desirable' outcome. But they rarely plateau at that 'desirable' level. Rising exponential curves have a tendency to collapse in on themselves, seek a new equilibrium that eliminates the past.

In the long run and on the highest level that's an 'eternal movement' and the history of our planet shows a lot of these movements. But they also lead to mass extinction events, in which prior species do not survive the transition to a new, collapse enforced equilibrium. We are in the sixth mass extinction event (just Google 'Extinction' in combination with 'The Big Five' and you'll see which ones came before us), one that we have only ourselves to blame for. It's an open question how much people will be left to be part of our own post collapse future, if any at all. 99,99% of all species that ever lived on this planet have gone extinct. There's no reason to believe we are going to be some unique exception.

"SNAP!" indeed.

(*) Overshoot or overconsumption: when a population exceeds the carrying capacity of its habitat. Environmental pollution, destruction of the biodiversity

and climate change are symptoms of overshoot. Overconsumption is always met with collapse; it's locked into the system. If you're interested in the concept of overshoot, see Appendix IV.

Epilogue

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

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

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

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

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

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

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

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

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

Bart Flos – Helmond | November 2023 – April 2024.

Appendix I

Blurb of 'Our Inner Limits – On the Unbending Barriers of Being'

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

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

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

- Mr. Luis: 'Go right ahead, sir. As long as I can say what it réally means.'

– Prof. Pels: 'Fine with me. Let's agree that you will keep me on my toes while I put people, our organizations and ultimately the entire human civilization under a magnifying glass.'

– Mr. Luis: 'Whatever you want. But I will defend my position with all my heart and soul."

- Prof. Pels: 'And I will mine. I suggest we at least start at the beginning.'

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

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

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

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

This is the structure of my book:

Chapter 1 | Context

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

PART 1 | PEOPLE AND ORGANIZATION

Chapter 2 | About people, groups and behavior

How the individual influences the small social group and vice versa: 'when you know your small group, you know your organization.'

Chapter 3 | Our organizational dilemmas

How leadership determines corporate culture and that we can learn much more about this by asking 'why-questions'.

Chapter 4 | The concept of maturity

Why organizational maturity is always about soft skills and never about hard skills: is it okay to be middle-mature?

Chapter 5 | The highly mature organization

What we need to do to solve the collaboration paradox and how we can circumvent the definition of insanity.

PART 2 | PEOPLE AND CIVILIZATION

Chapter 6 | Who we are and what we do

Human progress is not a primary goal, but only a side-effect: are we doomed to get extinct?

Chapter 7 | Our big problems

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

Chapter 8 | The climate confrontation

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

Chapter 9 | The highly mature civilization

On the suprasystem 2.0: about *neocology* and *neoconomics* and how to keep your finger tight on the climate pulse.

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

www.demensalsgrens.nl

Appendix III

The scientific method

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

https://en.wikipedia.org/wiki/Scientific method

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

https://en.wikipedia.org/wiki/Scientific theory

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

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

(Source: Wikipedia).

Appendix IV

The concept of overshoot or overconsumption

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

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

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

[Wikipedia Profile]

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

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

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

https://youtu.be/LQTuDttP2Yg

['The Fundamental Issue: Overshoot']

And: https://youtu.be/U3GB191UDiI

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

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

https://youtu.be/o3nCFwhV-9E

['What is a sustainable population?']

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

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

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

Appendix V

Useful links

- 1. <u>https://climateactionaustralia.wordpress.com/2023/10/19/10-reasons-our-civilization-will-soon-collapse/</u>
- 2. https://collapsesurvivalsite.com/reasons-civilization-will-collapse/
- 3. <u>https://insideclimatenews.org/news/11102023/scientists-disagree-about-drivers-of-septembers-temperature-spike/</u>
- 4. <u>https://www.linkedin.com/pulse/why-do-scientists-make-fuss-</u> <u>1%C2%BAc-2%C2%BAc-increase-average-global-maxton</u>
- 5. <u>https://journals.sagepub.com/doi/10.1177/00368504231201372</u> [Scientific study on overshoot]
- 6. <u>https://youtu.be/23nDxPSIoAw?si=0jcO51Eg5bwsDeCI</u> [Jonathan Pie: The World's End]
- 7. <u>https://climatechangetracker.org/</u>
- 8. https://climatechangetracker.org/igcc
- 9. <u>https://youtu.be/t2C6NfFIK_g</u> [The Anthropocene: where are we going?]

