



Presented at the annual Iain McCalman Lecture on February 6 2020 by Dr Dinesh Wadiwel, Department of Sociology and Social Policy, University of Sydney.

The lain McCalman Lecture celebrates SEI co-founder and former co-director lain McCalman's generous and compassionate spirit, and his dedication to fostering and pioneering multidisciplinary environmental research. The lectures aim to highlight the work of early to mid-career researchers working across disciplinary boundaries to impact both scholarship and public discourse.

The research, events and operations of the Sydney Environment Institute take place at the University of Sydney, on the Gadigal lands of the Eora Nation. We pay our deepest respects to Indigenous elders, caretakers and custodians past, present and emerging, here in Eora and beyond.

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Dr Wadiwel explores the impact of animal agriculture on climate, planetary health and justice, and the issues with focussing on individualised responsibility, rather than structural and institutional reform. His talk seeks to swing the pendulum from the politics of consumption towards the politics of production by seeking to understand the global "metabolism" of the historically unprecedented expansion of animal-based foods under capitalism.

The industrialisation of production within the context of capitalist economies has led to the mass production of animal foods as a source of profit, producing deep environmental impacts, and simultaneously exposing trillions of animals annually to the violence of intensified farming and fishing. This talk highlights that thinking about production, rather than consumption, allows us to explore the way the economies and institutions might be enlisted to create a "just transition" away from industrial animal agriculture.

I want to begin my talk by marking the terrible moment many of us inhabit today, after the last few months of devastation have swept through so many lives. I don't think it is hyperbolic to state that the bushfires have marked a monumental disaster in Australia, which has massively impacted not only humans, but animals and the environment, in ways that defy measurement, and indeed imagination. The connections between human induced climate change and the catastrophe around us have become undeniable, and I think create a bittersweet opportunity for change, allowing us to consider afresh the meaning of environmental justice.

Traditional understandings of environmental justice were interested in the distributional inequalities associated with the environmental consequences of human activity, for example, the way that industrial pollution always seems to impact the poorest on the planet, even though these communities did not seem to benefit economically from the proceeds of industrial production.

More recent work in environmental justice, including from SEI Director David Schlosberg, has sought to highlight that injustices, either in the distribution of environmental consequences or the failure to recognize status and rights, go well beyond the human – today it is

apparent that we must take into account impacts for animals, and the environment, as subjects of justice.

Indeed, for better or worse, the devastation of the past summer in Australia has highlighted that climate change represents an environmental justice issue that goes well beyond the human. It is not just that the effects of anthropogenic climate change will disproportionately impact the poorest humans on the planet; actually, as we have witnessed, the climate emergency will also devastate the lives and communities of non-humans on a mass scale. Like other environmental justice issues, those who benefit from environmental devastation are shielded from its worst effects, while those who have no say in decisions that contribute to global warming are those that are harmed without any benefit. Underlining this is a complete failure of recognition - a systematic failure to recognise and value lives and flourishing in the multiplicity of life forms which surround us.

I: ANIMAL AGRICULTURE AND THE CLIMATE EMERGENCY

My talk today is about animal agriculture and its future. I recognise my talk arrives at a point of global crisis. At this time of emergency, we must take seriously a range of possible levers before us to mitigate

the worst possible futures associated with global warming. In my view the climate emergency creates a new context which changes the parameters for how we think about animal agriculture. It means that we are finally ready to have a serious conversation about how we transform this aspect of our food system, and take seriously justice for both humans and non-humans

In the not too distant past, critical discussions around animal agriculture were framed in relation to prominent debates within animal rights theory and environmental ethics. On one hand, from the 1970s onward, prominent voices in animal ethics, such as Peter Singer, asked significant moral questions about our mainstream uses for animals. In many cases animal ethics was responding to the horrors of industrial animal agriculture. particularly forms of agriculture utilising intensive systems of containment and the mechanisation of key processes such as slaughter. Animal rights theory looked at the factory farm, at intensive animal agriculture, and I think for good reason, found that there were few consistent moral arguments in favour of using animals in these ways.

