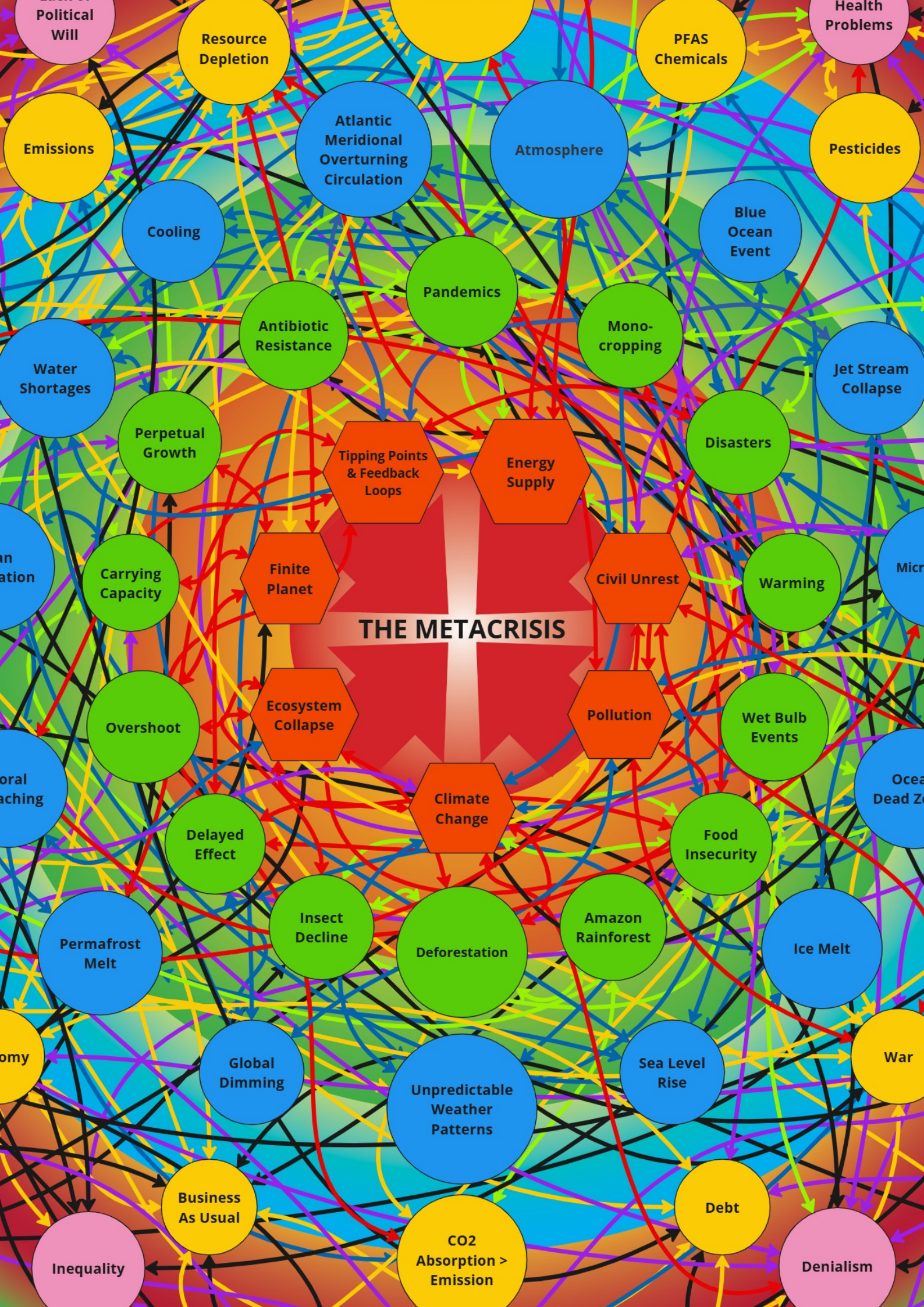
Lack of Political Will
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Setting the Scene: The State of the Planet

At the time of writing (mid 2024), the average temperature of the past twelve months has been 1.6°C warmer than the pre-industrial levels (defined as being the average during 1850–1900). According to the IPCC, we are projected to hit 1.5°C by 2040, so we're already looking at being around fifteen years ahead of schedule. Not long after putting this document together, Earth experienced the four hottest days ever recorded, all in the space of a single week.

There's a delay between the emissions and the effects that they cause, as much as 20 years, so potentially the warming that we are seeing today could be from emissions we produced as far back as 2005. At that point the CO_2 in the atmosphere was at 378ppm. Now we're about to hit 428ppm. Even if we slashed all emissions right now to zero, we will continue to warm, and it could still be several decades before we experience the full effect of 428ppm CO_2.

Enter global dimming. The pollution we emit both warms and simultaneously reflects energy from the sun, thanks to the reflective nature of particulates such as sulphur dioxide. In effect it is cooling us as well. This means that reducing forms of emissions and pollution can trigger an increase in warming, which is most likely why we are already seeing 1.6°C, as a result of the regulations which came into effect for shipping emissions in 2020.

Warming accelerates and crosses tipping points, which in turn accelerate warming, and then we have a feedback loop. There are two major tipping points which we are likely to cross much sooner than expected, which will trigger other tipping points and feedback loops.

Blue Ocean Event: The arctic ice is reducing year upon year thanks to the warming atmosphere. Normally the ice absorbs energy from the sun, and reflects it back into space, buffering us from warming. At the point we no longer have ice in the arctic, we suddenly start getting a lot more heat and energy being absorbed into the oceans, land, and atmosphere. The same amount of energy it takes to melt ice, can raise the temperature of water to 85°C.

Atlantic Meridional Overturning Circulation: Increased water from a Blue Ocean Event, dilutes and disrupts the ocean currents that keep major weather patterns in circulation. This will result in stagnant weather, heat-domes sitting over land and sea, severe floods, drastic changes to the temperatures around the planet, and disruption to food supply.

Oceans have absorbed 90% of the CO_2 and heat between 1971 and 2018, which is the equivalent of 25 billion atomic bombs that were dropped on Hiroshima. When you think of warming by 1.5°C, that might not sound so bad, but remember that this is an average of the global temperature. The Arctic is warming at a rate four times faster than the rest of the planet, and in 2022, Antarctica measured a temperature 38.5°C warmer than the seasonal average.

Despite growth in renewable energy sources, our fossil fuel consumption continues to rise, as do our demands for energy. Jevons Paradox states that as technological progress increases the efficiency with which a resource is used, the falling cost results in increases in demand, rather than reduction. Basically renewable energy sources are not replacing fossil fuel sources, and the additional power supplied, is fuelling growth of our system.

Regardless of our political views, or spiritual values, or financial assets, or any other way that we separate ourselves from one another, we are all going to be affected by this. It's in everyone's interests, it's in the earth's interests, that we pay attention to the Metacrisis, and do everything we can to "extend the glide". To soften our landing.

With all of this in mind, let's examine the broader issues we face. Climate change is a huge part of the problem we face, but it is not the singular nor most important thing we face.

The Metacrisis

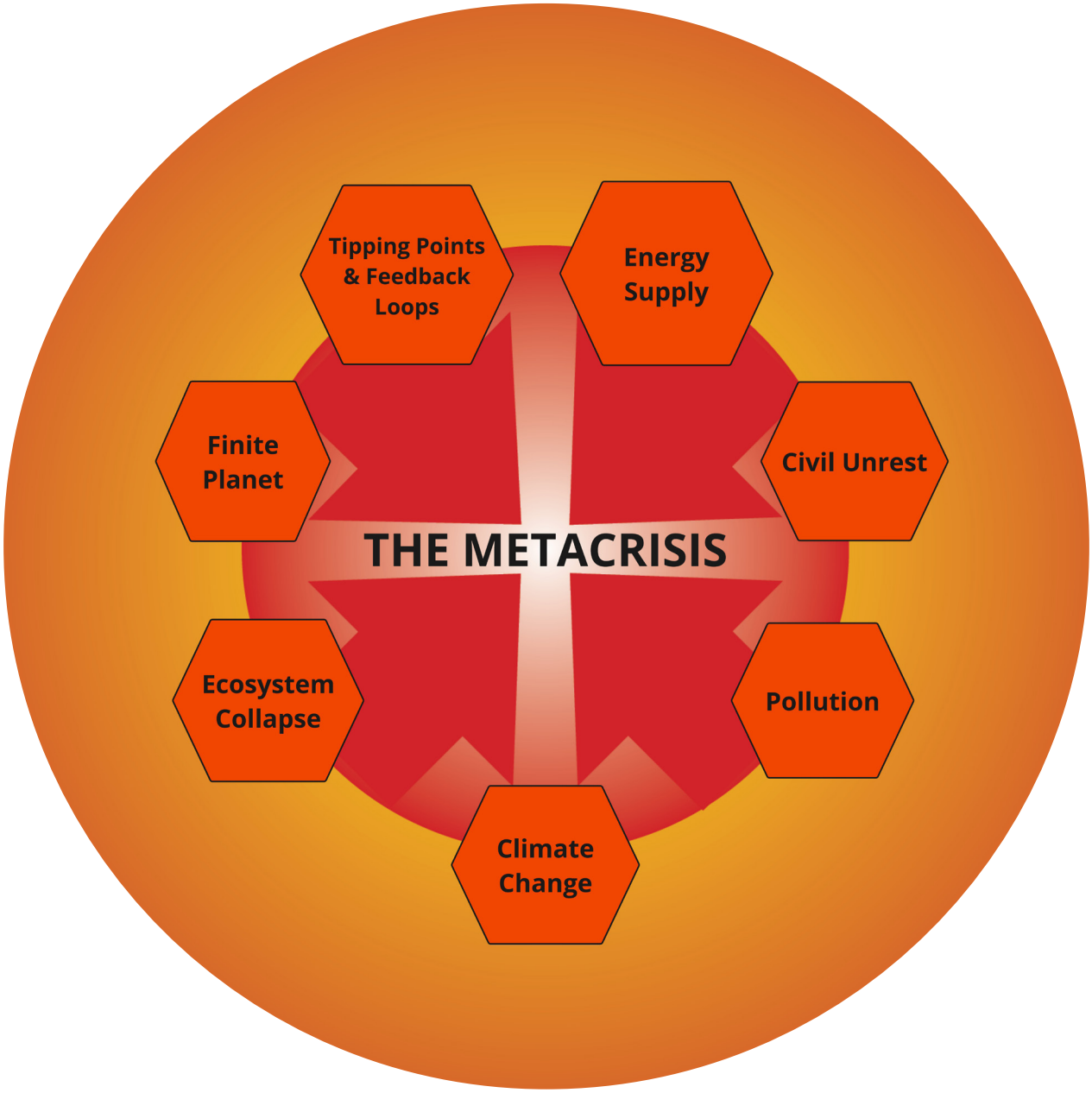
So what is the Metacrisis? It's a complex topic that encompasses climate change, geopolitical turmoil, declining infrastructure, energy supply, food and water sources, even psychology, and that's really only scratching the surface. The term is relatively interchangeable with a number of other names such as: Collapse, the Polycrisis, the Great Simplification, but ultimately it's all a matter of semantics, and the process/final destination itself remains the same. Jonathan Rowson argues that the term Metacrisis is better suited than Polycrisis, as the latter doesn't capture elements such as consciousness, emotion or "meaning", whereas the term Metacrisis allows us to look both within and beyond.

This is an attempt to find a way of visually representing some of the many and various factors that contribute to the Metacrisis. As a tool, this could be a good way to get people to start thinking about the interconnectedness of topics that they previously hadn't considered, and hopefully think more critically about the ramifications of everyday choices that we make, and what we could be doing better.

Working with just over 80 headings, I have grouped them roughly into topical areas, although some factors were hard to pin to a central topic. After the first image which has the factors that jumped out at me as the "Core Underlying Problems", the expanding rings of content aren't in any particular sequence, as everything else is of relatively equal importance. These expanding rings are: "Environment", "Water/Atmosphere", "Industry", "People", and "Miscellaneous". It's not an exhaustive list, but it does the job of collating information together. Some of the headings are in larger circles, simply so I could fit the text in. Looking at all this, you should feel a degree of anxiety, which is perfectly healthy. Daniel Schmachtenberger puts it like this:

"If you aren't outraged, you aren't paying attention. If you aren't overwhelmed by the beauty of life, you aren't paying attention. It's only because life is beautiful that you should be outraged that it's not being respected, but if you're only outraged, then you are not connected with what is deeper than the outrage, which is the love of life. If you're outraged all the time, then you're not honouring life itself."

The two go hand in hand, you can't feel one without acknowledging the other. If you are feeling the pain of the world, your survival instincts are kicking in, which means you are honouring the inherent connection you share with the whole of life. This is a good indication that you are alive and feeling the extent of what it means to be alive right now. Please take the time to look and think about these myriad problems, and remember, it is ok to take a break. I've tried to provide a good link for each topic so you have an immediate starting point for diving in.



ORANGE: CORE UNDERLYING PROBLEMS

Civil Unrest:
Food, water, power, and medicinal supplies will suffer shortages, and supply chain disruptions will occur more frequently. Increased migration, fascism and finger pointing can lead to disruption and protests. As the severity of the cascading issues we face begins to sink in for people, there will be increasing unrest and frustration at the situation and future we face. Just think back to how people behaved when they perceived toilet paper shortages during the pandemic.
https://www.visionofhumanity.org/civil-unrest-on-the-rise/

Climate Change:
Climate change is an umbrella term which encompasses the long-term change in the average weather patterns that have come to define Earth's local, regional and global climates. CO_2 levels are increasing at a rate that is ten times faster than at any point in the last 50,000 years, suffice to say, this is not a normal state of climate we are now in.
https://science.nasa.gov/climate-change/what-is-climate-change/

Ecosystem Collapse:
We depend on (and take for granted) our natural environments such as forests, oceans, fresh water, stable climates, and biodiversity. Unfortunately they are being destroyed and damaged faster than they can repair themselves. Ecosystems have a certain level of resilience, but beyond a certain threshold or tipping point, sudden and radical disruption can occur, leading to ecosystem collapse. When soil quality, freshwater supply, and biodiversity diminish drastically, agricultural capacity plummets, and daily human living conditions deteriorate.
https://globalchallenges.org/global-risks/ecological-collapse/

Energy Supply:
The world lacks safe, low-carbon, and cheap large-scale energy alternatives to fossil fuels. Our energy consumption only continues to rise, so even though renewable sources are increasing, our consumption outpaces this uptick. As extreme temperatures increase, the power grids come under increasing strain to meet energy demands. Until we scale up our alternatives, the world will continue to face energy shortages.
https://www.worldenergy.org/publications/entry/world-energy-issues-monitor-2024

Finite Planet:
While some ores, minerals, and raw resources do regenerate over time (multiple thousands of years), we cannot endlessly grow and expand without respecting nature's limit on our finite planet. Growth for the sake of growth can only continue for a time until it reaches natural limitations. David Attenborough says "someone who believes in infinite growth is either a madman or an economist".
https://news.mongabay.com/2013/10/david-attenborough-someone-who-believes-in-infinite-growth-is-either-a-madman-or-an-economist/

Pollution:
The more we over-consume, the more pollution we release into the environment, including microplastics, forever chemicals (or PFAS), groundwater contamination, and air pollution. Poisoning our environment means we're not only poisoning other animals, but we're also poisoning ourselves, with a myriad of health problems linked to harmful pollutants.
https://www.oecd.org/en/topics/pollution.html
https://www.theguardian.com/world/2023/mar/25/like-youre-in-a-horror-movie-pollution-leaves-new-zealand-wetlands-irreversibly-damaged

Tipping Points & Feedback Loops:
These are thresholds beyond which the damage we cause to the environment sets off chain reactions of reinforcing damage. These can trigger feedback loops, further intensifying the damage and moving outside of our capacity as humans to control them. There are at least 14 major tipping points identified, of which 9 are now theorised to have tipped over their thresholds.
https://theweek.com/environment/climate-tipping-points-un-report

GREEN: ENVIRONMENT

Amazon Rainforest:
The Amazon's sheer volume of trees makes it one of the world's largest carbon sinks, with an estimated 150-billion-tonnes of carbon stored, this is the equivalent of more than 10 years' worth of global fossil fuel emissions. Industries that deforest, clear areas by setting fires, which rapidly release stored carbon into the atmosphere, and any trees cut but left unburned, decompose, also releasing their carbon. The fires help to explain why parts of the Amazon forest now emit more CO_2 than they absorb.
https://www.scientificamerican.com/article/why-is-the-amazon-so-important-for-climate-change1/

Antibiotic Resistance:
It is estimated that two-thirds of all antibiotics are used on farm animals. Rising antimicrobial resistance has been documented over the past two decades, and to varying degrees, bacteria causing common infections have developed resistance to each new antibiotic. If our antibiotics no longer work, we face some serious problems in food and the health sectors.
https://health.clevelandclinic.org/when-antibiotics-stop-working-whats-next

Carrying Capacity:
This is the ability of a given environment, or ecosystem, to support a species over the long term by providing stocks and flows of resources such as food and water, and by safely absorbing accumulations of wastes. We've surpassed our carrying capacity and sustained this extra capacity through the exploitation of fossil fuels.
https://biologydictionary.net/carrying-capacity/

Deforestation:
Humans continue to sacrifice the long-term benefits of standing trees for short-term gain of fuel, and materials for manufacturing and construction. We need trees for a variety of reasons, not least of which is that they absorb the carbon dioxide we exhale and the heat-trapping greenhouse gases that human activities emit. Through continued deforestation we also condense wildlife into smaller pockets of habitat, which increases the risk of zoonotic diseases mutating and causing pandemics.
https://www.rainforest-alliance.org/insights/what-is-the-relationship-between-deforestation-and-climate-change/

Delayed Effect:
There is a lag between the emission of CO_2, and the warming effect it causes (depending on size). So the global warming effects we are experiencing today, can be from emissions released up to several decades ago. If we immediately stop our CO_2 emissions today, we will continue to warm for several more decades.
https://earth.org/data_visualization/the-time-lag-of-climate-change/

Disasters:
Natural disasters are occurring nearly five times as often as they were in the 1970s, with both developed and developing countries bearing the burden of repeated floods, droughts and temperature extremes. Just how many times can a society come back to rebuild or help others with its surpluses and redundancies? If the frequency of disasters increases in succession then it will be harder and harder to render aid, especially if we are already dealing with active disasters or the aftermath thereof.
https://unfccc.int/news/wmo-report-the-escalating-impacts-of-climate-related-natural-disasters

Food Insecurity:
We've relied on the weather patterns being predictable, i.e. stable seasons, so that we can grow our crops, but they are already beginning to be unpredictable. Unstable weather causes crop failures, and food chain disruption. In addition to changing weather patterns, modern agriculture requires massive amounts of artificial fertiliser to produce its yields which has damaging effects on the land, soil, and waterways.
https://www.weforum.org/agenda/2023/07/climate-change-is-accelerating-the-global-food-crisis-we-must-act-now-to-protect-the-most-vulnerable/

Insect Decline:
Insects are the structural and functional base of many of the world's ecosystems, and play key roles, from aerating the soil to pollination and recycling of nutrients. Unfortunately habitat loss through urbanisation and deforestation, pesticides and climate change are killing them off worldwide, which, in turn, threatens humans. Research has shown that insect populations fell by as much as 45% in the last 40 years.
https://www.bbc.com/news/science-environment-52399373

Monocropping:
This is the practice of growing a single crop year after year on the same land. In a biodiverse ecosystem, a threat to one crop may not be a threat to others. But when fields contain just one crop, from genetically identical stock, every single plant is equally vulnerable to threat. Approximately 2 billion people globally are affected by micronutrient deficiencies, much of which is attributed to consuming a monotonous diet of nutrient deficient staple crops, grown through monocropping.
https://foodrevolution.org/blog/monocropping-monoculture/

