The catch

Abstract: Wildlife populations are collapsing around the world, while intensive agriculture and aquaculture is expanding. The political ideology of neoliberalism has created economies with few environmental and consumer protections, to boost profits and 'growth'. These two phenomena are intimately intertwined. Peter Carr moved to Loch Hourn in the Highlands of Scotland 50 years ago. He has seen how overfishing and climate change have combined to decimate fish populations there. Today, he and other members of the Friends of Loch Hourn are warning about the impacts of the intensive farming of Atlantic salmon in the region. In Vienna, Austria, students of alternative economics take part in the harvest game, designed to demonstrate how common resources need to be carefully managed to prevent resource depletion. The game is inspired by Elinor Ostrom, and her work showing that communities can work together to prevent the 'tragedy of the commons', the logic of individualism at the root of the neoliberal fever dream. This essay draws together Peter's lived experience, the students' learning and Ostrom's pioneering academic studies to share a powerful lesson: we need our communities to unite against the threat of exploitation and extraction at a local, national and international level to prevent existential environmental threats including climate breakdown.

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Clear blue sky. Crystal clear water. I'm talking about industrial salmon farms with Peter Carr, a retired prawn fisherman who lives just off the pebbled shore of Loch Hourn, near the hamlet of Arnisdale on the west coast of Scotland, opposite the island of Skye. I'm trying to remember the name of Elinor Ostrom. My mind is not so much clear as completely blank.

THE HIGHLANDS

Loch Hourn (Loch Shubhairne in Scottish Gaelic) is remote and breathtakingly beautiful. It lies within the Knoydart

National Scenic Area and is surrounded by Kinlochhourne-Knoydart-Morar Wild Land Area. The John Muir Trust describes it as "one of the wildest and most beautiful parts of Scotland".

But the environment around the loch has undergone a series of serious shocks over the last half century. The number of wild fish in the waters continues to decline. In recent years it has become another front line in the struggle between local communities distressed by the death of small scale industry and the collapse of wildlife against finance capital, extraction

and pollution – in this case, the salmon farms.

Peter, 77, has witnessed these changes first hand. He first moved here in search of tranquillity during the 1970s, after graduating from Cambridge University. When he arrived the cottages around the loch were derelict. He rented one such ruin from the local laird and spent years renovating. "In the first year I picked winkles. Then I bought a compressor and started diving for scallops." The laird later sold the estate, and Peter was able to buy his house. By that time he was making his living fishing for prawns, or langoustines, using creels, a lighter version of the lobster pot. He would catch about 25kg a day from his 26-foot boat. This was enough of an income for his modest lifestyle.

As the years passed, he continued to be mesmerised by the beauty of his surroundings and the fact that somewhere like this could actually be his "workplace". He recalls his days diving for scallops: "It was phenomenal. It was just dolphins, whales. You just could not believe the wildlife you had. The undamaged seabed was like a wild garden." He adds: "The most sustainable way to make a living, at least in doing what I was doing, was from the sea. There were actually more fishing boats then than there are now. Catches were better because the grounds were fairly fresh and not yet overexploited."

PARADISE LOST?

The fish are not so plentiful now. Climate change has meant species once common at Loch Hourn, including mackerel, are now scarce here, with populations moving north to cooler waters. In the 1970s over exploitation of the pelagic west coast also reduced the number of fish. The herring population here was driven to near extinction by the early fishing industry.

"There was much less regulation back then and one of the first steps was the introduction of licences to begin to limit the number of boats and the fishing effort." A new law prohibiting trawling for prawns within three miles of the coast, though not universally observed, had offered substantial protection to inshore grounds. "When the limit was in force it would have been uneconomical to run a small trawler because you wouldn't have the option to work inshore in sheltered waters when the weather was bad."

Then, in the 1980s the political tide turned and governments around the world abandoned attempts to regulate business activity, claiming the market could find a natural equilibrium. The restrictions on inshore trawling were lifted, resulting in a serious depletion of the prawn population in the loch. Peter says: "The removal of the three mile limit was a major problem. Fishermen with relatively small boats took advantage of the deregulation."

