Ideas Café
exploring ideas shaping the future

This & That
2026 – 004/H

Climate Change – The Future of Humanity

Backdrop

The film, *A State of Emergency,* was released in April 2026 for roll-out by UK community groups. It stems from the National Emergency Briefing on 27 November 2025 at Central Hall, Westminster. An invited audience of over 1,200 attended, including MPs, peers and leaders from business, culture, faith, media and sport. Little has happened since it seems.

The high profile briefing and 50 minutes film was the idea of Nick and Simon Oldridge who pump-primed funding. Simon used to work for Ernst & Young and his brother Nick is in ethical insurance. Key data was provided by Mike Berners-Lee, Professor in Practice at the Environment Centre of Lancaster University. Media input was by the environmentalist Chris Packham. The focus is world climate and nature - in crisis and a critical emergency.

Core content is from leading scientists, plus contributions from a former military general and public figures. After a brief overview, the film explores nine strands:- the trajectory of planetary warming and emissions; climate tipping points; weather extremes; ecosystems & nature breakdown; food security; overwhelmed national health services; national security; economics; energy transition. All nine are inexorably linked.

The aim is to force the Government to host a live and prime-time TV National Emergency Briefing. This has been resisted. Film creators claim the public have been kept in the dark on climate change that potentially could lead to economic and societal collapse. Measuring risk is highly complex, fraught and judgemental. Risk is compounded by unknown events and those occurring at any time in a highly fragile world. Hybrid war is a prime example.

The Stark Reality

In business a 'do nothing' strategy means meandering along much as we are with maybe an occasional tinker here and there. If world policies continue, the planet is on track for circa + 2.8^{0} C warming by 2100. The critical + 2^{0} C threshold is likely to be breached between 2040 and 2050 says UNEP, the United Nations Environment Programme.

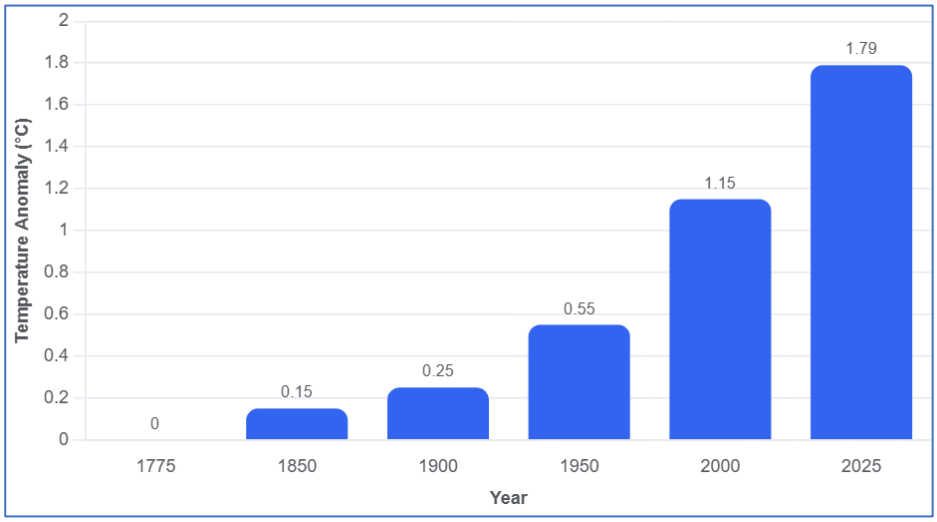
At + 2^{0} C extreme heatwaves, formerly once in 50 years, become 5-6 times more frequent. Global river flooding increases by 170% and sea levels continue to rise. Expect the global economy to shrink by about 11%. Hundreds of millions of people will suffer water shortage.

An ice-free Arctic Ocean is an enormous planetary heat amplifier in contrast to sea ice, a giant mirror. It reflects up to 80% of the sun's solar energy back into space. When that ice melts, the dark open ocean water exposed absorbs 90% of the solar heat that is trapped.