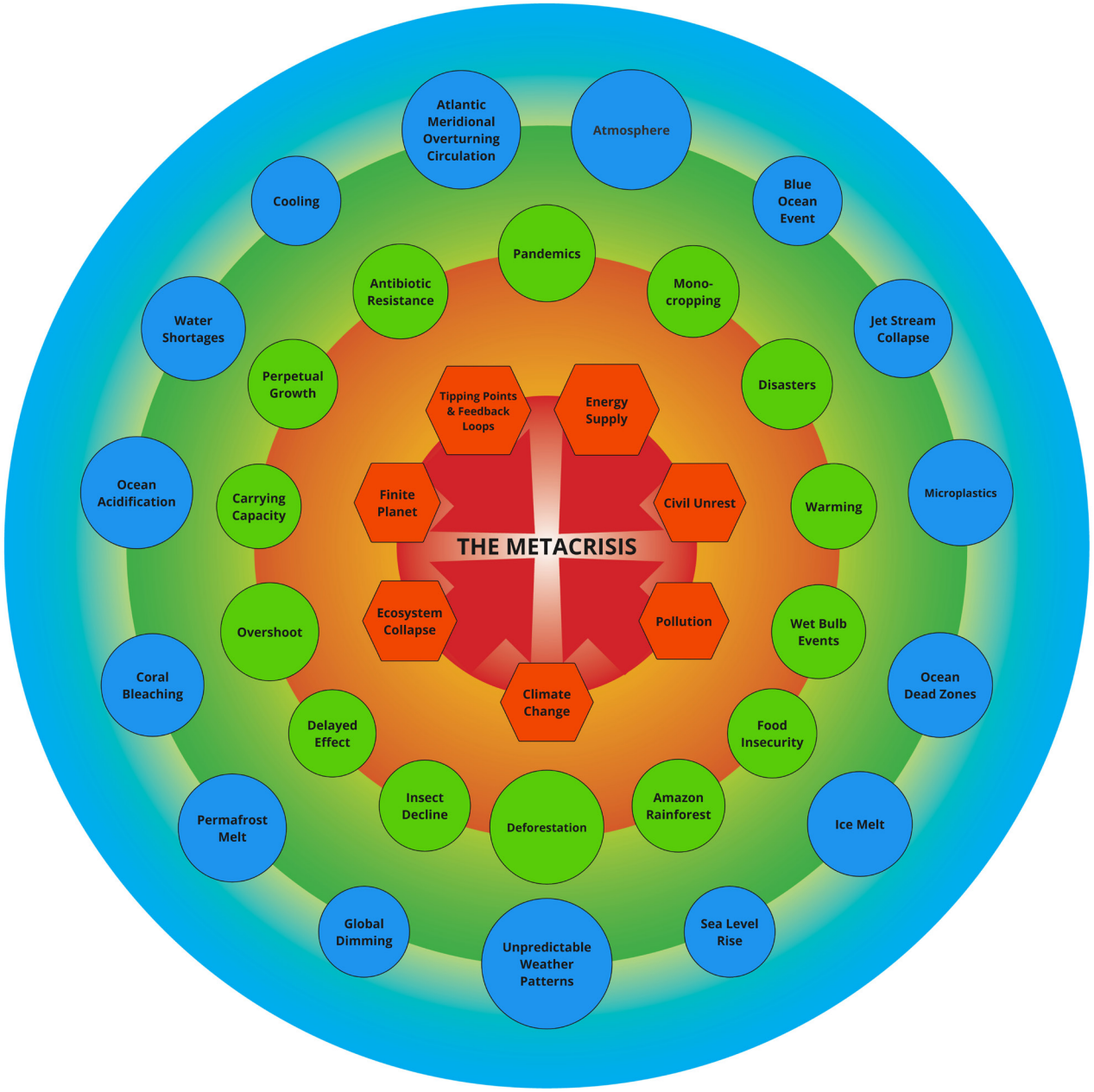
Overshoot:
We can calculate the theoretical date at which humanity's demand on nature exceeds what can be regenerated and renewed in a year. In 2024, our global earth day, at which point we have theoretically used our renewable resources, falls on August 1st, which means that for five months of the year we are using resources faster than they can be renewed. We are essentially borrowing from our future selves.
https://overshoot.footprintnetwork.org/about-earth-overshoot-day/

Pandemics:
Large pandemics like COVID-19 and the Spanish flu are increasingly likely due to habitat destruction, factory farming, and increasing antibiotic resistance. Management of future outbreaks will be crucial, yet the growing distrust that took root during COVID-19 will no doubt complicate efforts to minimise global impacts, when we once again deal with a pandemic.
https://www.weforum.org/agenda/2020/11/covid-19-pandemics-nature-scientists/
https://www.controlrisks.com/our-thinking/insights/global-drivers-sustain-high-likelihood-of-another-pandemic

Perpetual Growth:
Economic growth is required to be exponential, that is to say, the size of the economy must double within a fixed period, and yet this drives a corresponding increase in the material footprint required to do so. Perpetual growth of the economy, and moreover society, is at odds with a finite planet.
https://www.scientificamerican.com/article/the-delusion-of-infinite-economic-growth/

Warming:
CO_2 (along with other gases such as methane) allows sunlight to pass through our atmosphere to earth as visible light. It then gets converted to infrared light which unfortunately cannot pass through the CO_2 in the same way. This solar energy is then trapped on earth, causing warming.
https://oizom.com/how-air-pollution-causes-global-warming/
https://news.climate.columbia.edu/2021/02/25/carbon-dioxide-cause-global-warming/

Wet Bulb Events:
Wet bulb temperatures are theoretical measurements that combine temperature and humidity into one value. This is essentially the temperature at which water stops evaporating from a wet thermometer bulb, and if it can no longer evaporate, it can no longer cool. Increasing moisture in the atmosphere, and increasing temperatures means increasing likelihood of wet bulb events affecting broader areas and populations. Even healthy people cannot regulate their temperature under these circumstances, resulting in serious health problems.
https://www.nbcnews.com/science/science-news/wet-bulb-temperature-weather-average-climate-human-heat-wave-rcna27478



BLUE: WATER/ATMOSPHERE

Atlantic Meridional Overturning Circulation (AMOC):
This is the vital ocean current that circulates the planet. It carries warm ocean water northwards towards the pole where it cools and sinks, driving the Atlantic's currents. An influx of fresh water from the accelerating melting of Greenland's ice cap and other sources is making the ocean current increasingly unstable. A collapse of the AMOC would have disastrous consequences around the world, severely disrupting the weather patterns that billions of people depend on.
https://www.sciencealert.com/its-confirmed-a-major-atlantic-ocean-current-is-verging-on-collapse

Blue Ocean Event:
Arctic sea ice is a key way that the planet cools itself. As long as there is shiny ice, sunlight gets reflected back into space (the albedo effect). Unfortunately it seems highly likely that we will encounter years where there is no ice reforming, which means the Arctic Ocean will absorb massive amounts of heat and energy. The heat needed to melt one gram of 0°C ice into 0°C water is the same amount of heat needed to heat one gram of 0°C water to 81°C. So suddenly that's a lot of heat and energy going into our environment.
https://soapboxie.com/social-issues/What-Is-a-Blue-Ocean-Event-and-How-Will-It-Impact-Global-Climate

Permafrost Melt:
Lying underneath 15% of the northern hemisphere, permafrost consists of accumulating dead biomass that remains frozen, never having had a chance to release all its carbon. Unlike ice, permafrost doesn't 'melt' once temperatures rise above 0°C. It falls apart and if the organic material decomposes in an environment where there's oxygen, then carbon dioxide or methane is released. Thawing permafrost acts as a positive feedback to warming, releasing vast emissions into the atmosphere. Permafrost covers a quarter of the Northern Hemisphere's land and stores around 1.5 trillion metric tons of organic carbon, twice as much as Earth's atmosphere currently holds.
https://climateandnature.org.nz/climate-wiki/evidence/permafrost/

Cooling:
Climate change doesn't simply mean everywhere gets warmer, in fact, if something like the AMOC does eventually collapse, models suggest the Northern Hemisphere will rapidly cool, driving up power consumption, and affecting food crops. In addition to this, most of the atmosphere above the blanket of air close to the Earth's surface is becoming dramatically colder, which could potentially affect the safety of orbiting satellites, destabilise the ozone layer, and even result in sudden and unanticipated turmoil on our weather systems below.
https://e360.yale.edu/features/climate-change-upper-atmosphere-cooling

Coral Bleaching:
High sea temperatures result in coral bleaching events, which is when the coral expels the microscopic algae that live within them, and they both perish. Coral bleaching matters because once these corals die, reefs rarely come back, and with fewer and fewer corals surviving, entire reef ecosystems, on which people and wildlife depend, can disappear. Bleached coral also compounds the overfishing crisis by removing links in the food web and depriving numerous species of a habitat to spawn and develop.
https://www.npr.org/2024/04/17/1245085914/coral-reefs-bleaching-climate-change-algae

Global Dimming:
Some forms of air pollution e.g. aerosols, can significantly reduce the amount of sunlight reaching Earth's surface, thereby lowering temperatures. So ironically this pollution both warms and buffers us from warming. This masking effect is estimated to be suppressing our warming by more than a degree (C), and if we reduce the aerosols, like we did with regulating the international shipping industries emissions of sulphur dioxide in 2020, we inadvertently stop masking our warming.
https://insideclimatenews.org/news/15092021/global-warming-james-hansen-aerosols/

Ice Melt:
The ice sheets in the North and South hemispheres are now following the worst-case climate warming scenarios set out by the Intergovernmental Panel on Climate Change. Sea-level rise on this scale will have very serious impacts on coastal communities, the additional fresh water in our global system will affect and slow ocean currents, there will be less fresh water available for communities, and there will be an increase of moisture content in the atmosphere which will have severe consequences. Not to mention that a reduction in reflective ice means more heat and energy being absorbed by the planet.
https://www.britannica.com/science/global-warming/Ice-melt-and-sea-level-rise
https://www.weforum.org/agenda/2021/01/global-ice-loss-climate-change-environment-melting-global-warming/

Jet Stream Collapse:
The powerful wind patterns in the atmosphere that steer the weather systems in the Northern hemisphere. As this becomes unstable, it causes weather stagnation such as heat domes and more frequent droughts, floods, and wildfires.
https://www.livescience.com/planet-earth/gulf-stream-weakening-now-99-certain-and-ramifications-will-be-global

Microplastics:
Microplastics are now found in the food we eat, the water we drink, in the deepest parts of the oceans, and on top of the highest mountains. They have also been found in every single human placenta tested, as well as sexual tissue. Plastics can take hundreds or thousands of years to decompose, and in the meantime cause problems in the environment and living creatures. The degree and impacts of health problems are still being studied.
https://www.sciencenews.org/article/microplastics-human-bodies-health-risks

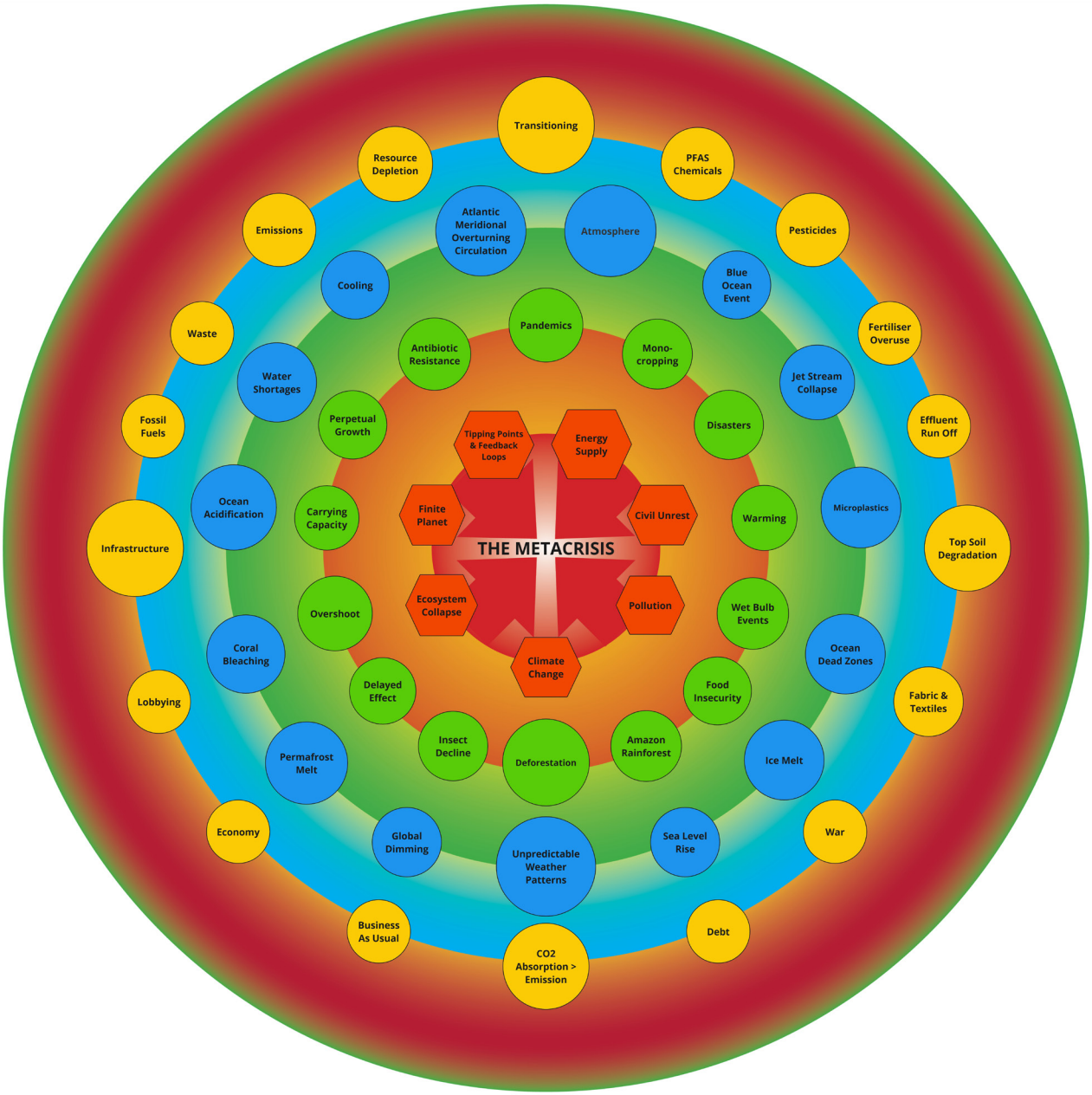
Ocean Acidification:
Oceans are the largest single carbon sink in the world, and absorb massive amounts of heat. However, the more CO_2 they absorb, the more acidic they become, and in turn the less CO_2 they can then absorb. The acidity also has devastating effects on marine life causing disruption to food chains. The oceans have absorbed around 93% of the increased global temperature.
https://www.noaa.gov/ocean-acidification-high-co2-world-dangerous-waters-ahead

Ocean Dead Zones:
Ocean dead zones are caused by increasing temperatures of ocean water, in tandem with our agricultural practices. Eutrophication is what happens when a body of water gets too many nutrients, such as phosphorus and nitrogen (in runoff from excess fertilising or excretion from livestock), and the algae and microorganisms have massive population blooms. These cause hypoxic zones where there is no oxygen, and so no marine life can survive.
https://www.treehugger.com/what-are-ocean-dead-zones-5202668

Sea Level Rise:
Warming climate causes ice to melt, causing a rise in sea level, affecting coastal communities, and turning what used to be "a one in a hundred year flood" into disasters that occur every couple of decades. Warmer ocean water also has thermal expansion, so it takes up more space, raising sea levels, and killing sea life. The rate of ocean surface warming around New Zealand has outstripped the global average twofold over the past decade, with the Chatham Rise, three times warmer.
https://www.australiangeographic.com.au/topics/science-environment/2024/01/how-rising-sea-levels-will-affect-our-coastal-cities-and-towns/

Unpredictable Weather Patterns:
Widespread changes in weather patterns, along with increased frequency and severity of extreme weather events are direct consequences of global climate change. These departures from old norms can bring storms, droughts, heatwaves and wildfire conditions beyond what our infrastructure has been designed to withstand, what people have come to expect, and what our food systems can tolerate.
https://sustainability.stanford.edu/news/climate-chaos-why-warming-makes-weather-less-predictable

Water Shortages:
There is a finite amount of freshwater on earth, and extreme weather events are making this water more scarce, more unreliable, more polluted, or all three. Impacts throughout the water cycle threaten sustainable development, biodiversity, and people's access to water and sanitation. On top of this, agriculture relies on vast quantities of water, impinging on local communities' supply, and even technological developments such as AI are beginning to draw from our limited water supplies.
https://education.nationalgeographic.org/resource/how-climate-change-impacts-water-access/



YELLOW: INDUSTRY

Business As Usual:
This is the scenario where we don't really make any meaningful changes to the way society operates or adjust our lifestyles to accommodate for climate change. We've been largely paying lip service, talking about reducing emissions, setting targets for reductions or phasing in/out new plans, but ultimately doing very little. Despite increasing renewable energy sources, our consumption of fossil fuels is higher than ever, and our energy demands are tipped to rise at a faster rate over the next few years, as are our emissions. With business as usual, we're looking at a temperature increase of at least 5°C.
https://www.unep.org/news-and-stories/story/business-usual-could-lead-catastrophic-global-sea-level-rise-says-new-study

CO_2 Absorption > Emission:
Rising heat and deforestation will cause parts of the Amazon rainforest to become carbon sources, not sinks. Forests that have been planted to capture and offset emissions are unfortunately at increasing risk of wildfires. The ocean's capacity to be a carbon sink is finite and decreases as it warms.
https://www.bbc.com/news/science-environment-57839364

Debt:
As I put this document together, global debt is a whopping $346 trillion, an amount almost triple the size of the global economy and one that will ultimately exact a heavy toll on their populations. Pursuing perpetual growth in combination with borrowing more and more money, in tandem with interest rates, means that the global economy essentially grows by borrowing. It is a house of cards where the foundation is on very shaky ground, and we are definitely at risk of another financial crisis, one that could make the Great Depression look like a bounce-castle of fun by comparison.
https://edition.cnn.com/2024/07/02/economy/global-debt-crisis/index.html

Economy:
Based on endless growth, every year Gross Domestic Product (GDP) must be better than last year. Every quarter's profits must be better than the last one. Everyone is laser-focused on growth, everything is monetised, and money is the power that sets all the rules. We seem to think that our economy operates independently from the environment, not realising that without a planet that supports human life, the economy disappears. The economy has decoupled from reality.
https://theconversation.com/gdp-ignores-the-environment-why-its-time-for-a-more-sustainable-growth-metric-170820

Effluent Run Off:
Many of our rivers, lakes, and groundwaters have unnaturally high levels of nutrients, chemicals, disease-causing pathogens, and sediment. This ultimately culminates in water that is unsafe for drinking, recreation, food gathering, or cultural activities. In New Zealand we have concerning levels of nitrates in 60% of surface level and groundwater samples, at a quantity that is almost twice what is considered a healthy level, and is linked with a notable increase in cancer.
https://www.fishandgame.org.nz/environment/news/canterbury-water-testing-raises-health-concerns/

Emissions:
We generate most of our energy through the combustion of fossil fuels. When burned, CO_2 is released. All industrial machinery runs on diesel (ships, tractors, trucks, mining), natural gas can be burned to generate electricity, and coal is used in refineries to produce metals. Of course there are other sources of, and types of emissions, such as methane, sulphur oxide, and nitrous dioxide.
https://ourworldindata.org/greenhouse-gas-emissions

Fabric & Textiles:
The fashion industry is the second biggest consumer of water, and is responsible for about 10% of global carbon emissions, which is more than all international flights and maritime shipping combined. It dries up water sources, pollutes rivers and streams, and as much as 85% of all textiles go to dumps each year. Even washing clothes releases 500,000 tons of microfibres into the ocean each year, the equivalent of 50 billion plastic bottles. And yet, this industry is driven by consumer demand.
https://earth.org/fast-fashions-detrimental-effect-on-the-environment/

Fertiliser Overuse:
Nutrient pollution, predominantly in the form of nitrogen and phosphorus, is one of the most significant by-products of agricultural activity. Current agricultural models pour more fertiliser onto the land than can be absorbed by the plants, which then runs off into waterways, disrupting natural processes of growth and decay. This is a leading contributor to the growing number and size of dead zones in the oceans.
https://www.environmentguide.org.nz/activities/agriculture/environmental-impacts-of-agriculture/

Fossil Fuels:
We're heavily dependent on fossil fuels such as crude oil, natural gas, and coal in order to enable everything in our modern civilization. From plastics to electricity to food production, whether directly or indirectly, fossil fuels provide the foundation for our modern lifestyle, but there are finite amounts of them. Even if we transition something like energy supply or transportation, away from using fossil fuels, about 50% of a barrel of oil will continue to be used for other purposes such as industrial equipment, heating, paints, plastics, rubbers, lipsticks, waxes etc.
https://www.breakthroughfuel.com/blog/crude-oil-barrel/