He recalls: "When the limit was removed quite a lot of people bought small trawlers or converted creel boats to trawling and came in and had a real bonanza in the lochs. It didn't last and before too long they had spoilt the fishing for the creel boats as well as for themselves. The creel boats operating in the lochs took a much smaller catch than uninhibited trawlers. There's now many fewer creel boats and small trawlers."

These newly arrived boats were bottom trawlers, which use weights to drag their nets along the loch bed. Bottom trawlers

are highly effective, increasing the catch and boosting profitability. They began to use 'rockhopper' trawls which meant they were less troubled by rocky patches of the seabed and enabled access to every nook and corner of the mud where the prawns lived. But they are, for the same reasons, incredibly destructive. They catch and kill a lot of small fish and small prawns, which are dumped back out into the water.

Bottom trawlers destroy the habitat for yet further species which are also a vital part of the web of life when they scrape the seabed. "It flattens the surface, killing all sorts of things that were really productive," Peter tells me. "You noticed a serious change. We used to be able to fish in the same spot day after day, but after that you had to keep moving, looking for fresh ground as nothing would work for more than a day or two."

Rick Rohde also moved to the Loch Hourn area some 50 years ago. Since then he has made a living from the sea, farming mussels. He also fished for lobsters. He too has witnessed the dramatic change. This includes a collapse in the populations of crabs and blue mussels. "All the blue mussels near me died. They're completely wiped out, where they used to be common. It was happening all over the place."

SALMON FARMING

The latest crisis is the incursion of open-net salmon farming on the southern shore of the loch. Farmed salmon is now the single most popular fish consumed in the UK, according to the Marine Conservation Society. The rationale for salmon farming, Peter tells me, is simply that it was seen as "an exciting new opportunity for businesses and employment and another way to make money from the sea". But the growth in the size of the salmon farms here has increased the concerns of people who have fished here for decades about the impact on the ecosystem.

Mick Simpson, also a local fisherman, opens a meeting of the Friends of Loch Hourn (FoLH), of which Peter is a founder member, at the local community centre, a small chapel-like wooden building. I am lucky enough to be in attendance. The group was originally established to fight a planning application submitted by a company called Mowi Scotland. Mowi had farmed salmon at Loch Hourn for decades, and then applied to expand the fish produced at its facility by 24 percent. FoHL gathered 170 formal objections to the application and submitted them to the local planning authority. This is despite the fact that the group is run entirely by volunteers.

"At first we thought salmon farming was a good idea," Mick concedes. The farms were small – at the beginning. Crofters whose families had farmed in the area for generations thought they might have a stake in the new economy, "to have their own cage to grow a fish farm".

Wild Atlantic salmon populations in the Arnisdale River are close to extinction, while across Scotland they are at an all-time low. Indeed, populations of salmon have collapsed across Britain and were recently reclassified as "endangered" by the International Union for Conservation of Nature. It is widely known that a major driver for the collapse of wild salmon is climate breakdown, which brings warmer sea temperatures that in turn cause thermal stress and reduced oxygen levels in water, placing stress on the salmon and

allowing sea lice to breed faster. However, commercial fish farming is certainly compounding the crisis.

The ecological crisis is only going to get worse unless action is taken. Rachel Mulrenan, Scotland director at WildFish, said: "Open-net salmon farming is one of the key threats facing our iconic wild Atlantic salmon populations. The growth of open-net salmon farming in Scotland has coincided with a catastrophic decline in the wild salmon population. From the dispersal of sea lice parasites, which can prove fatal to migrating smolts, to the impacts of escaped farmed fish on genetic fitness, there is no doubt that salmon farming has been a significant contributory factor to this decline."

The biggest problem right now is the outbreaks of sea lice. "In the early days they had a site right up the top of Loch Hourn in the inner lochs, which had to be abandoned when the minimal flow up there contributed to disease outbreaks," I am told.