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- <u>https://youtu.be/pNYp6oc37ds</u> [The Newsroom: The Climate Change Interview]
- 11. <u>https://www.motherjones.com/politics/2014/11/climate-desk-fact-checks-aaron-sorkins-climate-science-newsroom/</u>
- 12. <u>https://youtu.be/ww47bR86wSc</u> [Bonhoeffer's Theory of Stupidity]
- 13. <u>https://youtu.be/8erFXZmp7fo</u> [Arctic heat is coming our way]
- 14. <u>https://youtu.be/Qfo3U04rqGQ</u> [31 logical fallacies in 8 minutes]
- 15. <u>https://www.newyorker.com/culture/cultural-comment/what-if-we-stopped-pretending</u>
- 16. <u>https://climatereanalyzer.org/clim/sst_daily/</u>
- 17. <u>https://youtu.be/ALduFqONN58</u> [I looked at the recent bird flu data, and now I'm really scared]
- <u>https://www-bbc-co-</u> <u>uk.cdn.ampproject.org/c/s/www.bbc.co.uk/news/science-environment-</u> <u>65602293.amp</u> [About 1,5C of Global Warming]
- 19. <u>https://arstechnica.com/science/2023/04/an-ominous-heating-event-is-unfolding-in-the-oceans/</u>
- 20. https://showyourstripes.info/c/ocean/arcticocean/baffinbay

- 21. <u>https://www-bbc-co-</u> <u>uk.cdn.ampproject.org/c/s/www.bbc.co.uk/news/science-environment-</u> 65339934.amp [About the El Niño / La Niña phenomenon]
- 22. <u>https://thebulletin-</u> org.cdn.ampproject.org/c/s/thebulletin.org/2023/04/faster-thanforecast-climate-impacts-trigger-tipping-points-in-the-earthsystem/amp/
- 23. <u>https://vimeo.com/809258916/92b420d98a</u> [The dangers of AI (duo presentation)]
- 24. <u>https://gml.noaa.gov/ccgg/trends/</u> [On Greenhouse Gas Emissions]
- 25. <u>http://arctic-news.blogspot.com/2023/04/ipcc-keeps-downplaying-the-</u> <u>danger-even-as-reality-strikes.html?m=1</u>
- 26. <u>http://arctic-news.blogspot.com/2023/03/sea-surface-temperature-at-</u> <u>record-high.html?m=1</u> [Considering this, a Climate Emergency should be declared]
- 27. <u>https://www-bbc-</u> <u>com.cdn.ampproject.org/c/s/www.bbc.com/news/world-australia-</u> <u>65120327.amp</u> [Antarctic oceans currently heading for collapse]
- 28. https://indica.medium.com/how-precisely-were-fucked-cad1f0e5b068
- 29. <u>https://youtu.be/5dZ_lvDgevk</u> [Documentary on AI (2019)]

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

- 31. https://xkcd.com/1732/ [3D Graph Global Warming]
- 32. <u>https://youtu.be/LKO7koKh7Nw</u> [A Life-or-Death Battle | Fight for Your Life | FULL EPISODE]
- <u>https://youtu.be/lIEu-OW9_YA</u> [Tipping point: immanent systemic environmental collapse]
- 34. https://youtu.be/x1SgmFaoro4 [NASA | A Year in the Life of Earth's CO2]
- 35. <u>https://youtu.be/nfv7sIL2uKo</u> [Al Gore on the World Economic Forum (WEF) about climate change]
- <u>https://www.climate.gov/news-features/understanding-</u> <u>climate/understanding-arctic-polar-vortex</u>

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

The Big Problem: Overconsumption

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