Infrastructure:
Population growth and migration, urbanisation, and climate change put further strains on the assets required to deliver clean water, dispose of wastewater, provide needed electricity, and maintain functional road networks. Increasingly ageing infrastructure brings with it the risk of potential failure and poor environmental compliance, and corner cutting and short term fixes, do nothing to actually address problems in the long run.
https://www.rnz.co.nz/programmes/the-detail/story/2018944359/new-zealand-s-failing-government-infrastructure

Lobbying:
Lobbyists are professionals who are hired by a special interest group to represent their interests to governments, usually the lobbying is backed by money and corporations. The means by which government officials leave office to become lobbyists, and by which lobbyists become government officials, presents clear conflict of interest problems for modern democracies, which unfortunately go largely unrecognised, unaccounted for and unpoliced.
https://www.rnz.co.nz/news/in-depth/501982/revolving-door-for-lobbyists-can-result-in-unfair-access-justice-ministry

Pesticides:
Pesticide use continues to go up, highly toxic pesticides remain in use, and crops are being treated more frequently with a greater variety of pesticides than ever before. Scientists increasingly believe there is no safe lower dose for human exposure. Many pesticides are endocrine disruptors, which can affect everything from the thyroid gland to fertility, even at trace amounts. Long term pesticide exposure has been linked to cancers, such as leukaemia, and certain lymphoma, as well as asthma, depression, attention deficit and hyperactivity disorder (ADHD) and the development of neurodegenerative diseases' such as Parkinson's disease.
https://www.who.int/news-room/fact-sheets/detail/pesticide-residues-in-food

PFAS Chemicals:
Per- and poly-fluoroalkyl substances (PFAS) are widely used, long lasting chemicals, the components of which break down very slowly over time. Due to their widespread use and persistence in the environment, many PFAS chemicals are found in the blood of people and animals. They are also present at low levels in a broad variety of food products, as well as freshwater, air, fish, and soil. They have been found deep in the ocean, on top of mountains, even in the antarctic. Research suggests they are likely to be carcinogenic, with "no safe level of exposure".
https://www.atsdr.cdc.gov/pfas/about/health-effects.html

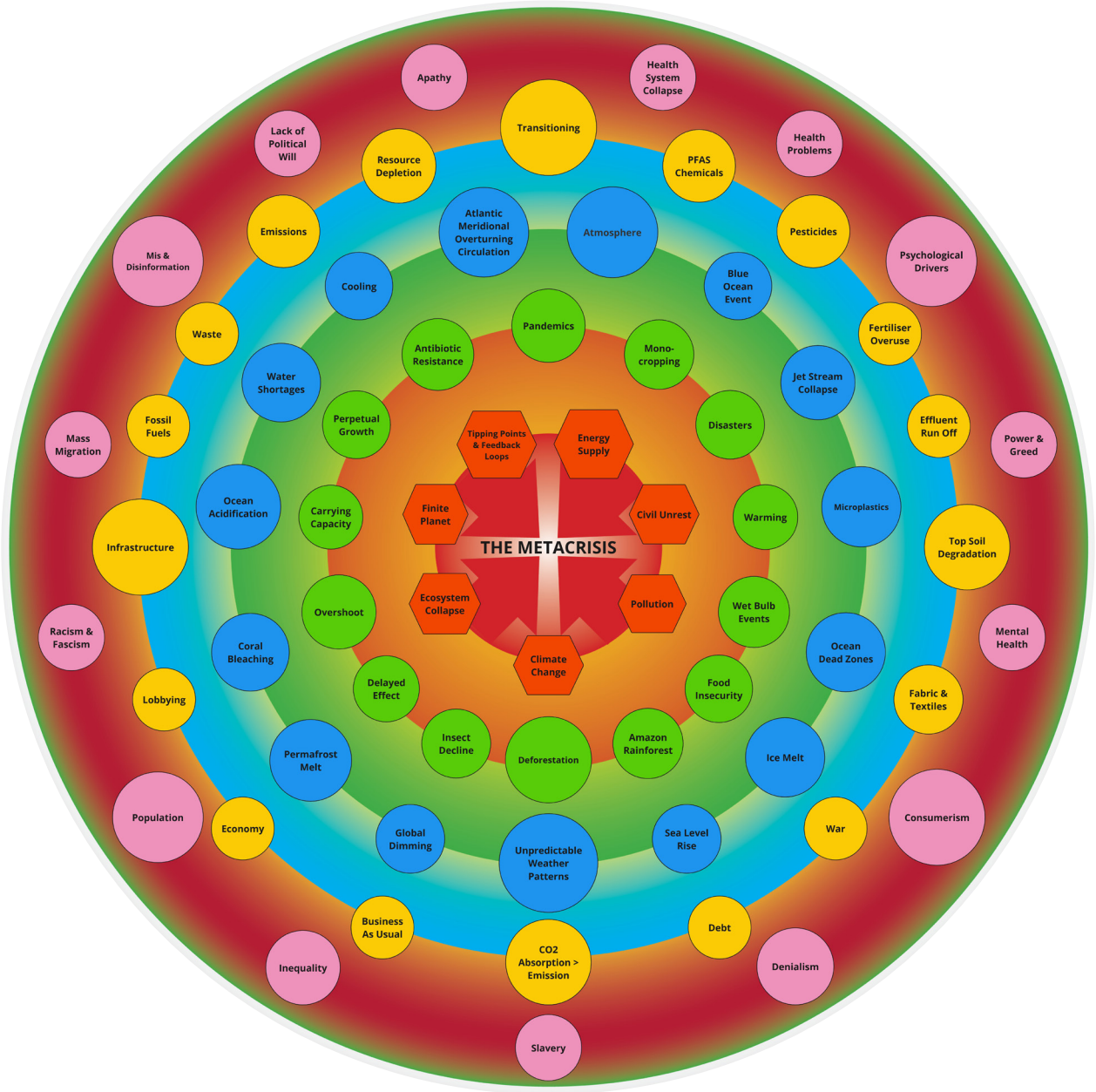
Resource Depletion:
This is the consumption of resources faster than they can be replenished, assuming that they can even be replenished. Naturally this ties in overconsumption, perpetual growth, and living on a finite planet. As resources become scarcer, their cost increases, which can lead to economic instability. Consider that the world's proven oil reserves are enough to last only another 47 years at the current rate of consumption, and they require more and more energy to extract, and can have dire impacts on the natural environment.
https://fastercapital.com/content/Resource-Depletion--On-Borrowed-Time--Resource-Depletion-and-Doubling-Dilemmas.html

Top Soil Degradation:
The layer of soil that provides the growing medium and nutrients for our crops is being depleted faster than it can regenerate, in some places up to ten times faster. Our modern agricultural practices damage the microsystems and microorganisms, and tilling leads to increased erosion, as does the increased frequency of heavy rains and floods.
https://www.scientificamerican.com/article/only-60-years-of-farming-left-if-soil-degradation-continues/

Transitioning:
Knowing that we can't rely on fossil fuels indefinitely, we need to be switching to alternative power options. Unfortunately we need to use more fossil fuels to generate the power to enable us to shift to alternatives, and mining for raw materials such as Lithium can cause devastating damage to the natural environment. Renewable power sources such as wind or solar, or even sometimes hydro, are by nature, unable to run 24/7.
https://www.reuters.com/business/environment/fossil-fuel-use-emissions-hit-records-2023-report-says-2024-06-19/

War:
The environmental impact of war is staggering, fueling greenhouse gas emissions, pollution, severe biodiversity loss, not to mention the fact that it props up the global fossil fuel industry by locking in oil, gas, and coal demand. At a time when we need to be working together to mitigate the worst impacts of climate change, instead wars fuel division, civil unrest, hatred, and severe geopolitical instability. As natural resources continue to be depleted or become more vulnerable due to climate, desperation will drive more conflicts.
https://www.globalcitizen.org/en/content/how-war-impacts-the-environment-and-climate-change/

Waste:
Every year we dump over 2 billion tonnes of waste on the planet. If all this waste was put on trucks, they would go around the world 24 times. This staggering amount of waste is partly because 99% of the stuff we buy is trashed within 6 months. Waste leads to pollution of soil, air, oceans, and groundwater. Unfortunately global annual waste generation is projected to increase by 70% by 2050, unless major changes take place.
https://www.theworldcounts.com/challenges/planet-earth/waste/global-waste-problem



RED: PEOPLE

Apathy:
Apathy can take the form of a lack of interest, enthusiasm, or concern, and is a complex emotion which can be influenced by many things in relation to the climate crisis. It's an understandable response to have if one feels like there isn't much hope for the future, but ultimately it disempowers people, and as a result, enables other people and corporations to get away with power grabs, and further destruction of the planet. Apathy does not lead to change, and we really need to change things.
https://breakthedivide.net/blog/understanding-apathy-as-a-response-to-climate-change/

Consumerism:
The modern society of consumerism and rampant 'development' is destroying our world, and the biggest problem with it is the fact that people do not realise that there is a problem. We are consuming resources at an alarming rate, and quicker than our planet is able to replenish. On top of that, what we spend our money on, really could be money better spent. It is estimated that every year, Europeans spend $11 billion on ice cream, which is nearly enough to bring education to every child on the planet. Twice.
https://greentumble.com/the-negative-effects-of-consumerism

Denialism:
Denial is a coping mechanism that gives you time to adjust to distressing situations, but staying in denial can interfere with your ability to tackle challenges. It is easier to accept that all the troubles the world faces are the result of a "shadow government" pulling strings behind the scenes, than it is to accept that nobody is in control. It is preferable to deny the fact that we need to change our lifestyles, make ethical choices, or eat consciously, than it is to acknowledge that our daily choices do have ramifications for the environment, and that maybe we do need to make changes to the way we live.
https://www.climaterealityproject.org/blog/climate-science-denial-why-and-what-to-do-about-it

Health Problems:
Due to many factors in our lifestyles, our homes, and our environment, there are increasingly more and more causes of health problems. Often we prioritise short term monetary gains over safety, like we did when we put lead in fuel, smothered crops with pesticides, flooded the world with PFAS chemicals, developed ultra processed foods, increased sugar quantities in just about everything, or promoted smoking and alcohol, all the while ignoring or outright burying the evidence of health problems associated with these actions or products. And this doesn't even touch on climate change related problems.
https://custommapposter.com/article/the-13-biggest-threats-to-global-health-according-to-who/2824

Health System Collapse:
The health systems around the world are under increasing strain due to the growing numbers of health problems, ageing populations, inequality, financial constraints, and even burnout of staff within the sector. During COVID-19, the health system all but crashed for a number of countries when faced with the strain of dealing with so many patients at one time. With climate change adding more pressure to an already strained system, it is foreseeable that there will likely be more and more breakdowns in the health system.
https://www.chathamhouse.org/2024/06/driving-universal-health-reforms-through-crises-and-shocks/01-introduction

Inequality:
Over the past decades, the world has seen increasing levels of economic inequality, where income and wealth is increasingly unequally distributed. For instance the richest 1% grabbed nearly two-thirds of all new wealth created since 2020. This is worth $42 trillion, and is almost twice as much money as the bottom 99% of the world's population has. This same 1% produce double the combined carbon emissions of the poorest 50%. Unfortunately it is the poorest and third world countries who bear the brunt of climate change first.
https://www.bbc.com/news/science-environment-56723560

Lack of Political Will:
Many climate change policies, from the local level to the global level, fall apart at the lack of "political will", i.e. the unwillingness or inability of government officials to enact policies that will reduce carbon pollution at the scale and speed required. Unfortunately governments around the world are still prioritising economic growth and GDP over making meaningful policy change. They are captured by lobbying, have conflicts of interest, and because collectively, the public still isn't pushing enough, for the reform or policy that we need to address climate change.
https://time.com/6165094/ipcc-climate-action-political-will/

Mass Migration:
Migration is expected to inevitably rise thanks to wars, violence and fascism, and as climate change affects more countries and populations, reshaping our world as entire zones become uninhabitable. Mass migration not only touches the people who have fled, but it also puts pressure on the countries receiving refugees and their existing infrastructure, and a huge amount of additional resources are required to support and deal with humanitarian crises. Add to this, frustration and friction between those being forced to migrate, and those taking on refugees, and it's a flammable situation. Over 95 million people are now either refugees or have been internally displaced because of violent conflict.
https://www.npr.org/2024/06/17/nx-s1-5006129/global-migration-spikes-due-to-violence-climate-change-and-economic-mismanagement

Mental Health:
There are numerous ways that mental health is being affected in these times, and climate anxiety is certainly one of them. We also have a prevalence of lowered attention spans, diminished ability to think critically, less mental resilience, growing addictions and escapisms in the form of drugs or technologies, and then the effects of PFAS chemicals and pesticides. The increasing division and polarisation also adds complications to this list, as unease and suspicion grows between individuals and communities. CO_2 is also linked with cognitive decline, which means that as we continue to generate higher levels of CO_2, we become more mentally impaired by it.
https://www.weforum.org/agenda/2019/01/this-is-the-worlds-biggest-mental-health-problem/
https://climate-adapt.eea.europa.eu/en/observatory/evidence/health-effects/mental-health-effects

Mis & Disinformation:
Misinformation is the sharing of information that is false or incorrect (not with ill intent), while disinformation is the deliberate spread of misinformation with the intent to mislead. The rampant spread of misinformation on social media, rather alarmingly undermines the dialogue we should be having about adapting or improving our society, and unfortunately this divisive narrative increasingly dismisses the science, downplays the legitimacy of, or outright denies that humans play a role in climate change.
https://www.weforum.org/press/2024/01/global-risks-report-2024-press-release/

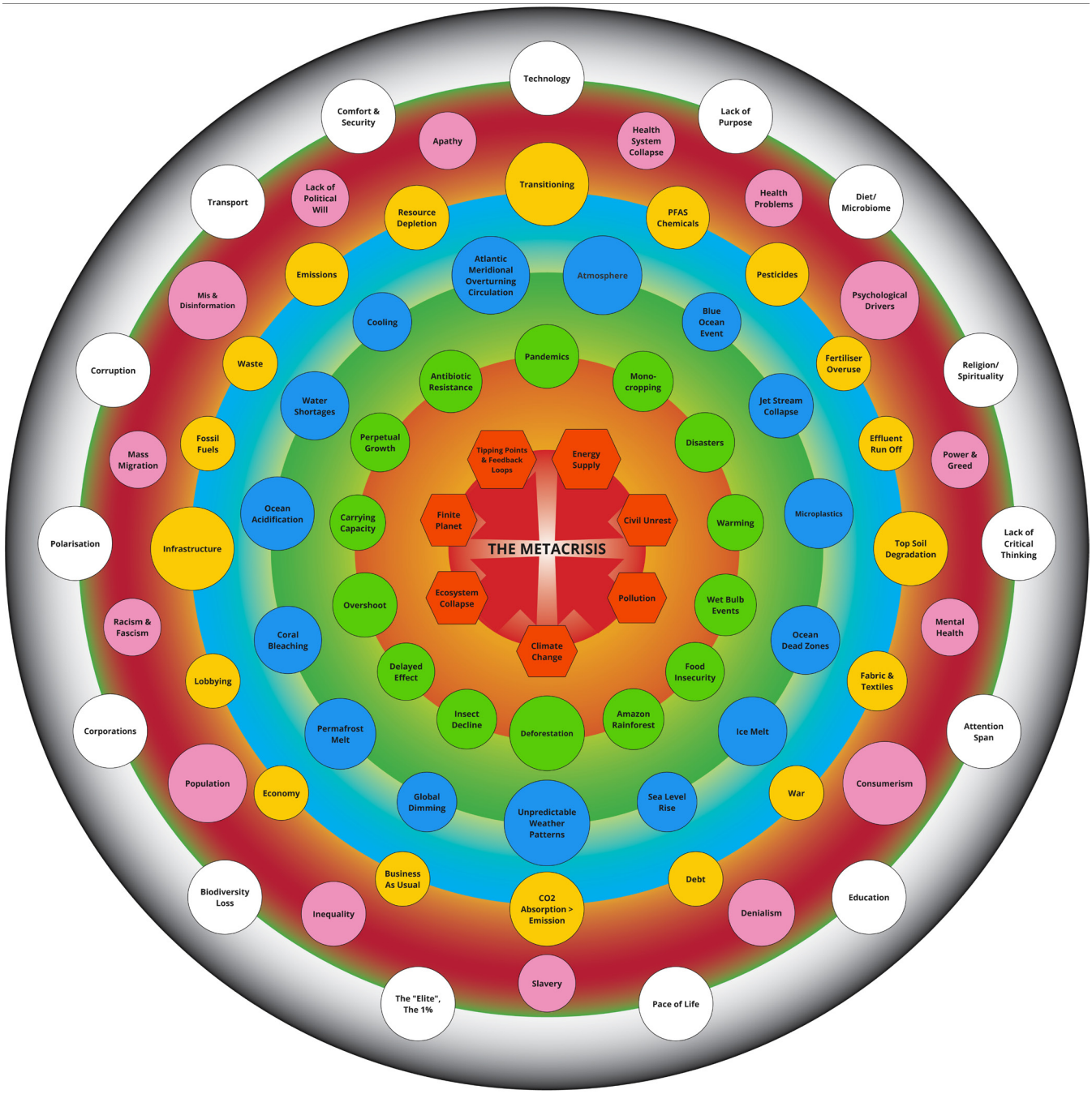
Population:
We reached 8 billion people recently. Western lifestyle heavily influences how everyone should live, as many third world countries aspire to have the luxuries that Western countries have. Population growth equals consumption growth, thus an ever expanding population leads to overshooting our carrying capacity. If everybody on the planet consumed and lived the way we do in New Zealand, we would reach our theoretical limit of renewable resources by early April.
https://www.overshootday.org/newsroom/country-overshoot-days/

Power & Greed:
Sadly it is often the people least suited to be in power, who are most motivated to want or gain it. Political systems have become more akin to a popularity contest instead of who has the most informed and best policies. Corporations prioritise market share and competitive advantage at the cost of consumer wellbeing, safe products, and environmental impact. The economic system of capitalism rewards and incentivises the wrong actions, leading sociopaths and narcissists into management or power roles, and essentially perpetuating and exacerbating inequality.
https://opinion.inquirer.net/135339/power-and-greed

Psychological Drivers:
Sociopathy and narcissism are personality traits which favour personal gain of an individual, over betterment of others or positive outcome for the collective. We are losing touch with our relationships with each other, and with the natural world. Technology can connect or divide us, and it is eroding our attention spans. Given that there is a decline in the ability to think critically about topics, ones which need a period of engagement longer than merely a few minutes, we are gradually degrading and splintering our ability to think rationally and objectively about the real problems we face.
https://www.apa.org/news/podcasts/speaking-of-psychology/attention-spans

Racism & Fascism:
Fascism is an ultranationalist, anti-democratic, far right movement. It is a set of political practices fundamentally based on upholding rigid, identity-based hierarchies, where the majority sees itself as a victimised community, fighting against marginalised communities for its survival. The strengthening of the far-right can be seen clearly in the European Parliament elections and in numerous countries around the world. Fascism fuels racism, and both do nothing but divide us.
https://truthout.org/articles/fascism-is-rising-but-it-does-not-have-to-be-our-future/

Slavery:
Modern slavery refers to people who are exploited for other people's commercial or private gains. The victims are coerced into modern slavery through a variety of means, including physical violence and psychological threats. It is estimated there are now 50 million people globally trapped in slavery. Unfortunately mass migrations, rising fascism, geopolitical issues, and power grabs, all increase the risk of slavery. Many industries use slave labour, and as such, much of our consumer culture of cheap plastic products or clothing is built on slavery.
https://www.walkfree.org/news/2024/modern-slavery-risks-rise-as-greatest-number-of-global-conflicts-since-wwii/



WHITE: MISCELLANEOUS

Attention Span:
We face a constant barrage of stimuli in our environment which wears down our mental health, reduces our ability to concentrate, and impairs our capacity to understand and hold complex issues such as the Metacrisis for any amount of time. Our digital culture demands immediacy, and is a near constant subconscious draw on our attention. The more we are distracted, the more our attention span shrinks over time. This can lead to...
https://news.northeastern.edu/2024/01/23/decreasing-attention-span/