Animal rights and the focus on individual responsibility

While animal rights theory agreed that industrial animal agriculture posed an ethical problem, the strategies proposed for challenging the institutional forms of animal agriculture focused upon individual actions. Peter Singer's influential 1975 book Animal Liberation included vegetarian recipes in the back, and odd inclusion for a work of applied philosophy. I don't mean to say that Singer thought that a commitment to mass vegetarianism was the only strategy available to counter animal agriculture- actually a close reading of Animal Liberation makes clear that this was not the case. However, the inclusion of the cook book in one of the appendices of this important work in moral philosophy marks something distinct about the way in which advocacy around the rights of animals has occurred over the last 50 years.

This advocacy has featured a very strong emphasis on personal practice; indeed, I would say, an over-reliance on individual change as a strategy as opposed to systems change. Thus, while animal agriculture is presented within

much animal rights theory as a social and political problem of how societies manage food supplies and the role of animals within it, the easiest solution proposed was for individuals to make an individual decision to opt out of supporting animal agriculture by eliminating animal products from their diets. That is, to ask consumers to vote with their feet by going vegan (or vegetarian) or avoiding animal products.

All of this happened in a context in which animal rights theory and environmental ethics appeared at odds with each other. At least one prominent fault line in the disagreement between animal rights theory and environmental ethics was in relation to the rights of individuals and the flourishing of communities. Traditional animal rights theory tended to emphasise the individual rights of animals. and count as harms infringements of those rights. Environmentalists, on the other hand, tended to speak about the flourishing of ecosystems or species, where individual harms were perhaps tolerable in the name of the greater good. Thus an environmentalist might be comfortable with the elimination of "nonnative" species within an environment because of the perceived benefits to an ecosystem or other populations. Further, while many environmentalists have recognised that many forms of industrialised animal agriculture pose environmental problems, the objection to animal agriculture is not directly informed by a concern for the rights of animals - thus environmentalists may support forms of intensive animal agriculture that offer reduced environmental impact, or alternatively, argue for modest low scale animal agriculture as a sustainable alternative to large scale agriculture. All of this potentially placed environmentalists at odds with animal rights supporters.

However, something has palpably changed over the last decade around the politics of meat. A decade ago, it seemed that discussions about the problems with animal agriculture were extraordinarily fringe in nature. It would be rare to see articles in major newspapers questioning the status of animals as food. At the same time, many would be aware of the cultural battles which have surrounded vegan and vegetarian diets over the last decade, with the meat industry (think about those Australia Day lamb advertisements) and major media outlets belittling those who chose to pursue plant-based diets.

Dinesh Wadiwel

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However today, there are almost daily media reports and opinion pieces which have drawn attention to the problems surrounding animal agriculture, and at the same time a veritable explosion of interest in plant-based diets. Veganism has gone "mainstream" – shifting from a marginal dietary practice to something which is now being actively embraced by major supermarkets and fast food chains.

Animal agriculture and greenhouse gas emissions

Perhaps the single most important driver of this growing awareness are the undeniable connections between animal agriculture and anthropogenic climate change. The numbers remain open to debate, however the United Nations Food and Agriculture Organisation suggests that total emissions from global livestock represent 14.5 percent of all anthropogenic greenhouse gas emissions. Last year's Climate Change and Land report provided some of the strongest language we have seen yet on this issue from the IPCC. The report argued that a "dietary shift away from meat can reduce GHG emissions, reduce cropland and pasture requirements, enhance biodiversity protection, and reduce mitigation costs." In particular the IPCC noted the potential of this transformation in allowing for adaptation and response to climate change, particularly in responding to deforestation and soil erosion.

To an extent, the developments over the last few years have, at least in my mind, shifted the grounds for how we think about animal agriculture. This does not mean that the old debate between animal rights and environmental ethics has been resolved – far from it. However, the reality of climate change has placed before us a concrete challenge which relates to our food systems, and a very clear message that we will need to massively reduce the number of animals being used for food in order to prevent a global warming scenario that we cannot adapt to.

If we add these concerns about the environmental impact of meat production to the prevailing concerns about the ethics of animal-based food industry, we have a curious situation: perhaps for the first time, animal advocates and environmentalists can find a space of agreement on animal agriculture. Whatever the shape of our future food systems, our planet cannot sustain meat consumption at the levels which currently prevail. We can surely agree that change is necessary.

