**Hello and welcome to Just Have Another Think. Our, now monthly, look at the ecological, environmental and social consequences of the twenty first century climate emergency.**

**The majority of people around the world do now have a pretty good understanding that our climate is changing, and that the way we live our lives and consume products, especially in the rich industrialised countries, is also going to have to change quite significantly in the coming years.**

**There is now a general public acceptance of things like the need to utilise more renewable energy, or use fewer plastic bags, and being more careful with the amount of water we consume. Many people are also coming round to the idea of walking or cycling more, rather than relying on their cars to get around everywhere. These are definitely all very good steps in the right direction, and indeed if you asked people who they thought was most responsible for climate change they would probably say it was the fossil fuel companies, who produce electricity from coal and gas, plastics from petrochemicals, and vehicle fuels from oil.**

**But the one area of climate impact that still seems to be a big taboo with the majority of consumers is the concept of changing what we eat, and specifically the idea that we should reduce or even eliminate meat and dairy from our diets.**

**According to this recently published research paper, our global food systems accounted for 18 gigatons of greenhouse gas emissions in 2015 – more than a third of the overall global total. That includes everything in the chain, from energy demand to agriculture and land-use change, and emissions associated with the production, distribution, consumption and disposal of food through the various stages and sectors of the complete global food system.**

**Animal agriculture just on its own accounts for nearly fifteen percent of global greenhouse gas emissions, and according to this second study, published in March this year, fifteen percent of those emissions come from just 35 meat and dairy companies.**

**It’s probably worth a quick reminder of the different types of emissions at this point. There three main designated categories –**

**Scope 1 emissions are all the direct emissions** **from the activities within an organisation or under their control. That’s things like fuel combustion on site and in their fleet vehicles, and maintenance emissions like air-conditioning leaks for example.**

**Scope 2 includes indirect emissions from the generation of energy and electricity that then gets purchased and used by the organisation.**

**And Scope 3 accounts for all other indirect emissions** **from activities occurring from sources further down the supply chain that the company doesn’t own or directly control. These emissions usually produce the greatest share of the overall carbon footprint, through activities like business travel, procurement, waste management and water use.**

**So, with that in mind the paper poses three specific questions**

**Firstly where are the worst of the emissions coming from and are any of the companies making any efforts or commitments towards mitigating climate change.**

**Secondly, how do each company’s projected global emissions under what’s known as the ‘business as usual’ scenario stack up against the projected emissions of the countries where the company headquarters are based,**

**And thirdly, how transparent is the emissions reporting, and influence on public opinion and politics of the ten meat and dairy companies in the group that are based in the United States.**

**One of the biggest difficulties in making any like for like comparisons between companies is the fact that there is absolutely no standardization or regulation of how emissions should be reported, or even which emissions should be included.**

**So the level and focus of commitments varies greatly. The research found that only four of the thirty-five companies have made any explicit commitment to achieving net-zero emissions by 2050 and twelve of them make no mention in their annual reports of any emissions mitigation efforts at all.**

**At one end of the scale, Danish Crown places an appropriate emphasis on land use, highlighting that over ninety percent of their emissions come from the initial food production stage rather than at the processing or other stages in the supply chain. JBS, on the other hand, doesn’t include scope 3 emissions in their reporting because they define it as “Indirect emissions resulting from the third-party fleet, commercial air travel, decomposition of waste on third-party properties and others”, with no mention of land-use changes in their definition. In fact, JBS states that both scope 2 and scope 3 are “emissions over which the Company has no responsibility or indirect responsibility”**

**Some companies, like Ireland based ABP, and Fonterra in New Zealand, only focus on carbon dioxide mitigation, and don’t’ consider methane and nitrous oxide at all.**

**That same variation of reporting standards is also quite commonplace in the Nationally Determined Contributions, or NDCs of each nation state. It’s one of the biggest downsides of the agreement reached in Paris in 2015 to make all emissions reductions contributions voluntary instead of enforcing standardisation and regulation.**