Atmosphere:
Contemporary research on cloud modeling suggests that their ability to keep us cool is diminishing as the world warms. Meanwhile extra water vapour in the atmosphere is estimated to more than double the greenhouse effect, and aerosol pollution affects not only the atmosphere, causing global warming and cooling, but also causes a myriad of health issues for people. In other news, retiring satellites burn up in the atmosphere releasing aluminum oxide vapor, a compound that erodes the ozone layer. With increasing numbers of satellites being launched (it is estimated that by 2040, there will be around 60,000 in orbit), this is going to become increasingly problematic.
https://e360.yale.edu/features/why-clouds-are-the-key-to-new-troubling-projections-on-warming

Biodiversity Loss:
We are in the midst of the sixth mass extinction event. Wildlife populations are estimated to have declined by at least 70 percent in the past 50 years, and as we continue to consume nature, clear land for agriculture, and use more and more chemicals and pest controls, the decline of wildlife is only going to get worse. Not to mention that the increasing global temperatures will push more animals past their ability to survive, and as we trigger climate tipping points such as coral bleaching events, the lives of millions of people will be at risk.
https://www.theguardian.com/environment/2025/oct/13/coral-reefs-ice-sheets-amazon-rainforest-tipping-point-global-heating-scientists-report

Comfort & Security:
The changes that we need to make individually, and as a society are essentially monumental. But if we could start with the small things that we can do, that would begin to make a difference. Change could begin to happen. Unfortunately for many people, looking at the big picture, and thinking about the changes needed, challenges their comfort and security, and ultimately they decide to stick with their comfortable lifestyles rather than do the things that we should be doing.
https://www.ifaw.org/international/journal/small-steps-help-fight-climate-change

Corporations:
Corporations are primary emitters of greenhouse gases and thus key agents in responding to climate change. Unfortunately through political and organisational influence, many corporations manipulate policies in their favour, rather than to instigate positive change. Short term incentives, narrow focus on economic growth, and shareholder profit ultimately win out over meaningful change, and we're seeing more companies backpeddling on their climate goals, using greenwashing techniques, or generally obscuring data to avoid making change.
https://trellis.net/article/large-corporations-undermine-climate-action/

Corruption:
Interestingly, there seems to be a feedback loop between corruption and climate change/disasters. Disasters that draw donations, increase the likelihood of corruption, and that corruption in turn, increases the intensification and frequency of climate change and its associated disasters. Political, corporate, and opportunistic free agents, are all happy to skim a little off the top, cook the books, or employ strategies such as green washing, to benefit themselves at the cost of the greater good. It was Lord Acton who said "power corrupts; and absolute power corrupts absolutely".
https://www.transparency.org.nz/blog/corruption-and-climate-change-two-battles-that-must-be-fought-together

Diet/Microbiome:
In an era dominated by fast food, packaged snacks, and sugar-laden beverages, the Western-style diet has become the global norm in many parts of the world. Although the hidden consequences of this diet are only just starting to be widely studied and understood, the evidence already shows that an unhealthy gut microbiome weakens your immune system, leads to greater mood disorders such as anxiety and depression, and increases your risk of inflammation and chronic illnesses, among numerous other issues.
https://www.sciencenewstoday.org/10-ways-your-gut-microbiome-affects-your-health

Education:
The situation we face today with declining global education standards, and a leaning towards maintaining the status quo, is of real concern. Basic comprehension in reading, writing, mathematics, science and theory, reasoning, understanding logic, the ability to grasp abstract concepts, and differentiate fact from opinion, are all skills in decline globally. Within the education system, cognitive studies find that high-interactivity digital learning reduces working memory performance and impairs the brain's default-mode functioning. The very system that underpins imagination and sustained reasoning. This comes at a time when we need to understand our precarious position and generate viable solutions. If the children of our future lack the ability to grasp the true state of the world, the chances of averting the worst of our global issues looks even bleaker.
https://medium.com/disruptive-design/system-failures-the-education-system-and-the-proliferation-of-reductive-thinking-dccf7dbb9b96

Lack of Critical Thinking:
Critical thinking means being able to clarify your thinking so that you can break down a problem or a piece of information, interpret it, and then use that interpretation to arrive at an informed decision or judgement. Concerningly, it seems there is a decline in critical thinking, and there are increasing numbers of people whose reaction to contrary ideas is to attack and/or exclude these notions which sit outside their cognitive realm, a problem further inflamed by echo chambers and confirmation bias. Those with this mentality also react with skepticism towards issues such as climate change, because they have learned to privilege subjective emotions over reason and truth.
https://kapable.club/blog/thinking-skills/lack-of-critical-thinking-skills/

Lack of Purpose:
A lack of purpose has profound psychological effects in relation to social cohesion, mental stimulation, physical aptitude, as well as emotional regulation and wellbeing. Without a sense of purpose, people can become aimless, untethered from striving for betterment, growth or progression. When people are detached from the natural world, they feel no incentive to try and improve it, and when facing the Metacrisis, it's abundantly clear that people need to feel like there is a point in moving forward, rather than just giving up. It's a difficult space to navigate.
https://www.extrology.com/blog/the-meaning-crisis-finding-purpose-modern-life

Pace of Life:
Because our society runs at breakneck speed, most people are so caught up in the sheer pace of life that it takes a concerted effort to find the time and energy to look at the state of the world, and give it the consideration it deserves. Unfortunately people find neither the time or motivation to do this. Our mental and physical health suffers from a work-life imbalance. When we are so distracted by the immediacy of work and life in the day to day, we lose the capacity to think about the things we could be doing individually that could make a difference, let alone the larger scale problems which end up in the "too hard basket" in perpetuity.
https://stepofweb.com/what-is-the-danger-of-fast-paced-life/

Polarisation:
Societal polarisation is a complex issue with interconnected causes and effects. It refers to ideological and cultural divides which can lead to declining social stability, constant gridlock in public decision-making, economic disruptions, and increasing political polarisation. It is also closely linked to other societal risks, such as misinformation, civil unrest, and the erosion of human rights. Divided societies are less equipped to tackle other global challenges such as ecological transitions, or economic, demographic, and digital transformations.
https://llyc.global/en/ideas/what-is-polarization-and-why-it-matters/

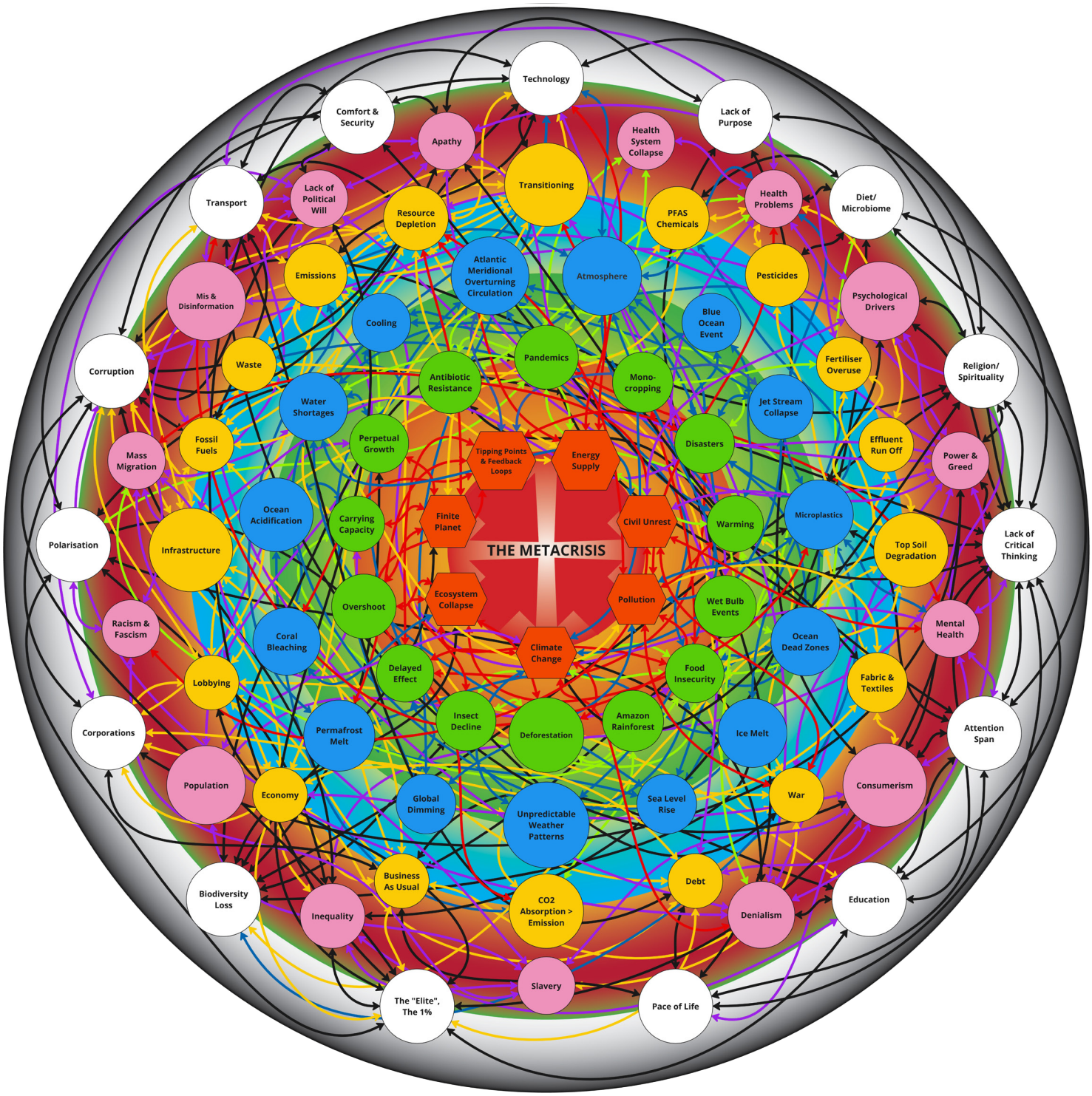
Religion/Spirituality:
Religion can cause conflict when people see their own religion as the one true cause worth fighting for, and can cause polarisation against anyone who doesn't share their beliefs. Looking at history we can see clear periods of civil unrest or persecution as a result of organised religion. It is also unfortunately readily corruptible by power and greed, and has a tendency to view the natural world as subservient to humans. "New Age Spirituality" on the other hand, seems to rely heavily on the concept that we just need to focus on the good things, and "think the world better", in the process neglecting making actual tangible changes, and often discrediting issues such as climate change as fear mongering.
https://prri.org/research/the-faith-factor-in-climate-change-how-religion-impacts-american-attitudes-on-climate-and-environmental-policy/

Technology:
Technology is often touted as the big solution to climate change, but this is not necessarily the case. Yes it can offer solutions, but to rely on it, especially for "future technological solutions", merely delays making meaningful change now. AI has been a big topic of conversation as a means to troubleshoot solutions, but the sheer quantity of energy required, the land cleared and developed for it, and the vast quantities of water needed to cool and sustain it, mean that it has a huge environmental impact. Certainly technology can help, but the way we use it now, leaves a lot to be desired.
https://www.techradar.com/pro/generative-ai-triples-the-carbon-dioxide-emissions-from-data-centers

The Elite, The 1%:
Analysis shows that the richest 1% burned through their share of the annual global carbon budget within the first 10 days of 2025, and are responsible for more than twice as much carbon pollution than the poorest half of humanity. Their constant drive for more wealth, more possessions, and more power, comes at a severe cost to the planet. They also have the political clout and drive to influence policies that continue to benefit them, as well as the finances to lobby, and thus sustain their power imbalance.
https://www.oxfam.org/en/press-releases/richest-1-burn-through-their-entire-annual-carbon-limit-just-10-days

Transport:
As of late 2023, it was estimated that there were over 1.4 billion gasoline and diesel-powered vehicles operating globally. Though electric vehicle adoption is accelerating, these traditional internal combustion engine vehicles still dominate the roadways. Essentially we need to transition away from fossil fuel powered cars, but that still requires an unsustainable amount of resources, power, and infrastructure, all of which have significant environmental impacts, including greenhouse gas emissions, resource depletion, and pollution. Vehicles worldwide shed an estimated 6 million tonnes of tyre fragments annually, and account for 28% of microplastics entering the environment globally.
https://iere.org/how-many-gasoline-and-diesel-cars-are-on-the-road/

THE METACRISIS CONNECTIONS



In Summary:

On the previous page is an image on which I've drawn as many links that I know of, connecting the various topics. It looks a bit like a spaghetti junction, but I think it does help convey the complexity of collapse. As hard as it is to capture the concept in conversation, it's equally hard in graphical form. You need some proper scale and perspective.

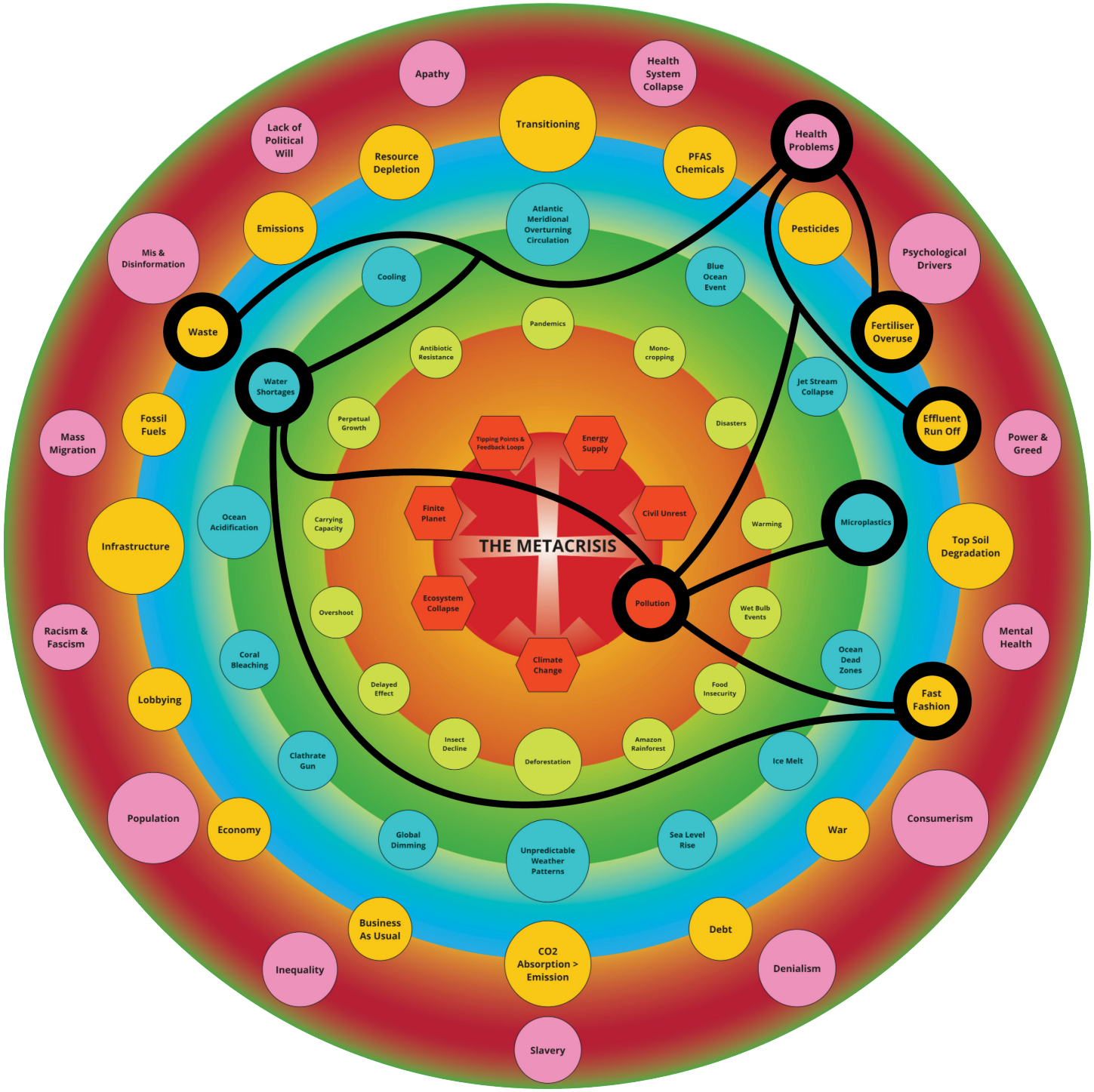
Ultimately after all this, the ideal place to get to is a place of empowerment and agency, to feel passionate about wanting to make a difference. It is my hope that you will go away and think about this, and when you read the news, you'll be able to put it in context. Maybe you're someone who can make a difference, who can talk to others, or rethink a way of doing something, considering its environmental cost, and changing it. Maybe you can invent a new technology, or perhaps you just know someone who would be receptive to having this conversation.

We are on the brink of catastrophic change, and we aren't doing anywhere near enough to address it, let alone even really talking about it. The Metacrisis isn't our future, it's unfolding now, we just haven't noticed it yet, and unfortunately, we're too busy to notice. Any difference we can make now, is worth it. If we can build resilience together, and grow stronger as friends, families, and communities, then that's worth it. If we can leave the world just a little better off, then it's infinitely better to try, than to do nothing.

Some Examples:

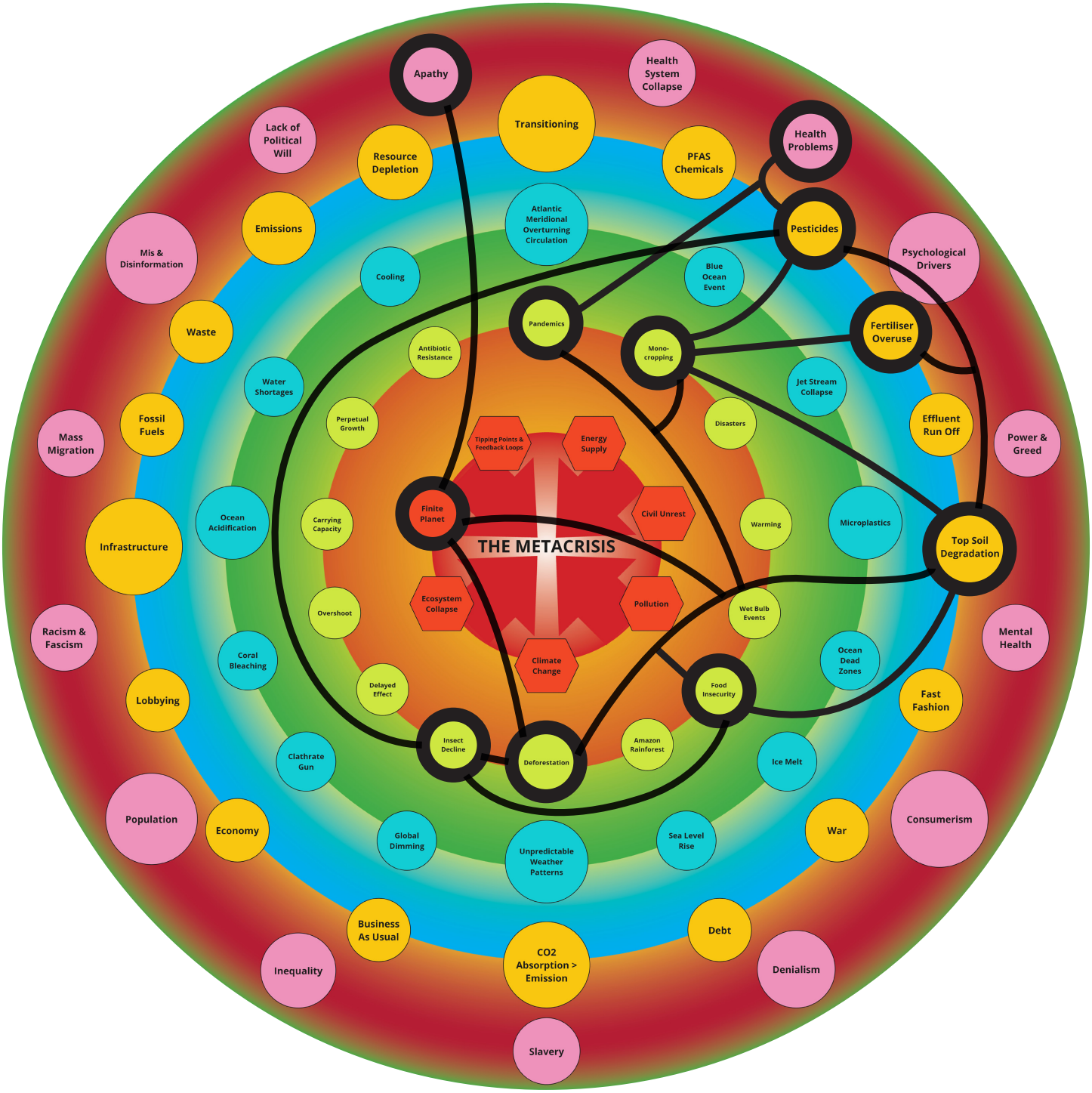
In 2024 I put together a small series of infographics around a selection of topics in the Metacrisis. Two things to note: firstly these images are made using an earlier version of the diagram, and secondly, the data, numbers, and facts are all drawn from late 2024, which means that whenever you're reading this, things have likely only gotten worse. For example, in 2024 global debt was around $100 trillion, now in 2026 it is over $300 trillion. We are now quite near to crossing major tipping points relating to coral bleaching, the AMOC, and even the Thwaites "Doomsday Glacier" in Antarctica. Regardless, these images over the next pages show how you can link topics and understand the way things inter-relate.