So how do we get there? The challenge is that I don't think we have anything like a clear road map for how we might imagine restructuring food systems away from large scale animal agriculture. Indeed, it feels like the only solution being offered at the moment is to encourage people to "eat less meat". This message is

coming from multiple sources. We have prominent animal advocates arguing for people to "go vegan". We now see an emergence of very strong messaging from environmentalists also recommending dietary change, either encouraging people to abandon meat, or reduce consumption. This is now supported by scientists including the IPCC who, as I mentioned, acknowledge that reducing meat consumption is a solution. At the same, newspapers and the internet seem awash with vegan recipes, while, as I have mentioned, supermarkets and fast food outlets seemed to have embraced plantbased foods as a profitable outlet.

Should we focus on consumption or production?

However, all of this demonstrates something of a framing problem we have in relation to meat: namely that we focus on consumption as problem rather than production. This strong focus on consumption is odd, since much discourse around climate action today has thankfully moved away from individualistic obsessions around climate footprints towards understanding instead the structures and institutions we need to change in order to address the climate emergency. This means we do not expect that we can leave the problem of mitigating the use of fossil fuels to consumers alone - for example by waiting for individuals to buy solar panels as a way to end the coal industry. Instead we know that the debate over coal should centre on regulation of the coal industry and structural changes to end the use of coal as an energy source, hopefully including fair transitions for those employed within these industries.

In a similar vein, I want to stress that what is missing today in relation to animal agriculture is a conversation about the production of animals as food. This is now a structural problem in our food system that we have inherited and must deal with collectively, and not simply imagine that it is up to consumers to make different individual choices. Taking this stance does not necessarily downplay the role of individual choice – the choices we all individually make are still important – but seeks instead to swing the pendulum back towards the problem of production.

II: PRODUCTION AS THE DRIVER OF CAPITALISM

About seven years ago I began a project of slow reading Karl Marx, and particularly his work Capital. For those of you who have had to read this painfully dense work, I offer my commiserations. Marx is incredibly difficult to read, because he presents a very different way to look at the economy and its interaction with society.

However, in amidst all that complexity there were at least two things I learnt, which I think are valuable for thinking about animal products and their relation to our economic system and the climate emergency. And in case anyone is worried, we don't need to sign up as card carrying Marxists to take on these messages.

The first is that for Marx it is production in economies, rather than consumption, which we need to understand. This is because production sits at the centre of the incentive structure of capitalism. His story is perhaps familiar to you already, but let me quickly explain, so that we are all on the same page. For Marx what guides the logic of production is the acquisition of value from the production process. You and I go to work because we need a wage to survive. But in Marx's theory, the owner of production (i.e. the business owner) employs us not because they want to do us a service, but because we can be paid less than the value we produce - that is, in short hand, the capitalist can a make a profit from production by exploiting the labour within.

Production for profit, not need

You and I might disagree about whether Marx was correct in his summary of capitalist production. However, there are some interesting implications for how we think about production, its relation to the climate emergency and how we think about the production of animal products in relation to consumption.

This is because I believe Marx names a rationality that I think we can see around us – namely that we produce goods and services in a way that is frequently disconnected from need. This is because the immediate object of production is the value that can be extracted from this production – namely profit. We hope, perhaps in vein, that the free market will align in such a way as for economies to produce things that are

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actually necessary for the flourishing of lives. And occasionally it does. But we are confronted by a reality of the over production of commodities, almost everywhere, which do not seem to align in an ideal way with the fundamental needs of societies. In fact, as climate change shows us, the needs of the economy to continually expand and extract profit are odds with the flourishing needs of life on the planet. This is because rationality for production is the value that can be derived from the exploitation of labour.

But we don't need to think about labour as something that only humans do. Recently a range of theorists have pointed out that capitalism does not simply focus on human labourers, but extracts the energies and labour of nature as a whole. Thinkers such as <u>Jason Moore</u> have argued that we need to understand the interaction between capitalism and nature with fresh eyes, recognising that the appropriation of natural resources – the environment – was as central to the story of capitalism as the exploitation of wage labour.

The reason I think these accounts offer a useful diagnosis of the relation between capitalism and the climate emergency is the very real sense that we have an economic system that will continue to plunder the planet, to suck it dry and watch it burn, in the name of profit. Here it is not just human labour that is the object of exploitation, but everything it would seem - animals, natural resources on land, in the sea, under the ground - are sucked into the machine of our economy in order to chase value. The destruction of entangled human and non-human lives and communities is treated as simply an unfortunate by product of this economic progress.

