

Lord of the Flies

The world is turning into a place we have difficulty even imagining. To put it mildly, there's trouble up ahead. However, humans are wonderfully innovative. There are solutions, but they're even harder to imagine.



In 1973 a film called *Soylent Green* starring a young Charlton Heston was produced based on a 1966 novel, *Make Room! Make Room!* by Harry Harrison.

It was set in 2022, in a world suffering the effects of global warming and massive food shortages. Farms were under military protection and only the rich feasted on meat and vegetables. The rest ate composite protein with the consistency of seaweed, the most nutritious being green. When the gunk ran out there were food riots. It was disturbingly prescient for its time.

The strategy for population pressure was exit to a happy land for the over 60s. But, as

Heston discovers when his old friend decides on that option, happy land is actually a facility showing peaceful movies to oldies before turning them into green protein to feed the masses. It was preposterous and I gave it no more thought until a book, *The Protein Crunch* by Jason Drew and David Lorimer, landed on my desk. The subtitle is *Civilisation on the Brink*. If ever there was a book that smacks you into global awareness or drives you into denial, this is it. The authors don't pull any punches. Here are a few choice facts they serve up without caramel sauce.

It takes 30 000 litres of water

to make your cellphone. It takes 150 litres of water to make a pint of beer. Only 25 per cent of river water now reaches the sea. Every hour 200 people die from unsafe water and sanitation.

Erosion, mainly from farming, washes away 25 billion tonnes of soil a year, equaling an area nearly the size of Ireland. Countries such as China and Russia are buying up huge tracts of land in Africa to grow crops for their exclusive consumption – China has 2,8 million hectares in the Congo alone.

Across the world there are an average of 100 million acts of sexual intercourse taking place at any one time, yielding 369 000

babies, 160 000 of whom die. In 1950 there were 86 cities with populations of more than a million. By 2015 there will be 550. In that year Africa will have 332 million slum dwellers.

The top four transnational agricultural corporations control 40 per cent of the world food trade. More than a third of all the grain grown and fish caught are fed to the animals we eat. There are 16 billion chickens alive at any one time. Nearly half the world's antibiotics are used on farm animals.

Almost a billion people go hungry each day, while another billion are overweight or obese, including nearly one third of

British children under 15.

Land used for farming increasingly grows biofuel. If you fill up your 4x4, it uses the same amount of grain that could feed a person for a year. Since 1950 we have consumed half the world's resources ever used by humans. We are, in short, on a collision course with nature.

Drew and Lorimer put it rather well: 'Nature is like a goose laying golden eggs. When egg production stops we want goose feather pillows, then foie gras, then roast goose sandwiches every day until there's nothing left. Then we want our goose back.'

It requires a strong constitution to take this on board and the most common response is protective denial while we pass the plate for another helping.

Are we left, then, with no hope for the future?

Surprisingly, according to the book, that's not the case. Humans are survivors and very good at it, or we wouldn't have come this far with small teeth, no claws and sparse hair. We have the means to fix the problem – if we want to.

For instance, if we improved food security and reduced the need for oil, we could massively reduce military expenditure – most of the wars in the past 50 years were about oil or food supplies. We spend trillions of dollars on health care, but almost nothing on caring for Earth. If we spent more on the latter we'd have to spend less on the former. We need, they say, to change our definitions of success.

If we used the powerful engine of capitalist entrepreneurship linked with Earth-restoration science and pressure from an aware public, Drew and Lorimer insist we could turn this around in a



ABOVE LEFT: It takes an awful lot of flies to make a pile of eggs like this, but for Wilco Drew it's pure gold. **ABOVE RIGHT:** You might not want to know this, but these are fly larvae slurping up the best food for fly breeding: blood.

generation. If corporate entrepreneurs invested as much in eco-enterprises as in planetary destruction, they'd make huge profits while solving the global environmental crisis. It is, in a sense, a no-brainer.

'So what's an eco-entrepreneur look like?' I asked Drew at his book launch.

'My brother, Wilco,' he replied. 'He's a farmer. I'll introduce you.'

'What's he farm?'

'House flies.'

That, it turned out, is exactly what he does – in their trillions. And the reason? For protein. That's when I recalled *Soylent Green*.

'Why flies?' I asked Wilco over a cup of tea a few days later.

'The common house fly is very good at making protein out of waste,' he said, 'and they're tough. They can live in waste and anywhere from the Congo to Antarctica and they eat almost anything. You have no idea how much food-processing factories dump as waste – mountains of it. And I'm not kidding.'

'We have an experimental factory on Stellenbosch University's research farm where we feed waste to flies. They lay eggs that produce maggots, which are 60 per cent protein. We feed those

on waste – blood from abattoirs seems best – then dry the maggots and produce Magmeal. We're planning huge factories round the world.'

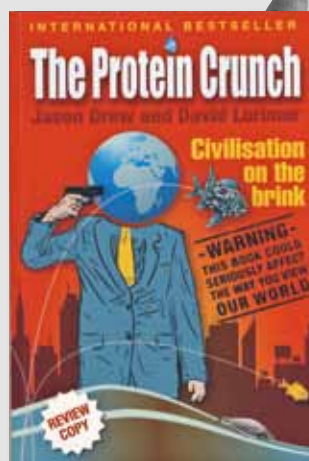
'Who eats the stuff?' I asked.

'Things with a single stomach, such as chickens, fish, sheep that need protein. There's an agricultural feed producer in Germany that can take 16000 tonnes of Magmeal a month if we could produce that much. The foundations for our first factory will be dug in South Africa in January.'

'Could humans eat it?' I asked, thinking Charlton Heston would have approved the alternative.

'Why not?' said Wilco. 'It's pure protein.'

I forgot to ask if it was green.



ABOVE: Eco-entrepreneur Wilco Drew and, **LEFT,** the startling book written by his brother, Jason, and David Lorimer on the future of the planet.