

Fresh lettuce in the stores



Three quarters of the world's land surface has been 'significantly altered' by human actions.

By John Gibbons

Apocalyptic 1970s movies coming true, mostly

THE WORLD is dangerously overheated and overpopulated, the oceans are dying due to global warming and food shortages are becoming ever more acute. Vast corporations and the super-rich control most of the world's assets and operate a virtual surveillance state to keep their populations in order while billions live and die in abject poverty.

This might sound like a fair summary of the state of the planet today, but the above scenario is in fact the storyline from half a century ago, for the 1973 film, 'Soylent Green', which I re-watched recently. And that far-distant year in which it was set? 2022.

One of the main protagonists, an elderly man called Sol, old enough to remember days of plenty, describes the vanished world: "You know. When I was a kid, food was food. Before our scientific magicians poisoned the water, polluted the soil. Decimated plant and animal life. Why, in my day you could buy meat anywhere. Eggs, they had. Real butter. Fresh lettuce in the stores".

His younger counterpart, Detective Thorn

replies wearily: "I know. Sol. You told me before. A heat wave all year long. A greenhouse effect. Everything is burning up".

The amazing new foodstuff, Soylent Green is supposedly made from plankton, but the detective unearths the grim truth, and the film ends with him uttering the famous line: "Soylent Green is people!".

Whether you buy into the slightly cheesy premise of human remains being a key part of the food chain, the film did tap into the very real ecological anxieties of the early 1970s.

These came to a head on Earth Day in the US in April 1970. This seminal event prompted president Nixon to establish the US Environmental Protection Agency, and with it, a raft of important environmental and anti-pollution legislation.

Viewed through the political prism of today's deeply dysfunctional and hyper-partisan US politics, it seems almost quaint to recall a time when people, irrespective of their politics, religion or skin colour, broadly agreed that eliminating deadly toxins from the air that they breathed and the water that their children

drank was a good idea.

For all the subsequent failures, the original Earth Day was the foundation event for the modern environmental movement, and ushered in enduring changes in public and political attitudes towards pollution in particular, especially where the evidence of its effects were impossible to conceal.

Air and water quality in the developed world improved markedly from the 1970s onwards,

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partially due to new regulations, but also thanks to the offshoring of much of the West's highly polluting heavy industries, which had triggered the crisis.

So, wealthy countries began to de-industrialise, not by consuming less and living more modestly, but by shifting the axis of production – and pollution – over the horizon, to poorer countries where environmental standards were mostly non-existent and where desperate workers could be more easily exploited.

Missing entirely from the environmental movement of the early 1970s was any consideration of global warming. While the concept was understood within the scientific community by then, it had zero traction among the wider public, and much of the scientific establishment treated it more as an academic conundrum about what could possibly happen in the twenty-first century.

The trace gas carbon dioxide (CO₂) is the atmosphere's key chemical thermostat. Dial it up, and temperatures rise, almost in lock-step.

In the 50 years since Soylent Green was released, global CO₂ levels have climbed inexorably, and now stand at 420 parts per million, a rise of 50% versus pre-industrial.

This may well be the most rapid shift in atmospheric chemistry in Earth's history.

The last time CO₂ levels were this high was in the Pliocene, an era several million years ago. Then, sea levels were 20 metres higher than today and global average temperatures were 3-4°C higher than today.

The unprecedented spike in atmospheric CO₂ levels since 1970 will continue to affect temperatures on this planet for centuries into the future.

Already, it has led to a rise in global surface temperature of nearly 1.2°C versus pre-industrial.

The red line for dangerous and irreversible changes to the Earth's climate system lies at an increase over pre-industrial levels of around 1.5°C. Today's levels are perilously close to that.

Based on current emissions, the global 'carbon budget' for +1.5°C will have been exhausted by 2030. To avoid breaching this danger line, global emissions will need to have fallen by a staggering 60% by then.

Nothing short of a highly improbable global political, economic, social and cultural revolution could deliver such a profound transition in time. In reality, our current economic model sees emissions actually accelerating at the time we need to be hitting the brakes and bracing for impact.

However dramatic the rise in global emissions and temperatures have been in the last five decades, this almost pales into insignificance when measured against the toll



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humanity has taken on the natural world over this period. We have eradicated almost two thirds of all the wild mammals, birds, fish and reptiles in just 50 years.

The last time a global mass die-off on this scale occurred was some 66 million years ago, in the wake of the asteroid impact that led to the extinction of all non-avian dinosaurs.

Researchers used the term 'biological annihilation' to describe the nature and extent of what they term the 'frightening assault on the foundations of human civilisation'. While this carnage ultimately threatens humanity, it has already laid waste to hundreds of millions of years of evolutionary progress and, in the process, brutally simplified countless once-complex ecosystems.

Today, over three quarters of the entire world's land surface has been 'significantly altered' by human actions, with tens of millions of hectares of forests razed and cleared for agriculture. The hunting of wildlife for food is another force accelerating extinction, with at least 300 species of mammals facing near-term extinctions as a direct result of the bushmeat trade.

At sea, the anarchy is even worse. Over 90% of the world's large predatory fish, from sharks to tuna, marlin and swordfish, are already gone, with many species now on the brink of extinction.

The vast fishing fleets that scour the oceans have the capacity to catch and destroy fish far more quickly than species can recover. Further, ocean acidification as a result of global warming is accelerating, while surface water temperatures are rising quickly, adding to the disruption of marine life.

On top of this, tens of millions of tons of plastic waste is ending up in the world's oceans every year, contaminating the base of the entire marine food chain. One estimate states that by 2050 there will be more plastic in the world's oceans than fish.

In what amounts to a zero-sum game, the human footprint has expanded as natural systems are eradicated. Since 1970, the global

population has more than doubled, to over 7.8 billion today, while GDP of the world economy has quadrupled, to almost \$90 trillion.

Californian environmentalist and author Paul Hawken put it bluntly: "we are stealing the future, selling it in the present, and calling it GDP".

While the original Earth Day was inspired by people's experience of ecological degradation they could see and even smell all around them, and while it achieved some notable successes, its ultimate legacy is one of failure.

We humans have so far proved unable to extend our empathy to other species, to nature itself, and to act unselfishly on behalf of people in other places, or indeed of all future generations. This was neither accidental nor inevitable.

Generations of neo-liberal thought have helped inure humanity against the pain of the natural world and the suffering of others, both humans and sentient animals, while shielding the billionaire predators, who have profiteered from this ruin, which is the consequences of their actions.

Our species achieved spectacular evolutionary success not just by brute force and violence, but primarily by our ability to cooperate, and the strength and complexity of our social structures. These have been worn threadbare by decades of atomised consumerism.

This too did not happen by accident. Back in 1955, US retail economist, Victor Lebow laid out the brave new world of manufactured consumerism: "our enormously productive economy demands that we make consumption our way of life, that we convert the buying and use of goods into rituals, that we seek our spiritual satisfaction and our ego satisfaction in consumption. We need things consumed, burned up, worn out, replaced and discarded at an ever-increasing rate".

Dystopian Soylent fantasies notwithstanding, the future, in the words of environmentalist Jonathon Porritt "will either be green, or not at all". **LE**