**As a result, of the sixteen countries where the top thirty-five meat and dairy producers are headquartered, only seven make any explicit reference to direct and indirect emissions from animal agriculture in their national climate commitments. That leads to a bizarre and completely irrational anomaly…the researchers compared the entirety of each of the thirty five meat and dairy company’s emissions to the overall emissions of the country where they were headquartered. Using that comparison method, the emissions of twenty seven of the thirty five companies, particularly those headquartered in countries with very high emissions, are projected to be about ten percent of their country’s Nationally Determined Contributions, but the NDCs of New Zealand would be more than entirely consumed by Fonterra alone, Switzerland’s NDCs would be completely used up just by Nestle, And the emissions budget of Denmark would be entirely consumed by Arla and Danish Crown.**

**In fairness, the report does point out that applying a corporation’s global greenhouse gas emissions solely to it’s headquarter country is not the way that the Paris Agreement or the United Nations attribute emissions. That’s because many company operations occur outside of their headquarter country and those emissions, in theory, get attributed to the countries where those operations take place. Nestlé, for example, has four hundred and thirteen factories in eighty five countries, located throughout Africa, the Middle East, Latin America, and Asia. The majority of Cargill’s and Tyson’s emissions are the result of land-use changes for feed production in places like the Brazilian Amazon. But even so, looking at the numbers in such a starkly comparative way does help to demonstrate that neither the companies themselves, nor the countries that are home to their executive management teams, are taking full responsibility for industrial meat and dairy production.**

**So how about those US companies and their influence over public opinion and politics then?**

**Well, the researchers claim that their analysis provides evidence to suggest that the 10 largest US meat and dairy companies work hard to frame the conversation, influence climate-related policies, and minimize the link between animal agriculture and climate change. And the level of influence generally corresponds to the level of each company’s emissions. The test comprised of twenty very straightforward questions, each of which has a yes or no answer based on information obtained from a widely used database called Open Secrets, run by the Center for Responsive Politics, a non-profit and nonpartisan research group that catalogues lobbying and political spending within the US government. The answer ‘yes’ means there is evidence of influence and that question scores 1 point. If the answer is no then the question scores zero.**

**Tyson is the largest emitter of the US group and received the joint highest score for total influence at 15 out of 20, tied with National Beef Packing Company, the fourth highest emitter. Koch got the lowest score, at 11 out of 20, but they are a privately held company so getting information out of them is much more difficult. The average score across all ten companies as thirteen out of twenty.**

**Since the turn of this century, the entire US agribusiness industry has spent three quarters of a billion dollars directly supporting congressional political candidates. In the decade between nineteen ninety-eight and two thousand and eight, agribusiness spent two point five billion dollars on political lobbying. It wasn’t the highest lobbying figure – that dubious accolade goes to the ironically named healthcare industry, who threw almost nine billion dollars into lobbying over the same period, but it’s does beat the defence industry, which only manged a poultry two point four billion in political coercion over those ten years.**

**Some of those policymakers have done very nicely out of these sorts of donations. Hormel Foods for example was the largest contributor to Minnesota’s former Republican congressman Gil Gutkencht. A man who has regularly questioned climate science.**

**Meat and dairy companies have also supported other members of Congress, like Pete Sessions of Texas, Senator Saxby Chambliss of Georgia, and Roy Blunt of Missouri, all of whom have supported pro-agriculture bills as well as repeatedly voted against climate change legislation like the 2009 American Clean Energy and Security Act, which you may know better as the cap-and-trade act.**

**Animal agriculture industry organizations like the National Cattleman’s Beef Association and the North American Meat Institute also regularly fund, publish, and promote research and web content that minimizes or completely denies the link between animal agriculture and climate change.**