This domino impacts nature, wildlife and entire eco-systems, not least the Gulf Stream and disruptions to ocean currents. Fresh water from melting Arctic ice and Greenland's glaciers sits on the sea surface like a lid, causing the entire global conveyor belt to stall or collapse.

The Global Picture

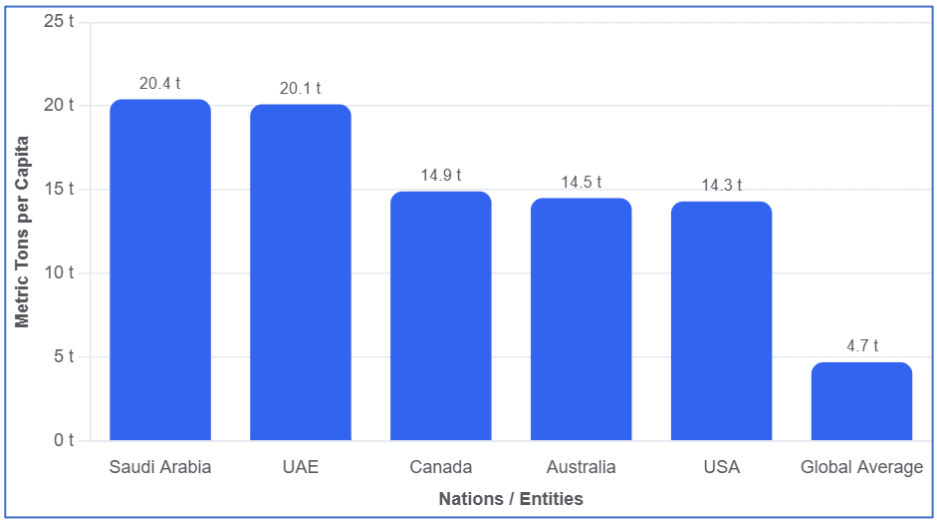
The baseline of 1775, soon after start of the industrial revolution, charts temperature rises for the next 250 years. Between 1950 and 2,000 increases were huge and even more so since the millennium. The trajectory is alarming. So are the consequences.



Take the effect on South-Asia in 2050, unless checked. The extensive low-lying river delta of Bangladesh means displacement of one in seven. In Vietnam, a third of the Mekong Delta may be under water. The loss of rice production knocks onto the food security of South-East Asia. The Philippines archipelago of 7,000 islands lies directly in the typhoon belt. Millions will be affected. Western Europe may experience hyper-extreme winters, with a potential collapse in agriculture. USA coastal cities face flooding given tidal shifts.

As the planet nears + 2° C, Arctic warming is four times faster than the global average. The vast expanse of permafrost holds twice as much carbon as the atmosphere. As permafrost starts to thaw, incredibly more potent methane traps the heat. Worse horrors unfold as the temperature rises well beyond + 2° C on reaching 2100. Not a reason to celebrate, this is a catastrophe based on projected data. Can nations act in time and will they?

The top five total carbon emitters are shown as per capita tonnage. CO_2 comprises 75%-80%. The balance consists mainly of methane, nitrous oxide and fluorinated gases.