Salmon farms are the perfect breeding ground for the parasites, which multiply and release huge quantities of juvenile lice which attack what remains of the wild Atlantic salmon. After being spawned, wild salmon live in the freshwater of the rivers for two to three years before growing into smolts and migrating out to the ocean. During this vital journey they are plagued by the sea lice that are pouring out of the fish farms and are concentrated along the path that the young salmon travel on their way to the open sea. One sea trout caught recently off Glenelg had over 30 sea lice attached. Mowi Scotland states that sea lice levels peaked in 2007 and have declined since following the use of "freshwater treatments" and other physical means such as thermolicers.

The use of toxic insecticides, such as azamethiphos, to deal with the lice may even be adding to the environmental harm. These and other organophosphates are, according to locals, being released into the loch. Peter observes: "I can't think of any other farming industry that would be able to do that." The John Muir Trust has stated: "Important marine species in Loch Hourn which have already suffered from chemical pollution from the existing fish farm operations...include maerl beds, native oysters, wild salmon, sea trout, northern feather stars, tall sea pens and fireworks anemones."

The local community is also worried about the release of excess nutrients into the loch. The water interchange in the loch takes II days, which means these nutrients are not quickly dispersed. Salmon release ammonia from their gills, which breaks down into nitrogen. The increase in the production of salmon at the Mowi farm will inevitably increase the nitrogen in the water by the pens. An increase of nitrogen can result in algae blooms, which in turn suck oxygen from the water. In extreme cases, this can kill other species.

The increase in salmon also results in more carbon deposits on the seabed. The number of different species living under the fish farms is falling, although the population of some species, such as polychaetes, are increasing. Salmon also escape the farms. A total of 36,000 fish breached the Mowi facility at nearby Carradale in August 2020 during a storm, although the company states that its research showed this did not impact the wild populations. Mowi states that all nutrients and chemicals from the farms are closely monitored and kept within regulatory limits.

The European salmon industry is having impacts around

the world. The Norwegian salmon farming industry has been strongly criticised for sourcing much of its feedstock – fishmeal and fish oil – from West Africa. As a result, an estimated four million people in the region are suffering from chronic food insecurity. Peter says of salmon farming generally: "They will use a lot more wild fish feed to get a kilogramme of farmed salmon. You're talking about fish that someone could have eaten off the coast of Africa." Mowi Scotland has a policy of not sourcing marine foodstock from West Africa. It does import as much as four million tonnes of fish from Peru each year.

There is also widespread concern about the welfare of the fish caught up in industrial fish farming around the world. Peter, discussing the global industry, said: "The fish are being eaten alive by lice. They're suffering. There's no way that any of us would treat livestock the way that they're treating the fish." In relation to Loch Hourn, he adds: "The mechanical treatments for lice infestation, such as thermolicers, are brutal. But even for healthy fish the conditions are completely alien, for a species that normally has a range of thousands of miles to be crowded into these cages for their short lives. In addition, I cannot think of any other livestock farming industry that would consider a 20 per cent mortality normal or acceptable."

VIENNA

Just a few weeks before meeting Peter I had actually been pretending to be a fisherman from a small village. I too was facing the prospect of watching abundant populations of fish being exploited into extinction. I was taking part in the brilliant Alternative Economic and Monetary Systems summer university programme in Vienna, Austria. Vienna is the birthplace of the economist Friedrich Hayek, one of the intellectual originators of neoliberalism. The "harvest game" was facilitated by Professor Helga Kromp-Kolb, Austria's best-known climate researcher, and included about fifty other students from around the world. It was taken from the *Climate Change Playbook* by Dennis Meadows et al.

The game was simple. We students formed five groups of six people. Each group represented a village. The villagers were entirely dependent on fish for their survival. There were no limits to the number of fish each of the villages could take from our imaginary ocean. We did not know how many fish were out there, but we were told that the number that remained after each fishing season would double. The maximum carrying capacity of our ecosystem was 50 fish. The fish were represented by buttons in a biscuit tin.