Pollution, Water Shortages, Waste, Fertiliser Overuse, Effluent Run Off, Fast Fashion, Health Problems



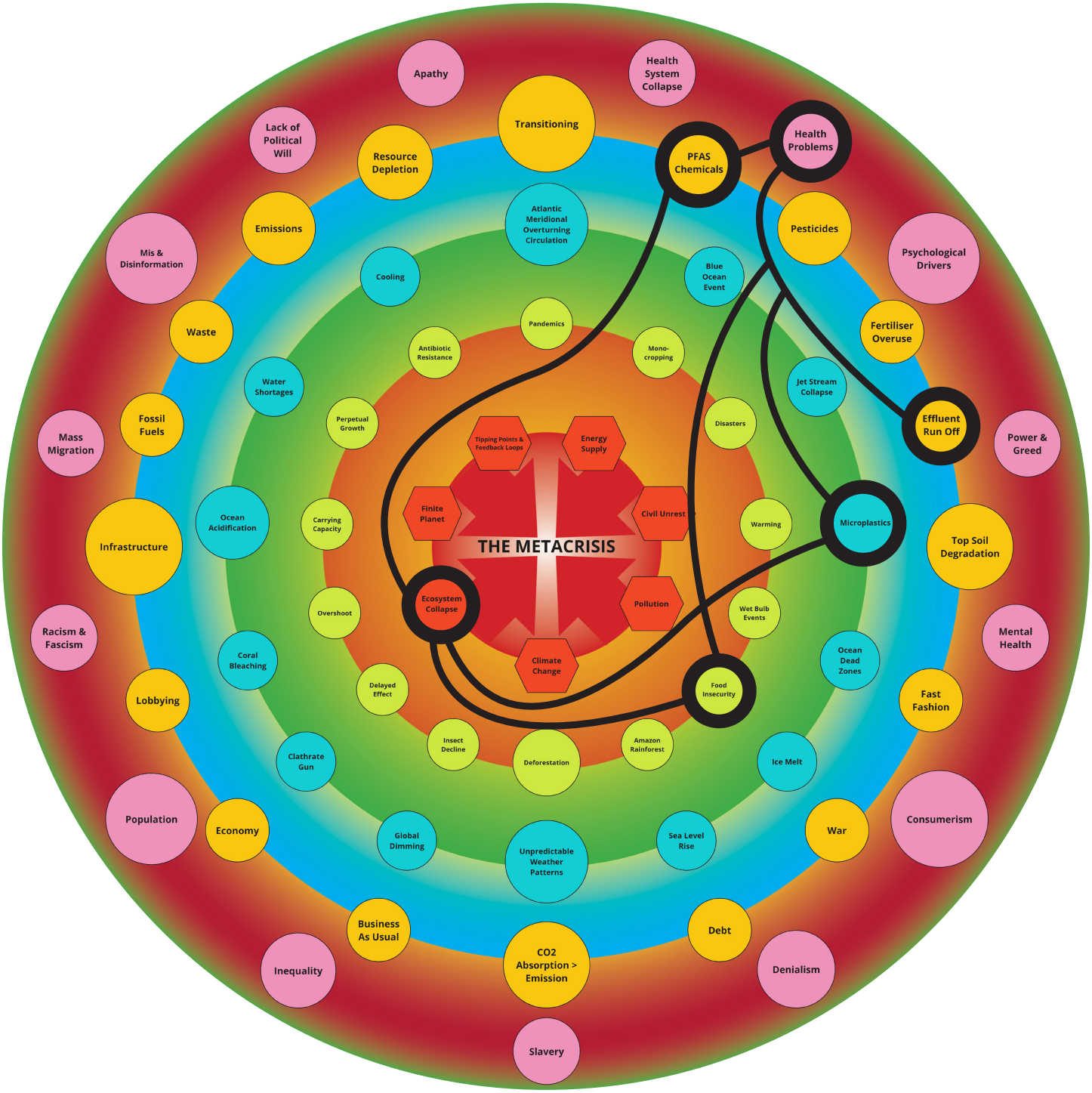
Globally we have polluted our waterways and oceans. Today, 80% of our wastewater flows untreated back into the environment. The Great Pacific Garbage Patch is 100,000 tonnes of rubbish. It's 1.6 million km², or six times the size of New Zealand. Nitrate levels of 1mg/L increase the risk of bowel cancer, and global standards allow 11.3mg/L. In New Zealand, 60% of tested water is dangerously contaminated, affecting an estimated 800,000 people. 70% of Chinese freshwater is polluted thanks just to the fashion industry.

Finite Planet, Deforestation, Insect Decline, Monocropping, Food Insecurity, Pandemics, Top Soil Degradation, Fertiliser Overuse, Pesticides, Health Problems, Apathy



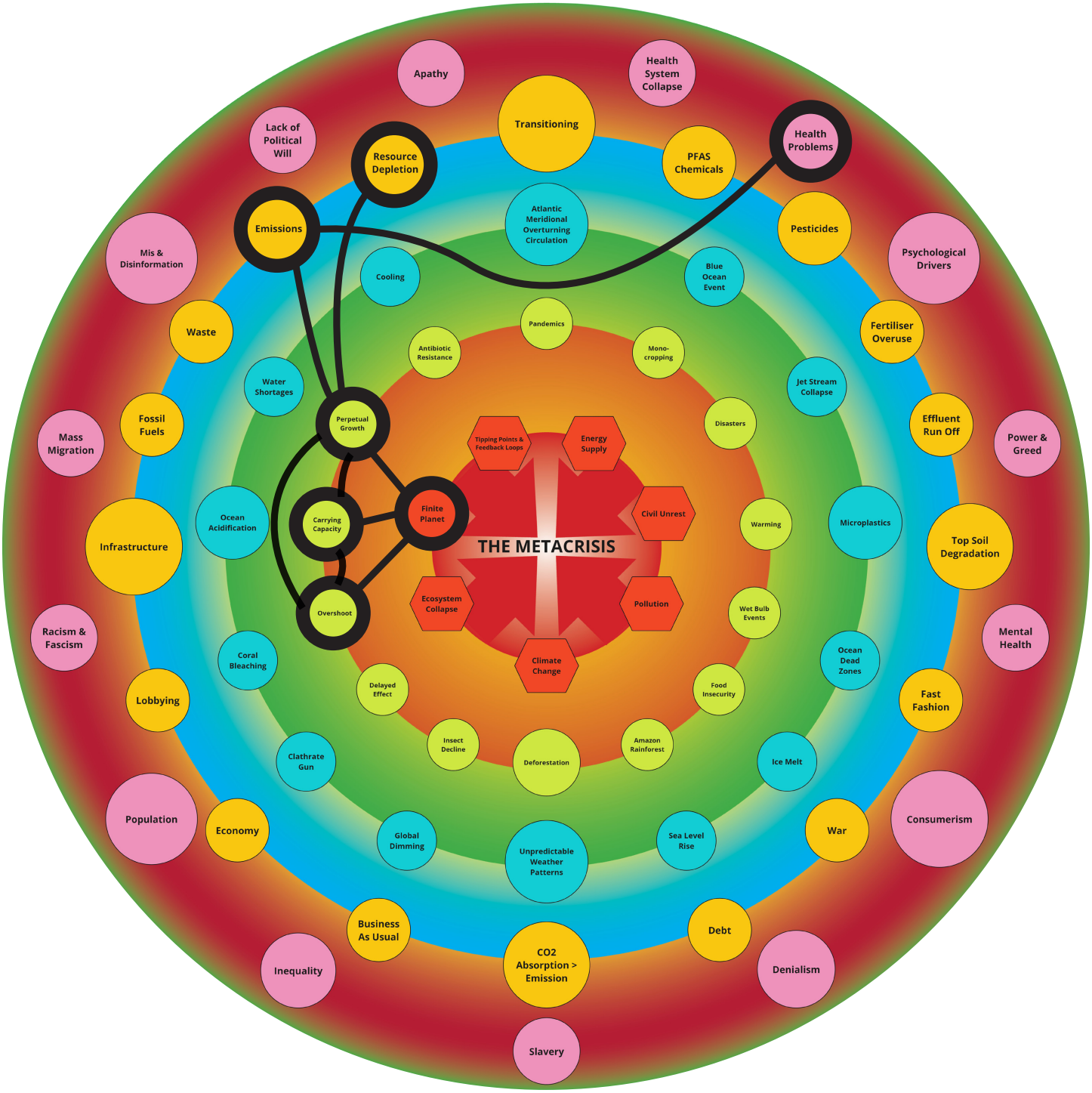
We are destroying the soil. It takes between 500-1000 years to form an inch of topsoil, and we are losing an inch on average every 25 years thanks to our agricultural processes. 90% of top soil is expected to be at risk by 2050. The way we grow our food is poisoning both the planet, and us, thanks to pesticides, and nutrient poor food. Since 1950, the nutrient content in 43 different staple crops has declined by up to 80%. The destruction of global forests is still increasing, and is higher than when 140 countries promised to halt deforestation by the end of the decade. Loss of forest habitat drives declining insect populations, and can lead to an increased risk of zoonotic diseases mutating and causing pandemics.

Ecosystem Collapse, Food Insecurity, Microplastics, PFAS Chemicals, Effluent Run Off, Health Problems



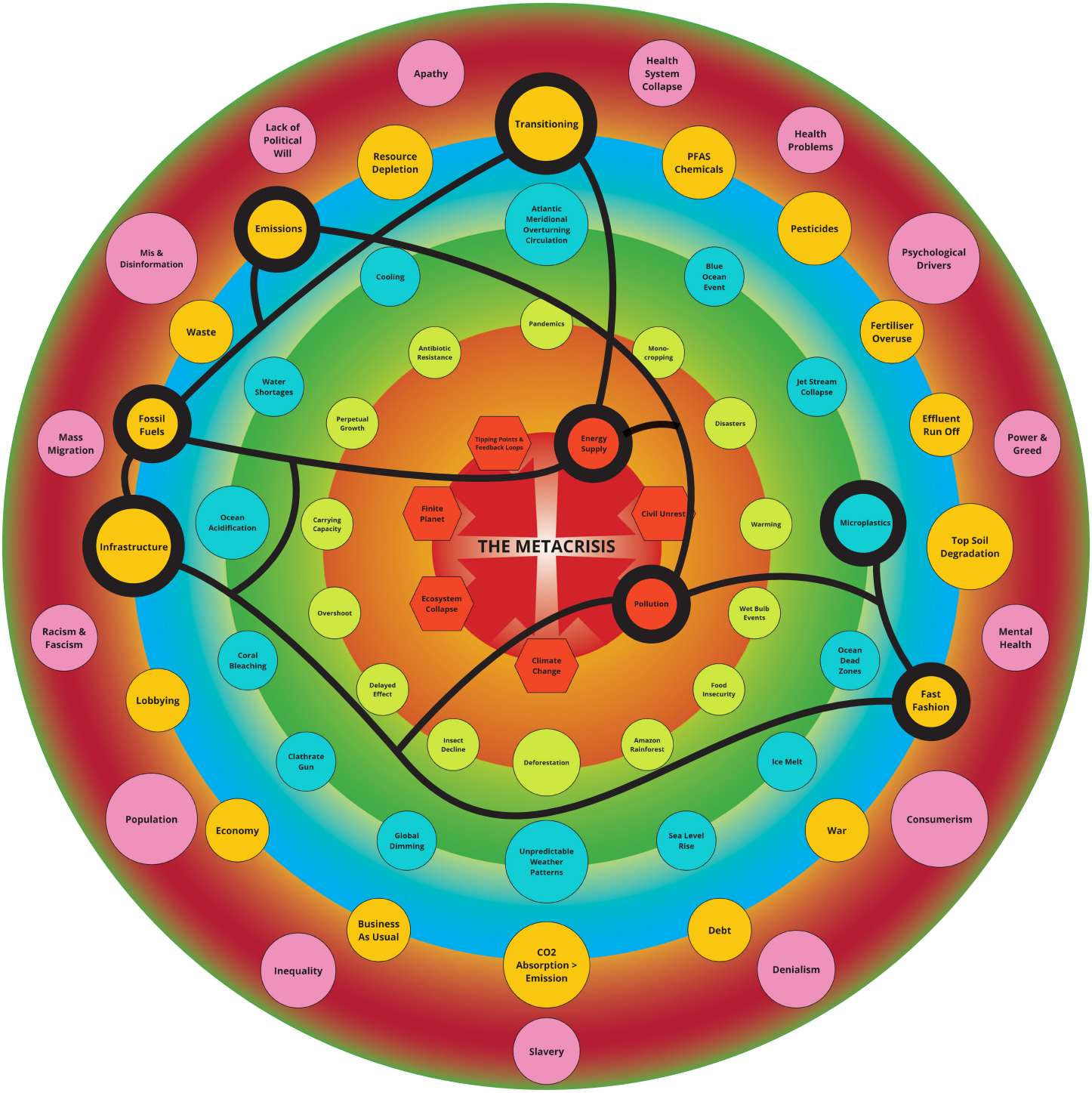
Wildlife makes up only 4% of the total biomass on earth, the rest is humans and livestock. It is estimated that plastics are greater in mass than all land and marine animals. Microplastics and PFAS chemicals are ubiquitous, and their detrimental health effects (though still being studied), are not looking good for us, or the food chains which they are now a part of. Microplastics are found in lungs, placentas, reproductive organs, livers, kidneys, knee and elbow joints, blood vessels, bone marrow, and brain tissue. The brain tissue samples contained 10-20x more microplastics than other organs, accounted for 0.5% of the brain's weight, and recent samples contained 50% more microplastics than the 2016 samples.

Finite Planet, Perpetual Growth, Carrying Capacity, Overshoot, Emissions, Resource Depletion, Health Problems



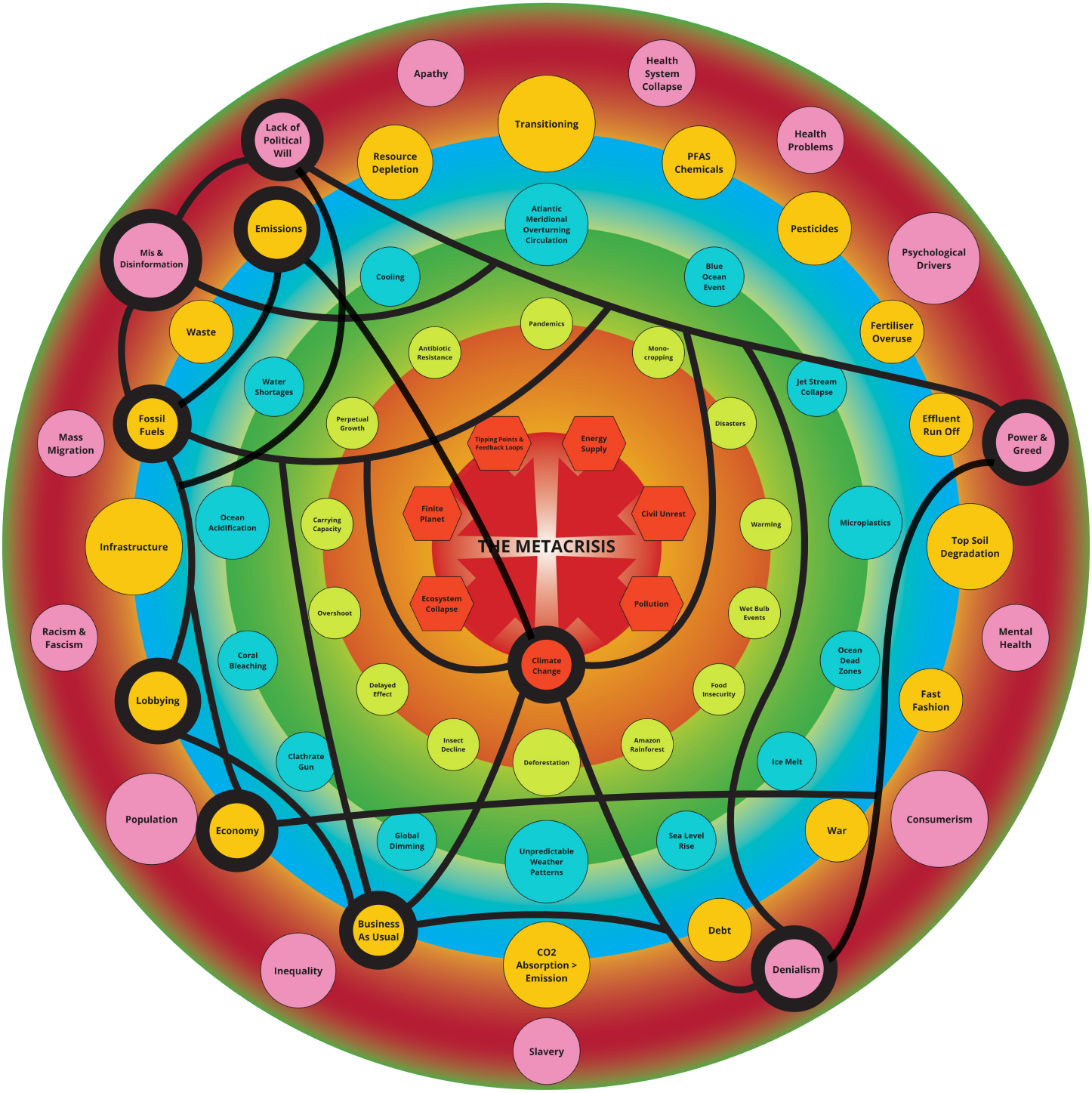
We've increased our emissions by 60% since the year 2000, and in the same period, we've already extracted more minerals, metals, and fuels than in the whole of the 20th century. In 2024, we overshot the earth's carrying capacity on August 1st, so from that point on, our resource consumption for the year exceeded Earth's capacity to regenerate those resources. We are essentially doing nothing to actively reduce our emissions. In fact CO2 levels are increasing at a rate ten times faster than at any point in the last 50,000 years.

Energy Supply, Pollution, Transitioning, Fossil Fuels, Infrastructure, Fast Fashion, Emissions, Microplastics



Our global society runs on energy, and although we are gradually transitioning to more alternative sources, our power is predominantly derived from fossil fuels. Around 80% of global primary energy comes from coal, oil, and gas. Out of a barrel of oil, around 50% is used for power generation, while the rest is used for things like paints, plastics, fibres, cosmetics, and industrial equipment, so even if we stop using oil for power, we still need to address the other ways we use it. More and more energy is being required just to extract these fossil fuels. Utilising the power from 1 barrel of oil used to generate 100 barrels in return. Now it returns between 6 and 10.