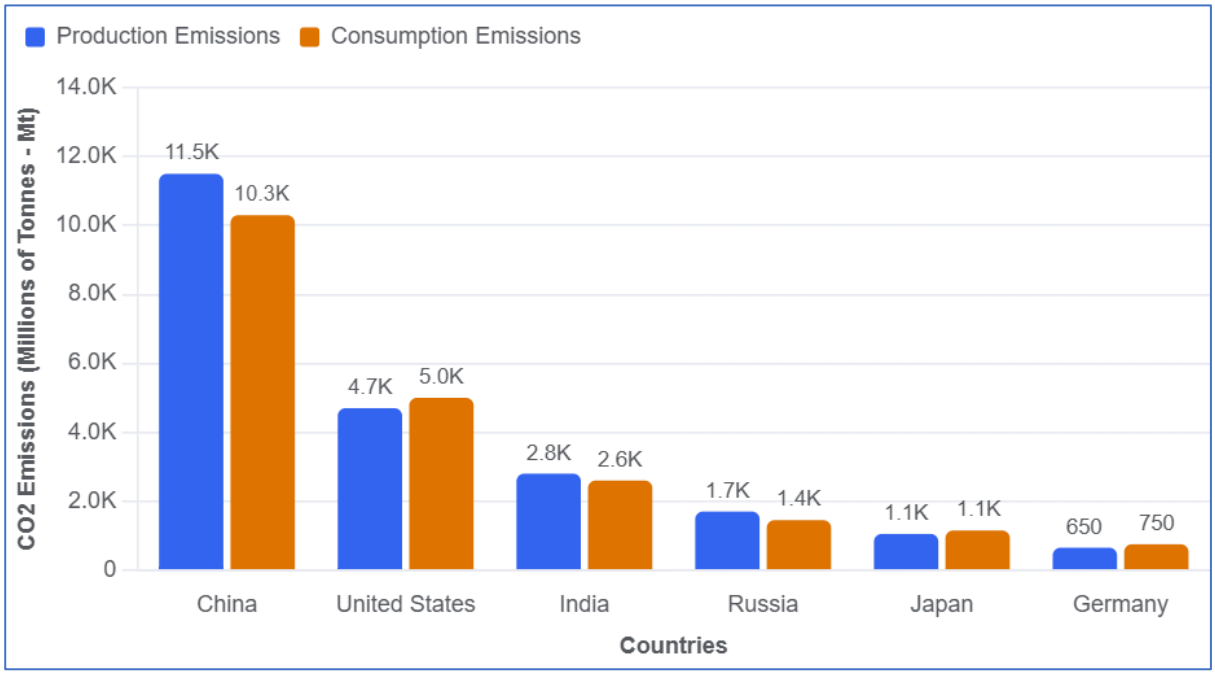


Saudi Arabia heads this at 20.41 tonnes per person, closely followed by UAE at 20.11. Next is Canada at 14.91, then Australia at 14.51 and USA at 14.31. The global average is 4.71.

Whilst a downwards shift to service-based industries, renewables and greater efficiency of vehicles and appliances, total carbon emissions remain very high. The USA footprint is roughly 6.2 - 6.3 billion metric tonnes. This is exceeded by China at 15.5 to 16.5 billion. India is third at 4.1 - 4.3 billion. The UK is way below at 380 - 400 million tonnes.

Wealthiest nations in terms of gross domestic product are the highest emitters of carbon of all types. China emits significantly more than all other nations but its per capita rate at 8.7 tonnes is about half that of the USA. The population of China is four times greater but as a major producer China's carbon footprint extends massively to consuming nations.

The table below is total carbon emissions, factoring in exports and imports. The vertical axis shows millions of tons and per country in thousands. The result is still billions! Inevitably there are slight discrepancies as different data sources are used.



The blue bar is production within each country. Consumption (tan bar) tracks lifestyle and choices in living in that country. Imports are included but not exports as consumption is by users in other countries. This illustrates a chain reaction of carbon emissions. The true UK carbon footprint is nearly twice its own emissions. The reason is imports. We are a major importer of electronics from China, cars from Europe and food grown overseas.

The daunting challenge is for mega economies to downscale all emissions. China, USA and India represent 42.3% of world population Can you seriously imagine any willing to limit their export trade, or production and consumption at home? Will the UK?

A global impetus is required but the track record hardly inspires confidence. Whilst the World Economic Forum is good at agenda setting and incubating global initiatives, it has a "say-do gap" on systemic issues. Then there is the UK Climate Change Committee and the United Nations Committees. They sound impressive but have zilch enforcement power. Of greatest concern is self-protection. Will rich nations step up to the plate and help a world in crisis? Morally they should as the greatest emitters of total carbon.

Emissions Trajectory to 2050 and 2100

China might reduce their carbon footprint by 27% by 2050 and USA by 23%, albeit from an incredibly high level. India is set to increase by 1.4 billion tonnes (45%) whilst Africa, given their population explosion, is set to increase by 0.6 billion tonnes (37%). It is a sobering, mind-numbing and depressing picture overall.