Here the politics of consumption is still a reality, and I certainly don't mean to say that the decisions of consumers do not drive economic systems – we all consume and our demand for consumption products shapes realities. However, the demand to profit from production is also part of the economic picture. If we want to address the problem, we cannot do so through the lens of consumption alone. We need to look and production and its relation to our economic system.

It is here that I want discuss the second perspective I have gained from reading Marx, and this relates to the role of animals as a consumption commodity.

Animals as commodity

If we examine the use of animals as food over the last 60 years (as long as the UN Food and Agriculture Organisation has maintained records), we can notice some important, and perhaps, at least for animal advocates, disturbing trends. We are at a point in history where we use animals for food on a completely unprecedented scale: today, humans extinguish the lives of an extraordinary number of animals as part of global food production, a number that has continued to grow. According to UN Food and Agriculture data, in 2017, approximately 75 billion land animals were killed for human consumption; chickens alone comprised some 66 billion of these animals. It is difficult to say how many fishes are killed annually, although, the figure has been estimated to be close to 3 trillion animals per year.

It would be easy to conclude that this expansion in the use of animals has simply followed human population growth. However, the story is not that simple. The growth of animal-based food has exceeded the human population growth rate, in other words, there is increasingly more animal-based food per person per year. In 1961, global per capita meat consumption, excluding fish and seafood, was at 23kg per person; in 2014 this had nearly doubled to 43kg per person. World per capita fish consumption has more than doubled over this period. Per capita dairy consumption has grown and is predicted to grow, particularly in the global south.

These figures can be contextualised to Australia too. Despite much advertised interest in plant-based foods in this country, animal product consumption remains strong here – Australia maintains its top spot amongst the highest per capita meat consumers in the world, and despite a decline in milk consumption, demand for cheese, butter and yoghurt is stable or has increased. UN Food and Agriculture figures suggest that seafood consumption by Australians has more than doubled on a per person basis since 1961.

This shift in the availability and consumption of animal-based foods has been an important part of the story of the way in which we have witnessed a global restructuring of human diets.

The cataclysm of colonialism

"Animal agriculture in Australia is interconnected with a history of Indigenous dispossession and the colonisation of food systems. This means that our food system has evolved directly from our settler colonial legacy. From this standpoint in Australia, any conversation on how we change our food systems must happen in dialogue with First Peoples and their movements towards self-determination and food sovereignty."

- Dinesh Wadiwel

In part, some of this restructuring has been traced by some scholars to processes of colonialism, where traditional diets were replaced by European approaches to food, a process that went hand in hand with attacks on traditional ways of viewing animals and nature, including the attempt to dismantle indigenous knowledges which accorded agency and recognition to non-human beings. As Canada Research Chair in Indigenous Peoples, Technoscience and **Environment Kim Tall Bear observes:** "Indigenous peoples have never forgotten that nonhumans are agential beings engaged in social relations that profoundly shape human lives." This story of material dispossession tied with the forgetting of alternative ways of knowing and different food systems also resonates with Australia, since our agricultural sector, which includes vast pasture lands across much of the continent, has directly benefited from the theft of land which was part and parcel of our colonial history. Wendy Foley describes the impact of colonialism on Indigenous food practices as "cataclysmic" - a process that involved "separating people from their traditional lands and waters, limiting access to traditional foods."

So what can we say about this picture? Marx gives us an interesting perspective to consider. Humans need food in order to survive. An economic system, in order to produce, must ensure that living beings who produce value within that system are able to have their subsistence needs met in order to continue to create profit – in Marx's language, capitalism must produce a means of subsistence which allows workers to reproduce their own labour. The restructuring of human diets has included a strong emphasis on

the proliferation of animal-based foods. As I have discussed, this proliferation is partly a symptom of the problem we have with an economic system whose driving rationality is to produce because production itself is profitable. This leads to an overproduction of commodities, and like so many other commodities we have around us which are proliferated and must disposed of - cars, mobile phones, appliances, and too much plastic - food is another commodity that is over produced. And we know this over production is not evenly distributed. Instead we face a bizarre situation where some human communities lack an adequate means of subsistence to survive, while there is manifold wastage of over produced food products elsewhere.