**The report found that the meat industry also takes advantage of America’s very large overall emissions number to suggest that their own emissions are relatively small by comparison rather than very large in absolute terms. A recent sustainability report published by the US pork industry noted that “pork production contributes just 0.46% of U.S. greenhouse gas emissions to the atmosphere” and in 2019, the National Cattlemen’s Beef Association published a paper called, “Tough Questions About Beef Sustainability,” that, among other things, claimed US beef production accounted for just 1.9% of total US emissions in 2014. More recent estimates put US beef production at closer to 3.7% of total US emissions, which as an actual number is about two hundred and forty-three million tonnes of CO2 equivalent. That’s about forty percent of the total six hundred and sixty one million tonnes of CO2 equivalent coming from the US agriculture sector as a whole. And those are just the emissions from within the United States. It doesn’t account for emissions from those companies’ activities outside the US. Lobbying does of course go on in other countries too. For example, Danish Crown has influenced scientific research on meat and climate change in Denmark, and Fonterra has fought the forty seven percent reduction targets for methane by 2050 in New Zealand and argued they should instead be only a twenty four percent reduction from twenty seventeen levels.**

**The report concludes by pointing out that global consumption of meat and dairy is growing fast, which means emissions from meat and dairy production are growing too. Scrutinizing and understanding the individual and collective behaviours of companies in this sector and the countries that host their operations is, they argue, therefore becoming increasingly important. Those behaviours include not only physical impacts on the Earth system but also fostering social and political conditions that discourage collective action and regulation.**

**So let me leave you with a glimmer of hope from a third paper, also released in the last couple of months. This one comes from a group of researchers at the University of Copenhagen, in Denmark, and the Swedish University of Agricultural Sciences. It looked at the influence of carbon labelling on consumers’ buying behaviours. And when I say consumers, I mean folks like you and me.**

**There is pretty good existing evidence that most of us tend to avoid uncomfortable information in all sorts of sectors, including food purchasing. For example, you may choose not to read the number of calories on the packaging of your favourite snack, or the animal welfare statistics on mass produced meat. These researchers wanted to find out if the same was true for greenhouse gas emissions, and whether carbon labelling would make any difference, so they carried out an online survey of more than eight hundred people in Sweden.**

**The survey started with a range of questions about the participants’ general attitude towards climate change and meat consumption.**

**Then they were asked to select their most likely buying option from a choice of six protein sources.**

**Next, they survey asked if the participants would like to have information about the climate impact of those products. A third of them said they didn’t want to see that kind of information.**

**But then they were asked to choose their food preference again, from the same list of options, but this time with the carbon footprint information included, regardless of whether or not they’d asked for it.**

**Both those who asked for information about the carbon footprint and those who turned it down changed their purchasing decisions after they saw the information – all of them becoming less likely to choose the high-carbon beef and pork options and more likely to choose the meat substitute.**

**The inference here is that some of the people who declined the carbon footprint information didn’t decline because they didn’t care about climate change, but because they just didn’t want to think about the issue at all, and once it was pointed out to them, their conscience caused them to alter their buying decision.**

**Overall, the climate impact of participants’ choices was twenty five percent lower in round two than in round one. Those who expressed a wish to learn about the climate impact of the products reduced their emissions by thirty two percent, and even among those who didn’t want the climate impact information the impact was reduced by twelve percent.**

**The findings suggest that carbon labelling of food has the potential to shift behaviour among those who aren’t looking for the information—and even among those who are actively trying to avoid it. But to do that, the researchers argue that the labelling will have to be carefully designed and presented in a simple way and in a very prominent position right on the front of the package.**

**Now, I know many of you good folks will be shouting something like ‘let’s see how that survey goes down in other parts of the world, like the good old Us of A’ for example. And I hear you. I’m quite sure the result would vary greatly from country to country.**

**But that doesn’t change the fact that while it’s very easy to focus on the fossil fuel industry as the main culprit in our accelerating climate emergency, (and rightly so), if we don’t radically change the way we grow and ship food all over the globe, and in particular reduce the amount of red meat in our diets, then it looks like any efforts to mitigate climate change will largely be in vain.**

**So, there we are then folks, just another little bit of midweek food for thought for you to cogitate on.**

**Thanks for watching, and I’ll see you soon.**