## 'Let them eat lentils 'won't save us from animal farming— we must embrace meat substitutes

The Guardian b Farnaz Fassihi February 1st 2023

Our insatiable appetite for meat is laying waste to the planet. But the alternative is looking (and tasting) better by the day. Do you hate the idea of animal-free meat? Many people do. Unsurprisingly, livestock farmers are often furiously opposed. More surprisingly, so are some vegans: "Why can't people eat tofu and lentils, like me?" Well, the new products plant-based, microbial and cell-cultured meat and dairy are not aimed at vegans, but at the far greater number who like the taste and texture of animals. Many others instinctively recoil from the idea of food that seems familiar, but isn't. So here's a question for all the sceptics. What do you intend to do about the soaring global demand for animal products, and its devastating impacts?

Already, 60% of the mammals on Earth by weight are livestock. Humans account for 36%, wild mammals for just While the human population is growing at 1% a year, the livestock population is growing at 2.4%. Global average meat consumption per person is 43kg a year, but swiftly heading towards the UK level of 82kg. The reason is Bennett's Law: as people become richer, they eat more protein and fat, especially the flesh and secretions of animals[..]So far, only one of the people I've asked has answered it directly: the food campaigner Vandana Shiva. I' You blindly echo the myth that as people get richer they eat more meat. Indians continue to be vegetarians even when they become rich. Food cultures are shaped by cultural and ecological values." But meat-eating in India is rising rapidly, though many people do it secretly. In other words, despite religious proscriptions, enforced with vigilantism and, in some cases, murder, Bennett's Law still applies.

It's as if we were urging people to burn less fossil fuel without offering a replacement: no solar, wind, geothermal or nuclear power. This issue is just as urgent, arguably even more so, as livestock farming attacks every Earth system. It's the primary agent of habitat destruction and wildlife loss. It's causing rivercide and dead zones at sea. It generates more greenhouse gas emissions than all the world's transport. [ ... ] Both historically and currently, livestock farming is probably the world's most powerful agent of colonial land grabbing and the displacement of Indigenous people. Meat is consuming the planet.

Livestock farming sprawls across vast tracts of the planet, inflicting massive carbon and ecological costs. 'Substitutes for animal products can greatly reduce this damage. They can allow vast areas to be returned to dispossessed people and the ecosystems they defended. The first cell-cultured meat recently gained regulatory approval in the United States. Adoption of the new technologies is likely to follow an S-curve: slow, then sudden. At first, uptake will be low and will suffer repeated setbacks. But as scale rises and prices fall, market penetration is likely to reach or more. That's the point at which linear growth suddenly switches to exponential growth. It's a trend we've seen in dozens of technologies, from refrigerators to smartphones.