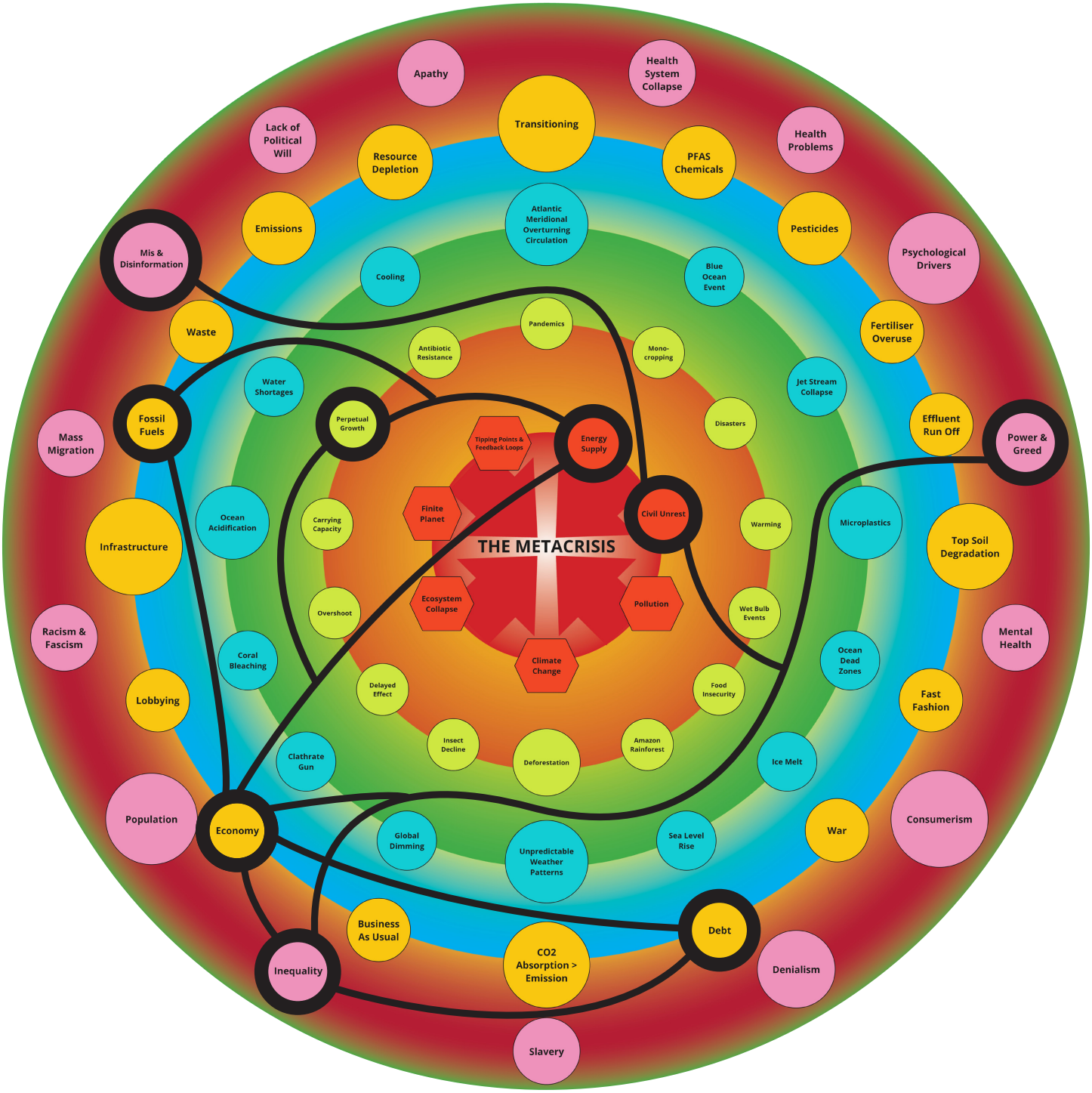
Climate Change, Fossil Fuels, Emissions, Denialism, Mis & Disinformation, Power & Greed, Lobbying, Economy, Business As Usual, Lack of Political Will



The 2023 COP28 president was Sultan Al Jaber, a man tasked with leading the charge on climate change. He also happens to be the CEO of the United Arab Emirates company ADNOC, which is a state oil company. In the seventies, Exxon Mobil concluded its own climate change research, and determined that the emissions from fossil fuels would indeed cause dramatic climate change, starting right about now. They buried the report and started a sophisticated campaign to discredit and obfuscate the truth.

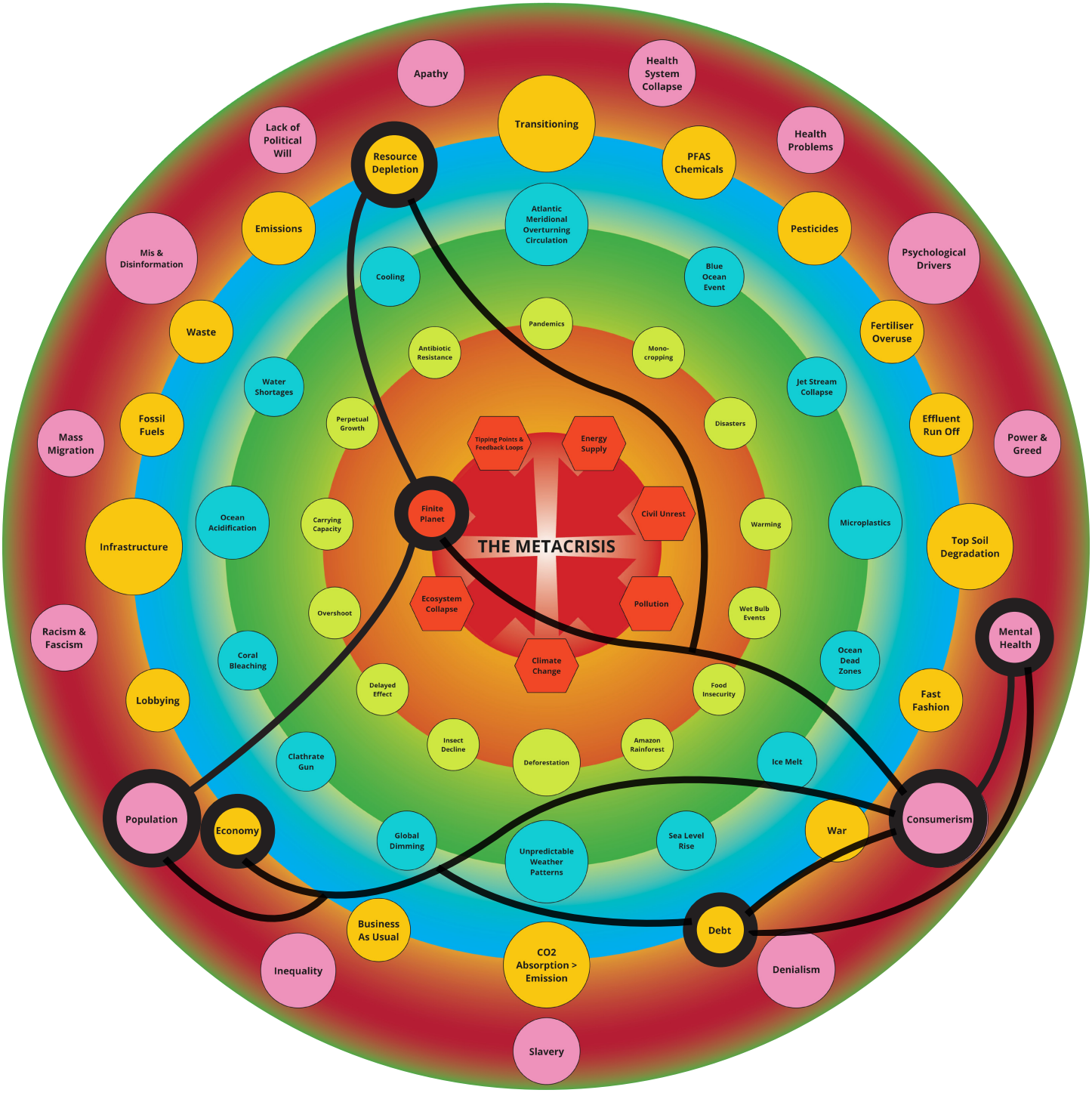
These are the people we are putting in charge of addressing climate change.

Energy Supply, Civil Unrest, Perpetual Growth, Economy, Debt, Fossil Fuels, Mis & Disinformation, Inequality, Power & Greed



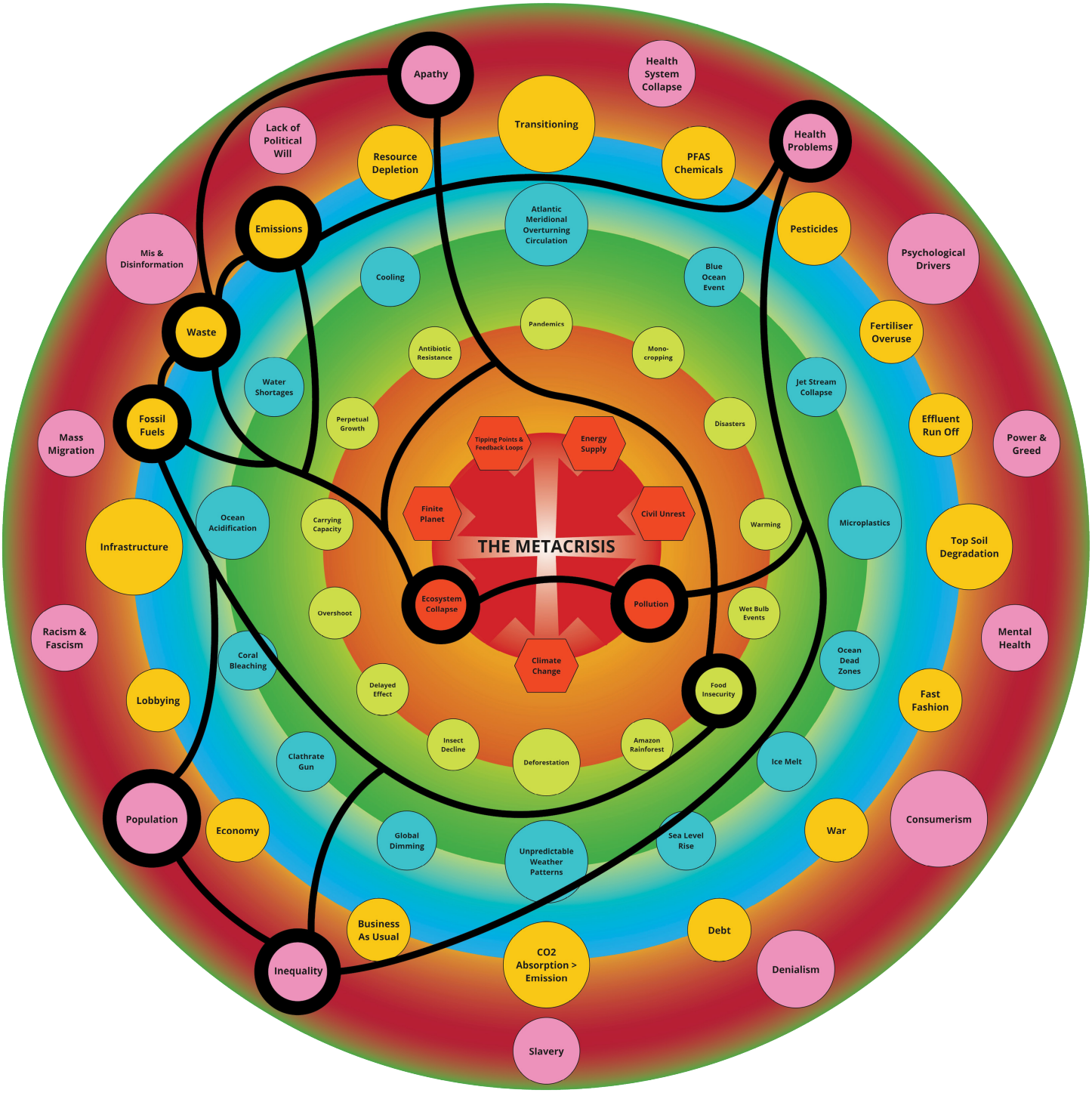
The World Economic Forum expects the biggest short-term risk globally to stem from the spread of "mis" and disinformation. This ultimately results in civil unrest, but can also increase government - driven censorship, domestic propaganda, as well as stricter controls on the free flow of information. Elon Musk anyone? Speaking of inequality, the top 1% now holds more wealth than the entire bottom 95% combined. Meanwhile about 46% of the world's population lives on less than $11.00 (NZD) per day. The global economy, coupled to the energy that fossil fuels provide in order to produce and transport everything, is just shy of $500 trillion (NZD) in debt. This is the biggest, fastest and most wide-ranging rise in debt since World War II.

Finite Planet, Resource Depletion, Economy, Debt, Population, Consumerism, Mental Health



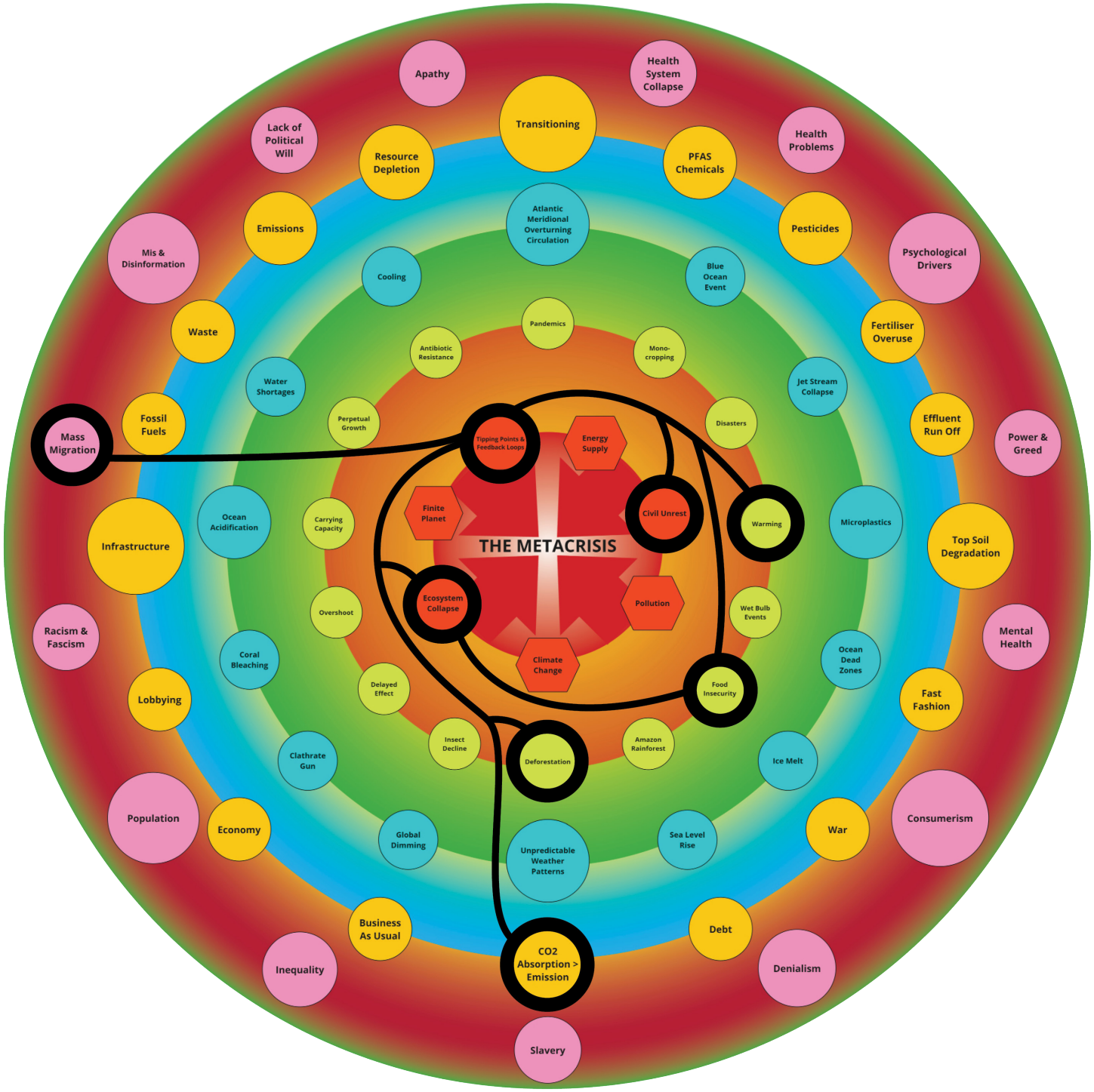
If the global population managed to reach its predicted 9.6 billion by 2050, we would need the natural resources of three planet Earths to sustain our current lifestyle. We have a toxic relationship with consumerism, a culture that drives us beyond what we need, and persistently towards what we want. Materialism is associated with compulsive spending, low self-esteem, envy, and lack of generosity, meanwhile the link between consumerism and low levels of life satisfaction is well documented.

Ecosystem Collapse, Pollution, Food Insecurity, Waste, Fossil Fuels, Emissions, Apathy, Inequality, Health Problems, Population



Globally we're dumping over 2 billion tonnes of waste a year. Less than 20% of global waste is recycled, and a significant proportion of recycled waste is shipped to third world countries where it ends up in landfill or is incinerated, releasing toxic pollutants into the environment, causing health issues and damaging ecosystems. 50% of the global population subsists on food grown with synthetic fertilisers, and the Haber-bosch process that synthesises nitrogen, requires large quantities of fossil fuels, and produces more CO2 than any other chemical-making reaction. Globally roughly 19% of food is wasted annually, despite 783 million people going hungry.

Tipping Points & Feedback Loops, Ecosystem Collapse, Civil Unrest, Warming, Food Insecurity, Deforestation, CO2 Absorption > Emission, Mass Migration



As planetary warming accelerates, it crosses tipping points, which in turn accelerate the warming, and then we have a feedback loop. These are likely to trigger devastating domino effects, including the loss of whole ecosystems, limiting our capacity to grow staple crops, and causing societal impacts such as mass migration, political and civil instability, and economic collapse. In 2023, the hottest year ever recorded (thus far), forests, plants and soil, as a net category, absorbed almost no carbon. The Amazon Rainforest is now emitting more CO2 than it is sequestering. The sudden collapse of carbon sinks is not factored into climate models. Nor is drought induced mortality of forests. In fact feedback loops aren't even fully integrated, and of the 28 that they know of, only 9 are included in the models. Sidenote: Canada's wildfires in 2023 burned around 6-10x more trees than we've planted in the past 8 years globally, that's an estimated 16 billion trees.

Processing and Taking Action

Feeling Anxious? Climate anxiety is a term that captures a very unique manifestation of anxiety that befits the times in which we live, and is specifically related to climate collapse and Earth devastation. It manifests as six stages.

1. Denial: This can take on many forms, but it's important to understand that denial is among the most common defence mechanisms. It occurs when you refuse to accept reality or facts. You block external events or circumstances from your mind so that you don't have to deal with the emotional impact. In other words, you deliberately avoid painful feelings or events.

2. Semi-Consciousness: This is the stage when we begin to sense a shift in our perception. Where we once felt secure and comfortable now feels uncertain and unfamiliar. The terrain of our life is changing which can bring up feelings of insecurity. This is a very uncomfortable stage because denial has served to protect you from seeing and feeling the pain of the world.