UNEP, and organizations such as Climate Action Tracker, project a long-term rise of 2.6^{o} C to 2.8^{o} C above pre-industrial levels by 2100. The probability of not exceeding 2° C by 2100 is virtually nil, given current policies and is extremely unlikely given pledges made to 2035.

The reality for 2050, say DNV Energy Transition, is that the 'carbon budget' to keep below 2° C will be exhausted by 2052. We are left with ingenuity, optimism and hope.

Our Human Existence

States Adam Schlosser, Deputy Director of the MIT Joint Program on climate change, the odds of human extinction are very low, if not zero. "Nuclear war and global pandemics: as an existential threat these are far greater than climate change." Wealthy nations like the USA may cope with compounding impacts of soil erosion, low crop yield, water shortages and even coastal flooding. Omitted are mass migration and flooding on a catastrophic scale, such as in South-East Asia. Not mentioned either is the capacity of humans to show great kindness – and a capacity to commit heinous acts in the quest for self-preservation.

Extraordinary ideas are called for if Earth as we know it is to be saved, directly impacting eco-systems and quality of life for millions if not billions. Balancing risk, uncertainty and optimism is fraught. Algorithm predictions and AI help to a point only. Nature alone will dictate the course of future events in regard to the environment. Ignore it at our peril.

The Mother of Invention

Staring down the barrel, necessity prompts wild and wacky ideas. There are plenty and more to come, most likely as urgency builds. Desperate times call for desperate measures. Two approaches are highlighted.

Breakthrough Energy & Industrial Remaking aims to eliminate the carbon footprint of humanity by replacing fossil fuels with unlimited clean energy. Nuclear fusion seeks to replicate the process, powering the sun to achieve net-energy gain without long-lived radioactive waste. Famously "30 years away" for decades, superconducting magnets, private investment and now AI may shorten the timescale.

Space-based solar power involves orbital satellites covered in photovoltaic panels to harvest solar energy in space where it is always sunny. Huge amounts of energy are beamed to Earth via microwaves or lasers. With rocket technology advances this has moved to the feasible. An ingenious idea is to use synthetic biology to consume carbon. Platforms like AlphaFold have revolutionized protein structure, thanks to AI.

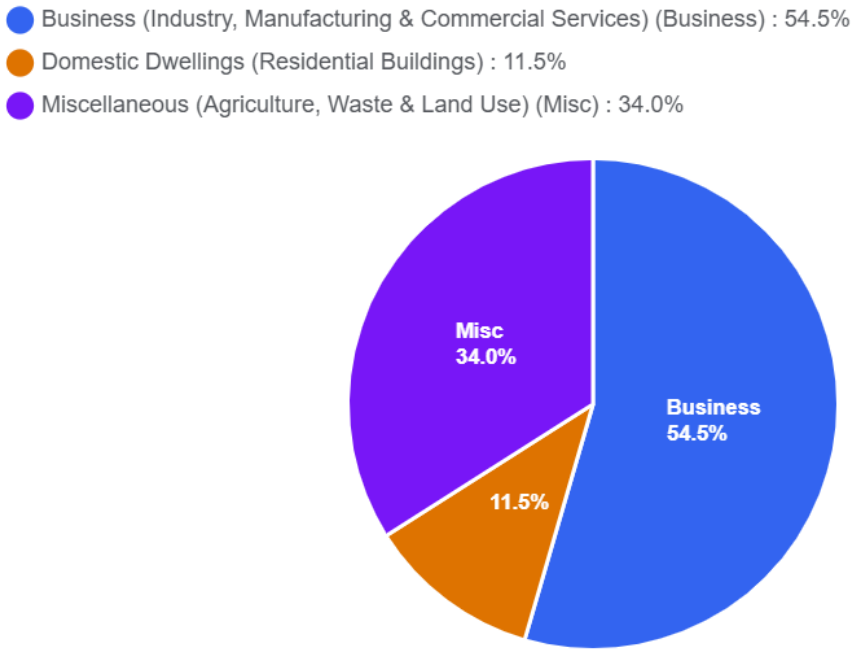
Climate Intervention (Geo-engineering) is often viewed as 'break the glass in case of emergency' insurance with aim of lowering global temperatures. The cooling effects of volcanic eruptions is mimicked in the upper atmosphere. The downside risks are of interfering with nature, such as monsoon cycles, and of geopolitical conflict.