The challenge was mathematical, but also interpersonal and social. It was immediately obvious to some in our village that we should not take any fish in the first year. This would allow the population to double, hopefully reaching the 50 maximum. After that, each year each village could take out five fish. This would provide a 'harvest' of 25 fish, and every year the population would fully replenish.

But some of the students were more interested in getting more fish than 'rival' villages – and "winning the game". This became existential. There were heated discussions about sustainability and community. But what if there is a famine year? What if other villages are getting ahead? It all became incredibly chaotic. Some students – I recall in particular one really smart climate activist – felt overwhelmed with frustration and despair. At the end of the game we discussed the political economy of Elinor Ostrom, whose name was to escape me less than a month later in Scotland.

For Peter, the consequences of overfishing are of course not a game. He is painfully aware of the fact that global economics and national policy have decided the fate of his local community. We discuss how neoliberalism replaced Keynesianism as the economic paradigm the world over after the 1970s. Politicians advocated for economic growth, the removal of regulations, the bonfire of red tape. And in came the bottom trawlers.

The economy at the macro level is too often decided at the micro level. The incentives for a private company to maximise production and profits are immediate and real. The benefits go straight to the shareholders, and senior executives. The costs, such as the degradation of the local environment, are too often externalised and socialised.

MOWI

Mowi Scotland is now expanding its production in Loch Hourn. It is part of a Norwegian seafood behemoth that in 2024 made €860 million in operating profits. The company states on its website that it is "one of the largest seafood companies in the world, and the world's largest producer of Atlantic salmon". In 2024 it produced a "harvest" of 502,000 tonnes of fish, which it claims made up eight million meals. The company has 11,500 employees. The fish farms around Loch Hourn employ nine people and are now licensed to produce 2,750 tonnes of salmon.

Mowi claims to be at the forefront of sustainable aquaculture. The company boasts that it has been ranked the most sustainable protein producer by the Coller FAIRR Protein Producer Index for the sixth year in a row. This claim is made despite the fact that more than a million fish died at two Mowi Scotland sites, the biggest mass die-off of farmed salmon in Scotland in a decade.

The environmental claims from the company have done little to reassure the local community. Peter observes: "Sustainable' is a recurring claim by an industry that is anything but." The latest application to expand production was a final straw for many. They came together as FoLH to fight the planning application. When the plan to extend the farm came before the Highland Council, the planning officer recommended that the extension be allowed. The locals did enjoy an early victory when the Highland Council's North Planning Applications Committee, made up of elected members, voted down the application. But that was the last time they had cause for celebration. Mowi promptly appealed the planning refusal.

The community met with senior managers at Mowi Scotland to present their case. It didn't go well. "We were treated by the managing director as though we were idiots. We're the people who observe everything, and we did everything we could, but we did not have clout," Mick recalls. They were also shocked at the response from one member of a salmon producers' group. "There were *ad hominem* attacks. They called us old, retired nimbies."

FoLH secured a £5,000 grant from the Highlands and Islands Environment Foundation. The money was used to

commission scientific modelling of the spread of sea lice from the fish farms into the loch. Dr Tom Scanlon of the University of Strathclyde developed a bespoke software system called CLAWS: Chemicals Lice and Waste from Salmon Farms. The project was based on the OpenDrift software developed at the Norwegian Meteorological Institute in Oslo.

Dr Scanlon's report shows how the sea lice spread from the farms into the loch, giving the wild salmon no choice but to swim through dense patches of the deadly parasite. The independent research supported the claim that the modelling from regulators and the industry itself had failed to capture the scale of the problem and the potential for damage. Dr Scanlon, speaking at the local meeting by video link, intimated that the sea lice crisis could within a few years make even farm fishing in the area impractical and unprofitable. "It is a ticking time bomb," he warned. Dr Scanlon's research was presented to the Scottish Environment Protection Agency (SEPA) and the planning office. Mick sighs: "It could have been a good moment to look at whether there was any justification for having a salmon farm here at all."