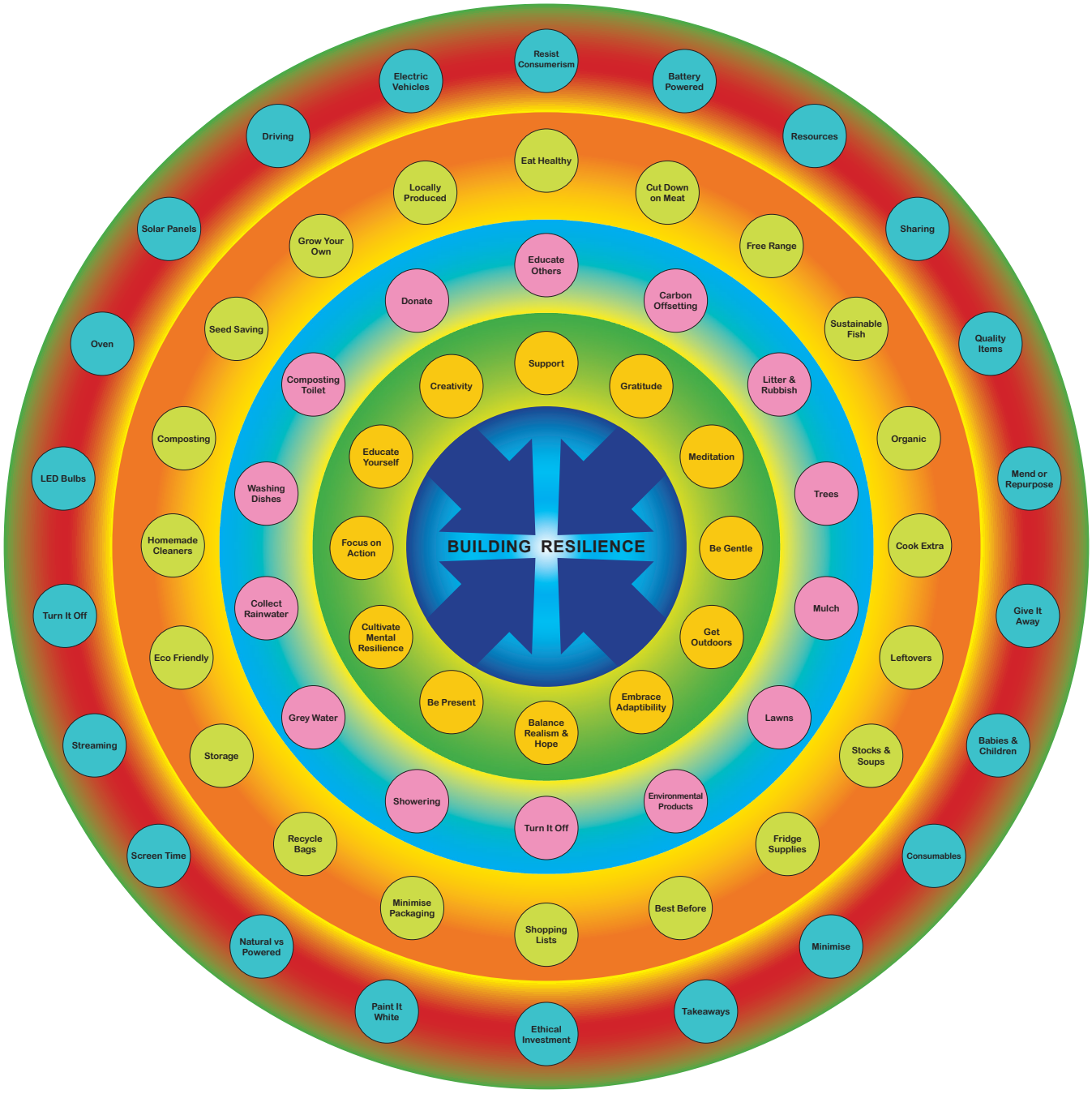
3. Awakening: This is like a thunderbolt, and can often feel like a slap in the face or a punch in the gut. For many, awakening to the inevitability and severity of our collective and planetary troubles doesn't happen by choice, rather it happens as a result of circumstances, especially in times of crises. At such moments, we realise that these global issues are affecting our daily lives, bringing challenges to life as we know it, and causing pain and suffering for many, including ourselves and those we love. Our scope of understanding the current devastation begins to sink in on a visceral level. At this stage it is very important to seek out support. Once awake, the ecological crisis becomes glaringly real. It's not something we can just turn off, un-see what we now see, or un-feel what we now feel.

4. Shock: The experience of shock is one of disorientation. Life has been flipped upside down and turned inside out. One of the most difficult aspects of this stage is the profound but unavoidable feeling of isolation and disconnection. We now inhabit a reality we can no longer ignore, but it’s one that few others seem to notice. The result is a bizarre sense of the surreal. We now realise that the excesses of consumer culture are actually the underlying cause of much of the devastation, so we find ourselves living in an upside-down world compared to most of our neighbours. Interaction and communication can become a challenge. How do we relate to a world that’s no longer real to us, but is still business as usual to most? Do we try to reach out to others about the difficult new realities? Or is it better to act as if nothing has changed, just to get along?

5. Despair: Despair arrives as the dust begins to settle after the shock wave. We are awake and can no longer go back to sleep. The comfort of denial is no longer available to us, and now we must embrace our humanity, come home to our bodies, come back to earth and the suffering of being interconnected, along with all that comes with it. The pain of the world is experienced as despair, and a natural response to the grave injustices of these times is rage. Rage is a very natural part of the grief process, so it's important to honour this mobilising energy as it moves you into passionate and creative action.

6. Empowerment: This is the final stage of the grief process. As we come back into our bodies and open ourselves to feeling the pain of the world, digesting this traumatic experience, we expand our sense of self to include the more-than-human world, and a great amount of energy and power that was previously stuck in denial, now becomes unleashed. Facing our feelings about the state of the world is actually a very essential step toward embodying active hope that is necessary for doing all that you can to care for the earth. We become honed to our brilliance, as we begin to understand the nature of this energy, and learn how to channel our righteous rage into meaningful and creative action.

For more in-depth discussion visit: https://www.wayofbelonging.com/post/holding-the-weight-of-the-world-working-with-eco-grief-eco-anxiety



Fostering Resilience

The following are ways that you can "futureproof" yourself internally and externally. I'll go into a little more detail regarding building mental resilience, as this seems like the cornerstone for being able to process and respond to the Metacrisis, but the bulk of the other actions presented are relatively self explanatory. Cultivating a mindset and lifestyle that can withstand uncertainty, stress, and the profound challenges that are likely to arise, is crucial to moving forward. By integrating whichever of these strategies you can into your life, you can build the resilience, strength, adaptability, and hope needed to face the challenges of our changing world.

Mental Resilience:

Cultivate Mental Resilience: It's a balancing act between keeping up with the latest information on climate change, politics etc, and not getting bogged down, or feeling overwhelmed. It's not an easy task, but being mentally prepared, and understanding the predicaments we face, ultimately helps us to be stronger and more resilient, come whatever may.

Educate Yourself: Knowledge reduces fear. Understanding the causes, effects, and possible solutions to climate change helps you feel more in control and less overwhelmed. It's important to keep up with credible sources of information and be aware of the latest developments, but be careful not to be consumed by them. While staying informed is important, constant exposure to negative news can be overwhelming. Set boundaries on how much media you consume, and seek out stories of hope and positive change.

Embrace Adaptability: Accept that change is inevitable and try to embrace challenges as opportunities for personal growth. Adapting to change and learning from adversity builds resilience over time. This might involve learning new skills, simplifying your lifestyle, or making contingency plans. Viewing challenges as opportunities for innovation and creativity can help you approach them with a problem-solving attitude rather than feeling overwhelmed.

Focus on Action: Taking tangible steps, such as reducing your carbon footprint, supporting sustainable initiatives, or advocating for policy changes, can create a sense of agency and purpose. Being prepared within ourselves, our homes, and in our communities, ultimately helps us be stronger and more resilient.

Foster a Support Network: Strong social connections are a key component of resilience. Try to surround yourself with supportive friends, family, or groups that share your concerns and values. Talking about your fears and concerns with others can be a powerful way to process emotions and gain different perspectives, while working with others in your community to address climate challenges fosters a sense of belonging and shared purpose, which can counter feelings of isolation or helplessness. We all need a support group of like minded friends or family to share experiences with, both good and not so good. You could always join a group to learn new skills.

Gratitude: The old cliche of counting your blessings. It's now been proven that focusing on the good things in your day, before you go to sleep, helps to improve your mental health and optimism. What were your 3 best things today? Start actively appreciating the good things in your life.

Creativity: This is great for one's well being, whether it's listening or playing music, doing something arty, writing, gardening, reorganising your space, singing, sewing or knitting, dancing, anything that you can put a bit of yourself into. You don't need to be good at it, just able to lose yourself in it.

Meditation: The benefits of meditation are tremendous. It can reduce stress and anxiety, can help enhance your mood, promote healthy sleep patterns, and boost cognitive skills such as improved memory and attention span, increases pain tolerance, and can even decrease blood pressure. Learn some breathing techniques, and take five or ten minutes out once a day to spend that time meditating.

Get Outdoors: Regularly connecting with the natural world can provide a sense of peace and perspective, helping you to stay grounded. Exposure to nature has been linked to a host of benefits, including improved attention, lower stress, better mood, reduced risk of psychiatric disorders and even upticks in empathy and cooperation. Practices like gardening, hiking, or conservation work can foster a deep sense of connection and responsibility for the environment.

Be Present: Accepting our future and then being present, makes you have so much more gratitude for the here and now. It's vital not to end up paralysed by a sense of fear when considering the future, much better to be making the most of everyday and appreciating life for what it still has to offer.

Balance Realism & Hope: Although this may seem counterintuitive, try to make peace with recognising that climate change will be impacting the near future. Cultivate the ability to live with uncertainty by focusing on what you can control and accepting what you cannot. Try to focus on positive stories of resilience, innovation, and recovery. Hope is not about ignoring reality but about believing in the possibility of positive outcomes and working towards them.

Be Gentle: Take time out to clear your head, read a book, watch a tv show, do whatever you need to do, to have a break from the Metacrisis. It's ok to prioritise some downtime.

Environment/Water:

Educate Others: Learn about methods of gardening that do not rely on pesticides and weed killer, learn about companion planting and insect friendly flowers, this will encourage a wide range of bugs and birds to live in your garden. Share that information. Explore other topics with people.

Carbon Offsetting: Although it doesn't fix the greater problem of creating the carbon output, it's better than doing nothing. Unfortunately at the time of writing, we don't know of anywhere here in New Zealand that provides offsetting services, so planting our own trees will have to do in the meantime.

Litter & Rubbish: Don't throw rubbish out of your car window, or leave it where it can be blown around. Pick up any rubbish you see when out walking. Much of the rubbish on the roadsides gets washed into storm drains, then into our waterways and eventually into the sea.

Trees: Plant trees, free trees from weeds or blackberry, water stressed trees, find someone that has the space to plant some.

Mulch: Use old cardboard boxes, newspaper etc topped with dried grass clippings, dried leaves, hay or straw. Bark mulch is ok for flower beds. This all keeps weeds down and prevents water loss in hot weather.

Lawns: Mow your lawns less often, now there's a challenge! This preserves the habitat for the numerous bugs and critters that live all around you.

Environmental Products: Use eco-friendly cleaning products, hair and body washes, or just use plain soap, and don't forget the car wash suds (if you wash your car!).

Turn It Off: Don't leave taps running if you don't need to. Choose eco functions on washing machines or dishwashers if you can, and only rinse dishes that are seriously dirty.

Showering: Challenge yourself and your family to having only a four minute shower.

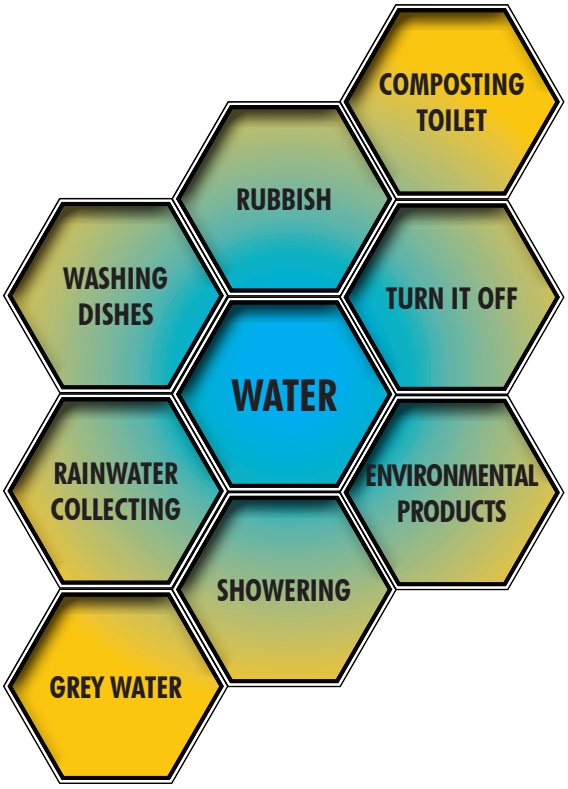
Grey Water: Can you set up a system for reusing your grey water from showers, the washing machine etc.

Collect Rainwater: Consider setting up one small rainwater tank, maybe off a shed or garage roof. It could collect into a dustbin sized container and could supply you with fresh drinking water, or water for your plants.

Washing Dishes: If you don't have a dishwasher it's more economical to wash dishes in the sink or a bowl rather than under a running tap.

Composting Toilet: Why not install a composting toilet? They save water and do not need processing in big sewage ponds which often end up polluting our waters. The compost created can be used after a year or two for feeding trees and shrubs.

Donate: Give to a cause that supports protecting our natural environment, eg. Forest & Bird, Greenpeace, World Wildlife Fund, or other reputable causes you might know of.



Food:

Eat Healthy: It's good for you and your family. Takeaways now and then, not every week. Vegetables are cheap and good for you, and often work out less expensive. A general guide is to shop around the outer edges of the supermarket where the unprocessed products can mostly be found. Beans and lentils are a great addition helping to bulk out meals and add nutrients.

Cut Down on Meat: Cutting it back, even a little bit is a good start. Try smaller meat portions, or if meat-free meals are a new idea, try to introduce one meat-free recipe each week.

Free Range: If you are eating less meat perhaps you can afford to buy free range. Chickens work out great value, and they (along with fish) do not produce methane.

Sustainable Fish: Eat only sustainable NZ fish, at this time this seems to be Lemon Fish and Gurnard in Hawkes Bay. Sadly Tuna is not a good choice.

Organic: Part of eating healthy, try to avoid vegetables that have been grown with pesticides or sprays.

Cook Extra: Cook enough for a couple of nights, even extra pasta, rice or spuds makes the next meal easier.

Leftovers: Have them for lunch or freeze them.

Stocks & Soups: Learn to make stock or soups using the odds and ends of veges, meat bones etc.

Fridge Supplies: Try making a "what-have-we-got-left-in-the-fridge meal" instead of having a set plan for what you want for dinner?

Best Before: You can use food items which are after their best before date as long as they look and smell okay. Anything past its use by date is not okay. Places like Reduced to Clear are great to get cheap items that are fine, and would otherwise be thrown out.

Shopping Lists: Shop with a list and buy what you need for the next week or two. Of course your usual staples like rice and pasta get to stay.

Minimise Packaging: Choose items with less plastic. Recycle soft plastics, check out 'soft plastic recycling schemes' to find your closest drop off point.

Recycle Bags: Reuse bags from bulk bin purchases, use cloth bags for vegetables etc.

Storage: Store food so that the newest is at the back of the pantry or fridge (don't forget the freezer) and you can easily use up the older stuff first. Check your fridge contents every so often to ensure nothing is expiring or about to go to waste.

Eco-Friendly: Try to use products that have minimal environmental impact, e.g. oat milk has much less impact than dairy milk.

Homemade Cleaners: There are many home cleaners you can make, for instance citrus peels can be added to a jar of vinegar to make a fresh smelling cleaner.

Composting: Learn about composting, a worm farm or bokashi bucket is a great way to feed your gardens. Maybe you can set up a system with family or neighbours, or share community gardens.

Seed Saving: Saving the seeds from your own veges and plants is a great way to build your own resilience, and the plants get stronger, adapting to your localised environment.

Grow Your Own: If you don't have a vege garden, even growing some silverbeet or lettuces in a bucket is a good start. Learn how to grow sprouts, and alfalfa and mung beans are easy too.

Locally Produced: Buy food that is locally produced and in season, supporting your local community and cutting back on food miles.

Resources:

Resist Consumerism:
Adopt the new shopping mantra "do I need this, or do I want this?", and try to avoid unnecessary purchases. Look up "The Buyerarchy of Needs" (it's a mouthful I know).

Battery Powered: Try to buy quality battery powered tools such as drills, lawnmowers, chainsaw etc, they don't use petrol, are cheaper to run, and can be much more convenient to use.

Resources: Having some common resources on hand, especially if you can buy bulk, works out cheaper and means you have resources on hand if needs be.

Sharing: Are there some items you can share with family, friends or neighbours? A bit challenging but there might be something, make sure you all agree on the terms of sharing such as maintenance and repairs.

Quality Items: If you are purchasing a new item, try to get the best quality and most durable option, not necessarily the cheapest option. You should save money in the long run.

Mend or Repurpose: There's loads of info on google these days on how to fix things.

Give It Away: Pass on items that are no longer needed, to others or op shops, as long as they are in good condition.

Babies & Children: If you have a baby or young children, get or make some soft cloths instead of disposable wipes, carry some damp ones in a bag or pot when you go out. Revisit reusable nappies, there are some great ones available now.

Consumables: Toilet paper and hand towels can be purchased in bulk by mail order and come without extra packaging. Greencane supplies bulk, and makes them from sugarcane and bamboo.

Minimise: Reduce plastics, recycle whatever you can, especially if you don't get your rubbish collected. Check out your local dumps recycling and your local Environment Centre. Reuse your plastic bottles to get refills of hand soap, washing up and laundry liquid, oils and vinegars etc.

Takeaways: Use your own coffee cup and keep it in the car, also having some containers for takeaways can be very handy.

Ethical Investment: If you have money invested, check to see that it's being used ethically to support the changes we need to see. Simplicity seems to do a good job of ethical investment.

Paint It White: Did you know if you paint your house roof white, an average roof of 100 sq metres can reflect enough sun in a year to cancel 10 tonnes of CO_2, or approx 2.5 cars worth.

Natural vs Powered: Do simple jobs that hand or choose the power-free option, e.g. using a clothes line rather than a drier.

Screen Time: What about a screen free sunday each week for everyone in your home? Perhaps it would be a good time to pursue some other interests, or have some old fashioned family time playing board games or going for a walk.

Streaming: Apparently if you watch movies at a slightly lower definition it can effectively save power.

Turn It Off: Switch off lights etc when you are not needing them. If you have a heater on, keep the doors shut, and close curtains at night to keep the warmth in.

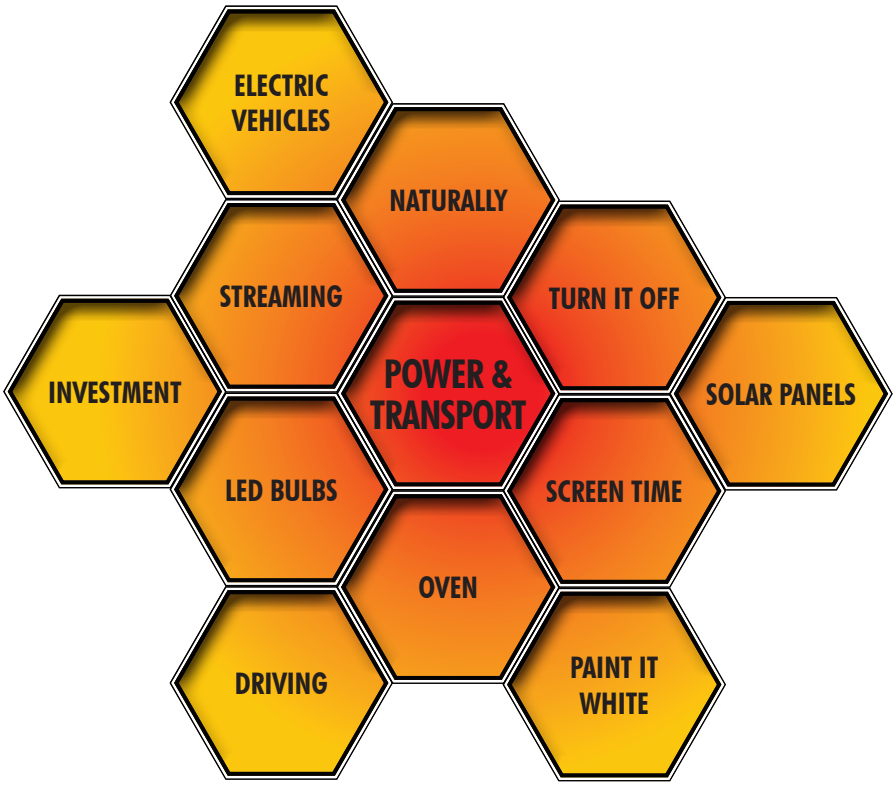
LED Bulbs: Replace light bulbs with LED bulbs.

Oven Efficiency: If you have the oven on, use it to cook several things at the same time.

Solar Panels: If you own your own house it would be great to investigate getting solar panels. They're a great way to be resilient in times of power cuts or emergencies.

Driving: When going to town, try and do all your jobs in one trip, and of course try and carpool for outings.

Electric Vehicles: Explore the option of getting an electric or hybrid car. This is sure to get easier over the next few years, although the pros and cons still need to be ironed out.



"FAD": Frequently Asserted Denials

"That's just called weather, not climate change. Carbon dioxide isn't actually increasing, and even if it is, the increase has no impact on the climate since there is no convincing evidence of warming.