Marine Cloud Brightening uses adapted ships to spray microscopic sea salt particles into low lying clouds over the ocean. The aim is to bounce sunlight back into space. Last in this

trio of ideas is iron fertilization of the ocean by dumping tiny amounts of iron dust into areas to trigger massive blooms of phytoplankton, locking away carbon for centuries.

Changing Our Carbon Footprint

Our domestic footprint is set in context of business and miscellaneous, a huge chunk of which is the agrarian economy. Domestic use is about a ninth of the total.

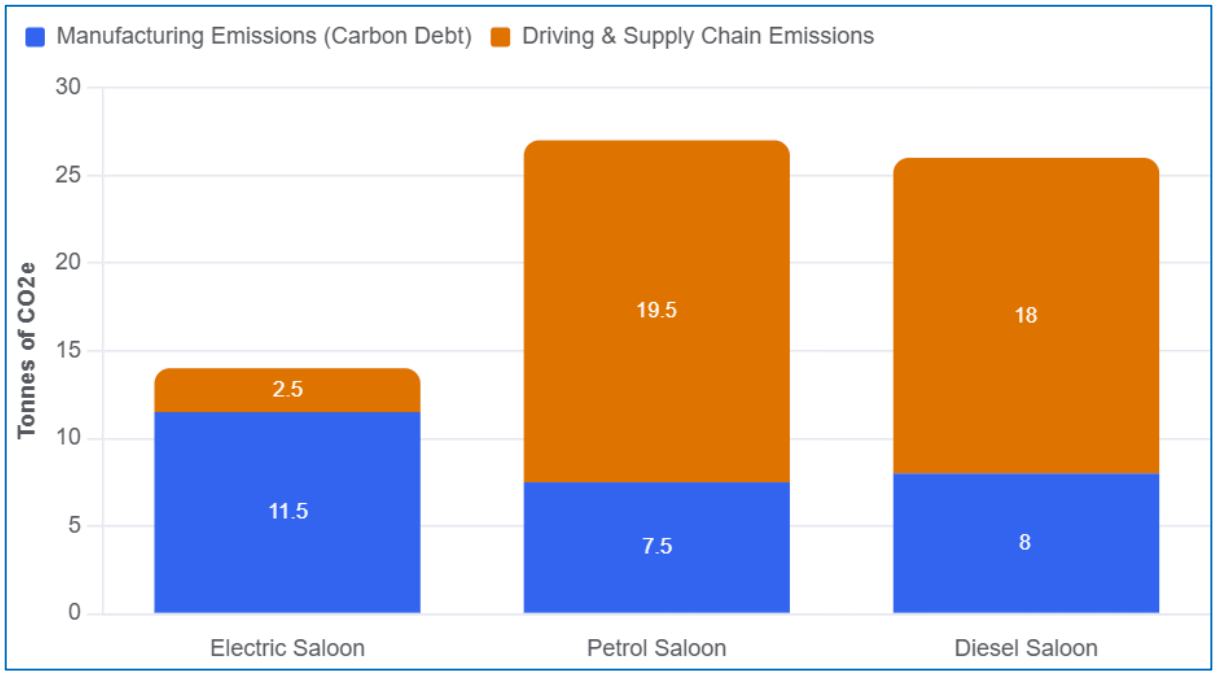


Whilst our carbon contribution is modest, relative to the global picture, many will feel compelled to play their part in reducing emissions. A dashboard overview helps.