Further, as Jason Moore and Raj Patel have noted, the process of creating cheap food goes hand in hand with a drive to keep down the wage bill of capitalism. Produce an abundance of cheap commodities and you effectively increase the buying power of wages. But this simultaneously puts downward pressure on the wage bill for the system, since low inflation reduces demands for wage increases (a reality that is playing out today in the Australian economy). For Moore and Patel, this guest for cheap food explains the rise of chickens as a food source in the twentieth century - these beings can reproduce, be contained, grown, slaughtered and distributed using rationalised industrial technologies. Thus chickens have become the most consumed land animals on the planet.

Fuelling the metabolism of the global economy

We have here then a curious "metabolic"

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relation between animals and humans which has been generated within the context of the history of capitalism. The massive expansion in the use of animals is driven by an economic rationality which assumes that production is necessary for growth, profit and the creation of value. Animals have been sucked into this process, a situation that has progressively intensified so that trillions of beings now face the violence of intensive industrial production for human food supplies. This has led to a proliferation of animal products as a means of subsistence for humans, cheap fuel if you like, which allows humans in turn to reproduce themselves and contribute labour to the production of capitalism. Here our food system captures the energies of animals. which in turn provides us humans the energy which we in turn feed into work under capitalism - not only in the form of wage work but other labour including care work.

Indeed if we treat food as another energy source of capitalism – that is, as the means of subsistence for all of us that contribute productivity to the economic system – then this gives us a different way to look at animal agriculture. We can see that we simply face another sustainability problem in relation to human energy supplies.

The reason I think this is a useful approach is that it allows us to gain a more complex and comprehensive picture of the way in which animals are implicated within our global economies. And thus the use of animals for food has become tied intimately to questions of human survival and the future of human productivity.

It for this reason that I don't think we can simply imagine that demanding that people stop eating meat is the only, or indeed is an adequate solution, to the complex problem we have before us. Instead we face a challenge of how to deal with economies and structures which have in turn shaped human cultures, practices and preferences. It is not that individual decisions about diet are unimportant – it's that we need a program of action that deals with the problem of production with as much zeal as we approach questions of consumption.

III: THE LEVERS OF CHANGE

It is here that I would like to propose some different ways to think about a politics

of production and the levers of change available to us. This will require some different lenses from simply encouraging consumers to eat less meat or adopt a vegan diet.

We could divide these strategies into three levels – the level of the state or government; at the level of institutions and culture change; and finally, at the level of grass roots action and social movements. Each of these approaches are potentially useful, but have their limits from a strategic perspective.

The state and government

At the level of government there are a number of ways to think about change. Perhaps the most obvious role for the state is as regulatory power over production and consumption. If what we are imagining is a form of "just transition" - that is, a planned transformation of an existing high carbon emitting form of food production towards forms of work and production that are more sustainable and can provide meaningful employment - then perhaps the state has a distinct role. Perhaps here shared thinking on transforming animal agriculture through an Australian "green new deal" or similar have some merit. Note also that such transformation might also partially meet the demands of animal advocates either by promoting high welfare animal agriculture, or even, perhaps, agreeing that some forms of animal agriculture should simply not continue on the basis of the harms delivered to the environment and to animals.

But I should note there are significant tactical problems before us in relation to how the state might be enlisted as an agent in the crisis that currently faces us. I am not telling anyone here anything new when I point out that, at least here in Australia, the state has proved an obstacle rather than ally in meaningful responses to climate change, and it feels unlikely that we are going to see significant change in relation to government action anytime soon.

We could also express suspicion about the capacity of the state to challenge the strong vested interests in industries that warm our planet – this has certainly shaped the politics of coal. There are also strong economic interests tied to animal agriculture, and these are often the elite interests of large companies and wealthy

individuals and families. The Australian Chicken Meat Federation tells us that two-large-integrated-companies-supply-70% of Australia's chicken meat for consumption. We should also take note that some of the largest landowners in Australia also operate some of the world-largest-cattle-stations.

In this context, my hope is that we have solutions that will guarantee equitable outcomes and not merely continue elite agendas. Ideally any solution must facilitate a fair transition that maintains the livelihoods of those employed in animal agriculture, must have a strong buy-in from the public and not alienate groups of people or heighten existing forms of inequality.