Ok, even if there is warming, it's just due to natural causes, and on the off chance the warming cannot be explained by natural causes, human impact is only small, and the impact of continued greenhouse gas emissions will be minor.

Ok, ok, even if the current and future projected human effects on Earth's climate are legitimate, the changes are generally going to be good for us.

Well, whether or not the changes are going to be good for us, I can't make a difference, and why should I even try, when other people aren't doing anything?

At the end of the day, humans are good at adapting to changes. Besides, it's too late to do anything about it, and a technological fix is bound to come along and sort it out."

The following are some of the counter-narratives that are bandied around in regards to climate change and its legitimacy. It's not an exhaustive list, and there always seems to be some new way to dispute the science, but at least this addresses the most common points.

"The earth is always changing; this is just a natural part of the cycles."
While the Earth has experienced natural climate variations throughout its history, the current rate of change is unprecedented. Natural cycles, such as Milankovitch cycles, occur over tens of thousands of years, but the rapid warming we've observed over the last century aligns closely with the increase in greenhouse gases from human activities. This accelerated change is not explainable by natural cycles alone, and is a clear indicator of human induced climate change.

"The impact of climate change is being over-exaggerated."
The impacts of climate change are well documented and observed in real time. Rising sea levels, more frequent and intense storms, heat waves, droughts, and wildfires are already affecting ecosystems and human communities. The scientific community emphasises that these impacts will only worsen if we do not reduce greenhouse gas emissions. Climate scientists have been walking a tightrope of spreading awareness, and if anything, they have been downplaying the effects of climate change, not over-exaggerating it. The risks of underestimating these impacts are far greater than the consequences of taking action.

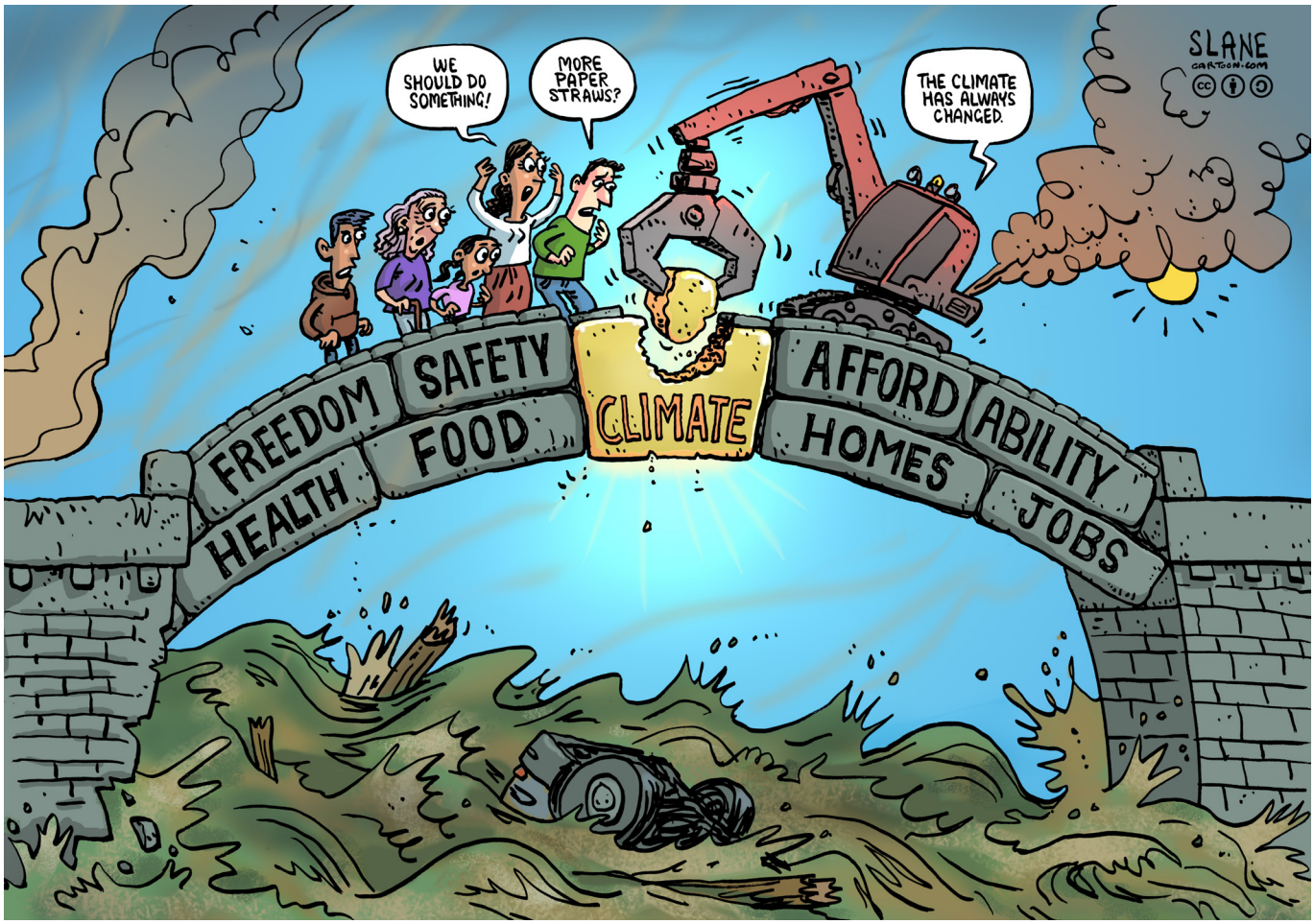
"There is no consensus among scientists."
There is absolutely overwhelming consensus among climate scientists that climate change is real and primarily driven by human activities. Multiple studies show that over 97% of climate scientists agree on this point. The consensus is based on extensive research, peer reviewed studies, and decades of data collection. Claims of disagreement are often based on misinformation or a misunderstanding of the scientific process.

"Climate models are unreliable."
Climate models have proven to be reliable tools for predicting future climate scenarios. They are based on fundamental principles of physics and have been refined over decades. While no model is perfect, they have accurately predicted many trends we see today, such as global temperature increases and sea level rise. The uncertainties that exist tend to concern the magnitude of changes, not the direction. Ultimately models consistently show that continued emissions will lead to significant warming.

"Actually, it's getting colder."
Global average temperatures have been rising, not falling. While there can be short term regional variations and "colder than average" periods, the overall trend is one of significant warming. The last decade was the warmest on record, and heat records have been falling steadily over the past few years. Localised cold weather events do not negate the broader trend of global warming.

"Carbon dioxide is a scapegoat, plants will be better off with more of it."
While CO_2 is necessary for photosynthesis, excessive levels lead to detrimental effects. Higher CO_2 levels contribute to climate change, which disrupts ecosystems, reduces biodiversity, and leads to more extreme weather events. While some plants may benefit from higher CO_2, the overall impact on agriculture and natural ecosystems is negative due to the associated warming, changes in precipitation patterns, and the increased frequency of extreme weather.

"The global elite have an agenda."
The claim that climate change is a hoax, perpetrated by the global elite, is a conspiracy theory with no basis in fact. Climate science is based on rigorous research conducted by scientists worldwide, largely independent of political agendas. The idea of a coordinated global conspiracy among scientists, governments, and international organisations is giving the global elite too much credit. Do not attribute to malice what can so easily be explained by stupidity. Even if the global elite hunker down in their bunkers for a century, the earth won't be habitable if we do nothing to mitigate the worst of climate change now.



"Technology will save the day."
While technological advancements are crucial in mitigating climate change, relying solely on future technology is risky and can delay necessary action. The technologies we need to reduce emissions, such as renewable energy, energy efficiency, and electric vehicles, already exist and are being deployed, though not at enough scale to tackle the problem. Waiting for new, unproven technologies to save the day overlooks the urgency of the problem and the need to act now.

"Our impact is negligible, so why even bother doing anything?"
Every action counts when it comes to combating climate change. While individual actions may seem small, collective efforts can lead to significant reductions in greenhouse gas emissions. Additionally, reducing emissions is not just about preventing future damage; it's about improving public health, creating jobs in renewable energy sectors, and preserving the planet for future generations.

"We fixed the ozone hole collectively, we can fix this."
The success in addressing the ozone hole is indeed a positive example of global cooperation, but the challenges posed by climate change are more complex. The ozone hole was caused by a specific group of chemicals (CFCs), and their reduction led to recovery. Climate change involves multiple sources of greenhouse gases across various sectors, making it a more systemic issue. The success of the ozone treaty shows that international cooperation can work, and it provides a hopeful precedent for tackling climate change.

"Humans have always lived under the shadow of some looming catastrophe, we'll be fine."
Comparing climate change to past threats oversimplifies and underestimates the unique, complex, and unprecedented challenges it presents. Unlike past threats, we face a global, long term crisis, driven by human activities, with potentially irreversible and catastrophic consequences. Its scale, urgency, and ability to exacerbate other global challenges make it uniquely dangerous. Dismissing it all as "just another threat" fails to recognize the sheer enormity and interconnected nature of its impacts, which demand immediate and sustained action.

The Left and Right Hemispheres

The left and right hemispheres of the brain perceive the world in quite different ways. Viewing through the left hemisphere gives a narrow focus where the world is made up of little pieces of information. It is analytical and logical, seeing events as isolated, lacking connections, and categorising items so they essentially become abstracted and lifeless. Humans are separate from nature, and nature is merely a resource to be utilised. The right hemisphere on the other hand, sees that everything is ultimately connected, a whole rather than the individual components. It recognises the implicit nature of complex connections and how all those interactions weave into something greater than the separate parts. Humans are part of nature, and nature is something to be revered.

"So you've got a kind of mechanistic, reductionist world subtended by the left hemisphere, which is just a representation or a useful diagram, and you've got a living, complex world on the other hand, which has characteristics which are very much harder to pin down, that involve all the richness and meaning in life." Iain McGilchrist.

The left hemisphere's interpretation of the world is not in and of itself inherently wrong. It becomes problematic when in combination with the dark triad personality traits. These are **Narcissism** (self absorption), **Psychopathy/Sociopathy** (lack of empathy for others and nature), and **Machiavellianism** (strategic exploitation, marked by a willingness to manipulate others). In combination with the left hemisphere, these traits culminate in prioritising the gains of individuals and companies over other people and the natural environment. Unfortunately it is estimated that about 12% of corporate senior leadership displays a range of psychopathic traits, and the people who are often drawn to politics tend toward this sphere of personality, lured by the temptation of power.

Understanding the Metacrisis through the lens of the Right Hemisphere

Ok, so let's frame the Metacrisis through the lens of the right hemisphere to give us some alternative perspective. If we approach the interconnected global challenges in this manner, it involves engaging with them holistically, intuitively, and creatively. We want to look at integrating complex patterns and connecting emotionally and empathically with the world. Easy right? Here's what that might look like:

Holistic Perception
Don't let the term holistic put you off! Rather than breaking down each term individually, the right hemisphere would perceive these issues as an interconnected web, where every thread is woven into the fabric of life on Earth. It would sense the intricate dance between nature and humanity, recognizing that the disruption of one element, such as the Amazon Rainforest, ripples across the entire system, affecting climate, biodiversity, and human survival.

Intuitive Understanding
Instead of relying solely on data and linear cause and effect logic, the right hemisphere might grasp these challenges through intuition; sensing that when we pollute the oceans or clear the forests, we're not just harming isolated environments but we're also disrupting the delicate balance of life itself. The collapse of ecosystems or the decline of insect populations would be felt as a deep, visceral loss, a disconnection from the natural world that sustains us.

Emotional and Empathic Connection
The right hemisphere is attuned to emotions and empathy. It would likely feel the suffering caused by food insecurity, water shortages, or mass migration on a deeply human level. The ideas of health problems or declining mental health wouldn't just be statistics, but real human experiences of pain, stress, and despair. This perspective would evoke a compassionate response, urging us to care for the Earth and each other, not just out of necessity, but out of love and empathy.

Creative and Symbolic Thinking
The right hemisphere might approach the solutions to these challenges in a more creative and symbolic way. It would see renewable energy not just as a technological shift, but as a symbol of humanity's potential to harmonise with nature. Transitioning could be imagined as a journey, a collective quest to move from a place of disconnection and destruction, to one of renewal and rebirth.

Pattern Recognition
Rather than isolating each issue, the right hemisphere would recognize patterns and themes. It might see the recurring theme of imbalance, whether it's in our climate, economy, or social systems, and intuitively understand that healing requires restoring balance at every level. It would perceive feedback loops as natural rhythms that can either spiral into chaos or harmony, depending on our actions.

Spiritual and Existential Reflection
Finally, the right hemisphere might frame these challenges in a broader, existential context, sensing that our current trajectory, driven by perpetual growth, consumerism, and denialism, is unsustainable, not just physically but spiritually. The concept of a finite planet would resonate deeply, reminding us that we are part of something larger, something sacred. The right hemisphere might inspire a sense of stewardship, urging us to protect and nurture the Earth as we would a beloved home or a sacred space.

Synthesis and Integration
In the end, the right hemisphere would seek to integrate all these elements into a cohesive whole. It would see the solution not as a series of isolated actions but as a profound shift in consciousness, a movement towards a more holistic, compassionate, and sustainable way of living. This perspective would emphasise the need for unity, cooperation, and a deep, intuitive connection with the world around us.

The challenges we face are not just problems to solve, but calls to reawaken our connection with the Earth, and each other. We want to rediscover the balance and harmony that sustains life, and to act from a place of deep empathy and creativity. Averting a catastrophe of Metacrisis proportions involves transforming how individuals, communities, and societies perceive and interact with the world. This shift would require a deep, collective awakening that integrates personal awareness, cultural values, and systemic change.

Here are some suggestions for how we could individually try and foster such a transformation:

Cultivating Awareness and Connection:
Encourage mindfulness and meditation practices that help people become more aware of their connection to the Earth and the natural world. This could include spending time in nature, practising gratitude for the environment, and engaging in rituals that honour the planet. We could use education not just to inform, but to inspire. Through storytelling, art, and narratives that emphasise our interconnectedness with nature, we could evoke a deep emotional connection, and of course highlighting stories of resilience, regeneration, and the beauty of sustainable living.

Transforming Economic and Political Systems:
Advocate for economic models that prioritise sustainability over perpetual growth. This could involve promoting circular economies, de-growth movements, and policies that support renewable energy and sustainable agriculture. Encourage active participation in political processes to push for systemic change. This includes voting for leaders who prioritise climate action, supporting policies that reduce carbon emissions, and holding corporations accountable for their environmental impact.

Shifting Values and Priorities:
Challenge the current definitions of success, which often prioritise material wealth and consumption. Promote values like well-being, community, balance, and harmony with nature as markers of a fulfilling life. Foster cultural shifts that prioritise ecological and social justice. This could involve celebrating indigenous wisdom, which often emphasises living in harmony with the Earth, and incorporating these principles into mainstream cultural practices.

Empowering Personal and Collective Action:
Support grassroots initiatives that empower local communities to take action. This includes community gardens, local renewable energy projects, and cooperative economies that prioritise sustainability. Promote a sense of global solidarity by connecting people across borders through shared goals and challenges. Global movements like *Fridays for Future* or *Extinction Rebellion* help create a collective identity focused on climate action.

Integrating Technology and Innovation:
Invest in and promote the development of technologies that reduce environmental impact, such as renewable energy, carbon capture, and sustainable agriculture. Emphasise the role of technology in supporting a shift towards a more sustainable way of life. Utilise digital platforms to spread awareness, mobilise action, and create virtual communities focused on climate justice. Social media can be a powerful tool for sharing information, inspiring change, and connecting like-minded individuals.

Building Resilience and Adaptability:
Teach resilience and adaptability as core life skills. This includes preparing communities for climate impacts, encouraging flexible thinking, and promoting adaptive practices in agriculture, infrastructure, and energy use. Integrate practices that promote emotional and psychological healing, acknowledging the grief and anxiety that often accompany awareness of climate change. Community support, counselling, and creative expression can help people process these emotions and turn them into motivation for action.

Embracing Ethics:
Encouraging the perspective that the Earth is sacred and all life is interconnected. This could involve integrating spiritual practices that honour the Earth into daily life, fostering a sense of reverence and responsibility for the planet. Promote ethical consumption and lifestyle choices that reflect a commitment to sustainability. This includes reducing waste, choosing eco-friendly products, supporting ethical businesses, and living more simply.

Creating Visionary Leadership:
Cultivate leaders who embody the values of sustainability, compassion, and foresight. These leaders, whether in politics, business, or community organisations, should inspire others to take action and lead by example. Empower the younger generation to be leaders in the climate movement. Encourage education and mentorship programs that give young people the skills and confidence to advocate for change and implement sustainable practices in their communities.

Engaging the Arts and Culture:
Use art as a medium to convey the urgency of the climate crisis and the beauty of the natural world. Music, visual arts, theatre, and literature can inspire emotional responses and foster a deeper connection to the Earth. Develop and popularise cultural symbols and rituals that represent the shift towards sustainability. These symbols can serve as reminders of our collective responsibility to care for the planet.

Envisioning a Regenerative Future:
Encourage people to envision a future where humanity lives in harmony with nature, sharing positive narratives about what a sustainable, regenerative world could look like, emphasising abundance, creativity, and cooperation. Engaging communities in collective imagining exercises, where people come together to dream about and plan for a sustainable future, can foster a sense of hope and agency, motivating people to take concrete steps towards making that future a reality.

A Few Good Resources

Documentaries:

Home (2009)
Once You Know (2022)
Breaking Boundaries (2021)
A Life On Our Planet (2020)
Eating Our Way to Extinction (2021)
Chasing Ice (2012)
Chasing Coral (2017)
Seaspiracy (2021)
The Grab (2022)

Books:

Overshoot, William R Catton Jr
The Climate Book, Greta Thunberg
Regenesis, George Monbiot
Limits to Growth, Dennis and Donella Meadows, Jørgen Randers, William Behrens
Dirt: The Erosion of Civilizations, David Montgomery
Post Growth, Tim Jackson
Take Heart – Encouragement For Earth's Weary Lovers, Kathleen Dean Moore
Collapse: How Societies Choose to Fail & Succeed, Jared Diamond
Breaking Together, Jem Bendell
(free here: https://lifeworth.com/BreakingTogetherEPUB.epub)
Deep Adaptation paper by Jem Bendell
(free here: https://www.lifeworth.com/deepadaptation.pdf)
The Busy Worker's Handbook to the Apocalypse,
(free here: https://cutt.ly/QwgSQsLP)

Podcasts:

Ashes Ashes
The Great Simplification
Breaking Down Collapse
Building Up Resilience
The Climate Deniers Playbook
Power, Limits and Prospects for Human Survival
Your Brain on Climate

Websites:

https://skepticalscience.com/
https://insideclimatenews.org/
https://climateandeconomy.com/
https://climateandcapitalism.com/
https://earthhow.com/climate-feedback-loops/
https://www.theguardian.com/environment/climate-crisis
https://www.resilience.org/stories/2018-12-17/the-big-picture/
https://www.overshootday.org/newsroom/country-overshoot-days/
https://www.newsroom.co.nz/sustainable-future/collapse-is-not-a-dirty-word
https://www.joboneforhumanity.org/20_worst_consequences_of_global_warming

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Life is not primarily about what we can do, but what we can honestly accept. This is because the sum of what we honestly accept, strongly influences what we can accomplish in life, while the sum of things we dishonestly reject, contributes to the scope of the harm we cause with our mistakes.

I used to worry about unduly upsetting people with my ideas, but it proved not to be the case in most instances. People who value their emotional addictions more than what is real simply let the ideas bounce off. All I can do is make the ideas available, and perhaps point people to them if I think it may help. In the general din of our society and under the crushing burden of our expectations we cannot hear ourselves with clarity.

Sometimes we have to disconnect to grow because the expectations we value, hold us back, and let's face it, most of our expectations are not derived from ourselves, from our own values and our own sense of conscience, but they're taught to us when we're children. We must pursue growth, and this is best sought through pursuit of honest self acceptance so that we might someday constructively and collaboratively work on remedying our larger scale issues.

I have to wonder what would happen if groups of people chose better ways, together. I think there would be a great synergy of effect, the inverse of the way suffering radiates out from a victim of violence into the lives of the people who care for them. I think what we would see, instead, is a strengthening of community and more equitable treatment of everybody involved. And then I try to imagine what millions of people might do with it.

Extracts from hiddenworlds.ca/writing/

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This document and the graphics are available for free at:

themetacrisis.info

You can also email me at *g.speeden@gmail.com*