Lifestyle Action	Annual Carbon Savings (Tonnes of \(CO_{2}e\))	% of Total 2050 Personal Budget (Target: 2.1t)	Impact Level
Living Car-Free	2.4 tonnes	114%	🔴 Extreme Impact
Avoiding One Transatlantic Round-Trip Flight	1.6 tonnes	76%	🔴 Extreme Impact
Adopting a Plant-Based Diet	0.8 tonnes	38%	🟡 High Impact
Switching to a Green Energy Provider	0.3 tonnes	14%	🟢 Moderate Impact
Comprehensive Household Recycling	0.2 tonnes	10%	🟢 Moderate Impact
Upgrading All Home Lightbulbs to LED	0.02 tonnes	1%	⚪ Low Impact

If car-free is impractical, such as family use, business, where time is even more critical, and no public transport exists or a viable choice, the best option is switch to an electric vehicle. An index ratio simplifies cost over a vehicle lifetime: electric 1.00, petrol 1.07 and diesel 1.07. Cost/benefit assumes 10,000 miles p.a. and takes into account all running costs.

The maths is more striking when looking at emissions. Whilst carbon consumption in making an EV is very high, the carbon payload thereafter is way lower when on the road. The greater the mileage the more apparent this becomes.



Air travel accounts for about 2.5% of global CO_2 emissions but the total warming impact is closer to 5% when factoring in high altitude effects. Short-haul is very carbon intensive, relative to take-off and landing. Climate scientists use a metric called Radiative Forcing Index (RFI). You generally have to multiply raw CO_2 emissions by two or three. A tonne emitted at sea level is immensely higher at 38,000 feet.

The third element affects mainly the agrarian economy. Beef consumes about ten times per kilogram in contrast to poultry. Some 80% of agricultural land is dedicated to livestock pastures and growing animal feeds. Opportunity value explores better and best options.

A fraction of that land can feed the same population. Put another way, animal agriculture occupies 77% - 80% of all agricultural land, yet provides less than 20% of human calorie intake and only 37% of protein. Yield is key. It takes roughly 50 - 100 times more land to produce one gram of protein from beef as it does from peas or tofu.

Water metrics are even more stark. The water footprint in litres is circa 15,400 for beef, 6,000 for pork and 4, 300 for poultry, about the same as pulses and legumes. Cereals and grains in contrast consume 1,600 litres and vegetables a modest 320 litres.

A key takeaway is that land use and yield are massively greater by switching away from beef, lamb and pork production – and water consumption is substantially less.

Not mentioned in the chart is energy consumption within the home, other than using a green energy supplier and switching to LED lightbulbs. The maths of heat pumps does not really stack up right now in terms of payback. A heat pump may also be impractical for many homes as a far larger cylinder is used than a conventional combi gas boiler.

Solar panels, whilst worth considering, come lower in the pecking order. Caution suggests tread carefully. Beware rhetoric versus reality in sunlight hours and intensity, such as the north-east compared with sunny south, and accuracy of actual payback years.

Sustaining Life and Health

Without water nothing survives! Yet the UK, ourselves included, continue to underplay a developing crisis. We are literally running out of water but why? The paradox is annual rainfall. Since the millennium it has not varied markedly, until the past couple of years.

Two mega mismatches explain the paradox: hot dry summers and warmer wet winters - and a dry south and south east in contrast to wet mountainous areas, such as Cumbria, Rhondda and Argyll and Bute.

With no new major reservoir built since 1992, though several are planned or underway, the population has grown by 10 million. The developing crisis has four distinct thresholds.

Crisis Level	Timeline / Trigger	Operational Reality
Serious	**Current State (2026)**	Widespread **hosepipe bans** and regional drought declarations during hot summers. Water companies run active leakage containment outbreaks as hot ground shifts and cracks pipes.
Very Serious	**Early to Mid-2030s**	Demand consistently outstrips storage during peak summer months. Rivers face severe ecological depletion, forcing water companies into **emergency drought permits** to pump from environmentally sensitive areas.
Extremely Serious	**Mid-2030s Onward**	Introduction of **Mediterranean-style water rationing**. Water supplies to residential areas are turned off completely for several hours a day to preserve macro reservoir levels.
National Crisis	**Approaching 2050**	The structural **5–6 billion litre daily deficit** goes unmitigated. Complete depletion of major southeastern aquifers and extreme reservoir lows. Emergency desalination and cross-country water grids become matters of national security.