Institutional change

Perhaps some of the solutions are closer to home and relate to the institutions and structures we inhabit everyday - that is sites of work, education, sport and family. These solutions act at the level of everyday culture. Here I am thinking in particular of the work of my colleague Professor Daniele Celermajer, and her work on systems and institution change in the context of human rights. She suggests we take an "ecological" approach to change, acknowledging that we must work with institutions and cultures to change not only everyday practices but how individuals are formed; Celermajer states that "one has to curate the conditions under which those subjects emerge."

Here, instead of using the blunt stick of the law to change behaviours, we could instead shape everyday practices and institutions in such a way to make it easy for individuals to collectively alter dietary practices, and change institutional procurement processes.

At this very moment the University of Sydney is developing its next sustainability plan. A university's sustainability plan is a powerful opportunity for the institution to make a significant difference – not only through purchasing and investment decisions, transport planning and waste management – but also through creating an environment in which sustainability for individuals becomes normalised. Here, thinking about food practices seems like an opportunity. Because thousands of people congregate at this place, maximisation of the availability of plant based foods on campus is one of the most

useful strategies available for reducing emissions.

There are I believe over 60,000 students and staff at the University of Sydney. We can reasonably assume that tens of thousands of people pass through the campus everyday - the University's own travel surveys indicate as much. I have not seen data on how many meals are served at the University of Sydney. But I have seen a study of a US campus which suggests that 1 in 5 students purchase a meal on campus at least 3 times per week perhaps this is replicated at this University, and would suggest a massive number of meals served everyday, particularly if we include catered food for conferences and seminars. The implications of moving towards a greater proportion of plant based foods on campus would be immense. A 2014 UK study suggests that producing a high meat diet creates 2.5 times as many greenhouse gas emissions than an equivalent calorie plant based diet. In other words, for every meal served on campus there is an opportunity for significant reduction in emissions through university procurement.

Importantly, this would subtly challenge everyday food practices – rather than assume that animal based foods were the norm, there is an opportunity for a meal on campus to reinforce a sustainability message – not only in relation to greenhouse gas emissions, but also importantly, an opportunity to reduce the violence we expose animals to in our intensive food systems.

However, while I think there is much to be done on an everyday level within institutions to alter practices and knowledges, we are not necessarily getting to the heart of the problems I have discussed in this lecture – the challenge of animal based food production and the economic system which has contributed to the current climate crisis we face.

Alliances, grassroots campaigning and change from within

The story I have told you today, about the explosion in the production of animal based foods over the twentieth century and beyond, the way this has restructured our food supplies, and the way this is deeply connected to the logic of our



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economies, tells us that moving away from animal agriculture will not be easy since intensive animal agriculture has been, it would seem, welded on to our ways of life – it is integral to our economies, and seen as integral to our food supplies. This is a problem we have all inherited, and much like thinking about how we make our energy supplies sustainable, we cannot achieve change unless there is strong consensus. Change proposals must not alienate and disadvantage in the name of progress, particularly those who work in industries.

In other words, if we need to transform our food systems, then those who work within in them must be collectively involved and benefit from the process of change.

It is here that we need a very different kind of politics that is able to address both the non-sustainability of current industries, but simultaneously work towards a more just economic system which is able to distribute resources more fairly and provide more control to communities over economies.

Here we need new alliances, not merely between animal advocates and environmentalists, but also with labour movements and communities who are trying to address working conditions and deal with the inequalities presented by our economic system.

Allow me to give you two examples of opportunities for such campaigning.

Wild capture fisheries

At present, wild capture fisheries, particularly in the Asia Pacific, represent something of a social and environmental catastrophe. The growth of the global market for seafood has expanded wild capture fisheries to their limit. Human labour conditions are shocking, with the rampant use of low wage and forced labour in supply chains. The cost to animals is immense - as I have suggested, estimates suggest that up to three trillion fish are killed each year by wild capture fisheries. Current evidence suggests that fishes experience pain and emotions in ways similar to land animals; it is notable that the bulk of wild fish capture utilises no basic welfare precautions, such as stunning before slaughter.

Globally there are a number of environmental and labour rights groups

working to identify the use of forced labour in the industry and campaign for better wage conditions. Arguably any attempt to raise the value of labour within supply chains will have a dramatic effect on the financial viability of the global industry, adding pressure to slow down the violence wrought by global wild capture fisheries. Supporting labour advocates will not only help to apply upward pressure on wages and impact the viability of fishing operations, but also build solidarity and exchange between labour movements and animal advocates. This will build awareness of the conditions faced by animals, and promote a conception of structural change between workers and animal advocates that includes consideration of non-human interests. Here there is a powerful opportunity for labour movements, environmental groups and animal advocates to work together to address this industry.

Slaughterhouse line speeds

One more example. Late last year the Trump administration announced changes to rules which would reduce the number of inspectors within US pig slaughter plants, and remove a cap on line speeds for inspection lines. The effect of these changes would be to permit higher line speeds and reduce requirements to monitor from official inspectors. The United Food and Commercial Workers International Union has already attempted to block the new rules, arguing that increased line speeds would lead to higher injury rates for workers. Food inspectors have also warned of the risk of unsafe meat making its way to consumers under the new regime.

From my standpoint, line speeds within slaughter plants is an environmental justice issue. For our climate, the capacity to produce more meat more quickly is at odds with the directions we should be heading towards, that is to reduce the production of animal-based foods. For workers, increased lines speeds mean higher rates of stress and injury. Remember as well, and certainly in the US context, workers within industrial animal agriculture are frequently low paid and there are many reports about the substantial involvement of undocumented migrants in this production. For animals, increased line speeds means an increased number of animals killed every year, and

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an increased demand to birth, contain and about how we transform our food system. utilise animals for food supplies.

Here again there is a unique opportunity for environmentalists, unions and animal advocates to work together. And simply telling consumers to eat less meat will not solve this problem - instead we need a grass roots campaign to transform our food supplies.

I have picked two examples that are at a distance from Australia - that is industrial fishing in the Asia Pacific and line speeds in hog production in the US - however the lessons are useful for how we think about strategies in an Australian context.

Over the last decade, labour conditions in Australia's food industry have continually been in the spotlight, with unions such as the Australian Workers Union highlighting systematic exploitation, often of short term migrants. As a whole Australia's meat industry has comparatively strong unionisation, however there are areas such as chicken production, where there are now numerous reported cases of labour rights abuses. Once we recognise animal agriculture as an environmental justice issue, and recognise that this is a problem we all share, then there is scope for variety of interests - unions, environmentalists, animal advocates, community groups - to be in conversation

Further, as I have discussed, animal agriculture in Australia is interconnected with a history of indigenous dispossession and the colonisation of food systems. This means that our food system has evolved directly from our settler colonial legacy. From this standpoint in Australia, any conversation on how we change our food systems must happen in dialogue with First peoples and their movements towards self-determination and food sovereignty.

IV: THE OPPORTUNITIES OF CRISIS

I think it is fair to say that we are in a period of crisis. Significant change in how we do things, how we live and what we value is likely to occur within our lifetimes. But crisis I believe creates unique opportunities. It thrusts unlikely stakeholders together as allies, and establishes the groundwork for new ways of living together.

As an animal advocate, I believe we are facing a time of extraordinary contradiction, but also amazing opportunity. On one hand, within our food systems, animals are used on a scale that cannot compare to any time in human history, and the impacts of this food system on our planet, including billions of wild animals, is devastating. However,

the crisis has created new opportunities for change. The old debate between environmentalists and animal rights folk now seems to lack the relevance it once had. Instead we are all being called to address a shared problem before us, and presented with an opportunity for a more just outcome for humans, animals and environment.

In all of this, I do not want to suggest that the individual decisions we might make in relation this crisis are unimportant. On the contrary our personal ethics, our capacity to reflect on what is happening around us and alter our lifestyles to adapt to our current circumstances, seems self-evident as a responsibility within these times.

However, we need to do more to address the current crisis. With respect the animal agriculture, swinging the pendulum towards the problem of production means opening the conversation about how our food system must be transformed and how we should work with those within it to achieve something fairer and more sustainable. I believe we have the opportunity now to make this transformation happen; our success will depend on the quality of alliances we can build, our commitment to democracy and inclusion, and our ability to articulate a vision for a fairer society. -



lain McCalman, Sydney Environment Institute Co-Founder and former Co-Director, Dr Dinesh Wadiwel, Research affiliate of Sydney Environment Institute, and David Schlosberg, Director of the Sydney Environment Institute

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