Pouring Water Away

System infrastructure neglected over decades, before privatisation too, is on its last legs. The UK loses about 3 billion litres of treated water every day to a leaking pipe network. Chalk aquifers supply up to 70% of drinking waters in stressed areas like the south-east. With dry weather from spring to late summer, rain evaporates and doesn't filter down.

The repercussions of failing to invest vastly more impacts agriculture with plummeting crop yields and possible phased shutdown of industries relying heavily on water supplies, such as food processing plants. Then there are data centres that directly affect AI. They guzzle millions of litres of water every day. Do we need so many and so large?

Domestic consumers can play their part. A family of four could save a third, from 560 litres a day to 380 litres, as might a family of three and a couple. A single person can expect to save 25%. This means a 4 minutes max shower, dual flush toilets & cistern bags and more efficient use of washers (dishwashers and clothes). The overall saving is 1.2 to 1.5 billion litres daily. Plus the 3 billion litres lost to infrastructure leaks, this is a sizeable amount.

Areas of France are in crisis right now. Strict priority is given to drinking water, sanitation, healthcare and civil safety. Over 60% of departments are managing zones at the maximum crisis alert level. Even drinking water is an issue in some places.

Traditional UK water meters are buried in 'boundary boxes' on the perimeter of properties. This allows water companies to readily check and spot any leaks externally. The policy is moving towards smart meter roll-out with 10.4 million to be installed by 2030, about 50% nationwide. Advanced metering infrastructure (AMI) will allow users to download data.

The biggest challenge is better distribution of water to the right sectors at the right time. A national grid, whilst an attractive concept, is enormously expensive. Large reservoirs are cheaper. Three further options are: incentivise farmers to construct their own, utilise the existing canal network and have regional water sharing agreements. We need all three.

Building National Resilience

For those born between circa 1945 – 1954, and earlier, you will know and understand what life was like. These were dubbed the austerity years. Rationing ended only in 1954. Yes, looking back, times were hard but that was the norm. We knew no different.

Get on with life and 'make do and mend' were the credos. Camaraderie felt different then. We knew everyone in the road. Spud bashing, shopping trips on a Saturday and other chores were expected for our large family. We all had our designated jobs and 'mucked in.'

In some ways life is tougher now. The digital and AI age has stripped out swathes of 'white collar' jobs, 728,000 jobs have vanished in retail since early 2020 and hospitality has been hit. In other ways not so. Britain is now a welfare economy and has created a dependency culture. Outrageous or an unpalatable truth? Do some digging and be alarmed. Climate change is an overdue wake-up call. The clock is ticking. Zero hour is approaching.

Gathering Momentum

It is difficult to avoid puns. A head of steam is required but not consisting of hot air! We need a clear plan and pathway on how to anticipate and combat what is staring us in the face. Much like Covid-19 briefings, spell out the reality – and action required. Just do it!

An often missing voice in roll-out of the film seems to be younger people. They have scant opportunity to voice genuine concerns, anxiety and likely irritation with what they see as inertia. Uncertainty and hope are just two emotions. What exactly are politicians thinking and doing they may rightly ask.

A challenge is to create our own dashboard and targets. With an esprit de corps we can all make a contribution by brainstorming ideas. We will hear what MPs say on 16 November. Chris Packham has sufficient signatures to force a debate in the Houe of Commons.

Fixating minds of MPs is not only the parlous state of the economy but Russia which seeks to undermine a weak Europe. Many defence experts believe the goal is restoration of 1914 Imperial Russia and not just the former Russian Federation. This sounds ominous.

We live in highly dangerous times. There is an unfortunate knock-on for climate change in many ways, not least diverting capital investment when and where it is needed most.

Stuart

Stuart Sherring

2 November 2026