Christopher Warren, the planning appeals reporter appointed by the Scottish government, ruled against the local committee and allowed the expansion to go ahead. He argued: "There is nothing before me to suggest that there would be a likelihood that significant irreversible damage to wild salmonid populations would result from the development." The locals opposed to the planning approval could have appealed to Scotland's Court of Session but their legal advisers have warned this could cost $f_{10,000}$ with no guarantee of success.

A spokesperson for Mowi Scotland said the company operates well within the environmental limits imposed by the strictest regulatory regime in Europe. The company states that its activities at Loch Hourn do not cause environmental harm. The release of nutrients does not adversely affect the loch, they added, while the use of pesticides in aquaculture had fallen by 70 per cent. The spokesperson added: "Site specific sea lice data shows that Loch Hourn has one of the lowest rates of sea lice challenge."

The Loch Hourn community is understandably despondent after losing the planning fight. One of the members, who did not wish to be named, told me: "The government decided there would be no fish farms on the east coast or the north coast – but they decided there is not a problem here. And now the west coast of Scotland is a busted flush. There's no point in protecting the west coast any more and opposing these individual farms, because there's no wild fish here any more."

FINANCE

Ailsa McLellan, an oyster farmer and campaigner, would no doubt sympathise with the feeling of dejection. "It is so difficult for communities to fight salmon farms, it's always David versus Goliath, and the farms have literally billions of pounds at their disposal," she said. "But more and more people are waking up to the truth that the ever-increasing negatives hugely outweigh the benefits of industrial-scale salmon farming. We are a growing movement, we have a voice that is getting louder and we will continue to fight against the scourge of industrial salmon farming."

Ms McLellan was speaking at the publication of *Fishy Finances*, a new report published by the campaign groups Feedback Global and The Global Salmon Farming Resistance (GSFR). The research is based on newly released data. It reveals that billions of pounds of investments and loans from the big banks and asset managers are driving the enormous growth of industrial salmon farming.

Mowi was the largest recipient of all credit from global financiers, receiving US\$7 billion between January 2015 and November 2024, more than one-third of the total identified credit awarded to salmon farming companies, according to the findings commissioned from independent research organisation Profundo. According to Feedback Global's calculations, this has helped boost Mowi's production volumes by around one-fifth, from 420,000 tonnes in 2015 to 502,000 tonnes in 2024, and more than double its feed production, from 282,000 tonnes to 582,000 tonnes, over the same period.

Natasha Hurley, director of campaigns at Feedback Global, said: "It's truly shocking that public money is being given to wealthy salmon farming corporations whose shareholders are netting big profits at the expense of wild fish populations and communities around the world. For years global financiers have helped fuel the stratospheric growth of this destructive, extractive industry while using their power and influence to push misinformation about salmon farming. This cannot go on – it's high time to listen to local communities and stop the financing to industrial salmon farming."

THE COMMONS

Of course the moment I got home to Devon and unpacked my bags I immediately recalled the name of Elinor Ostrom, and the relevance of her groundbreaking work to the situation back in Scotland. Professor Ostrom was the first woman to win the Nobel Prize in Economics. The game I had taken part in while in Vienna was designed to teach students the key message from her political economy. She was attempting to stop the contagion of a very dangerous idea, loftily titled 'the tragedy of the commons', that would provide one of the foundational myths for neoliberal economics.

Garrett Hardin, an ecologist with an interest in game theory, published his paper 'The Tragedy of the Commons' in the journal *Science* in December 1968. Professor Hardin feared the increase in human population of his time because he assumed we humans would behave like a disease. We would exhaust our natural resources and pollute our planet – we would "soil our nest". His concerns chimed with many in the burgeoning environment movement.

His prognosis, at least, included the impact industry was having on nature. "Maritime nations still respond automatically to the shibboleth of the 'freedom of the seas'. Professing to believe in the 'inexhaustible resources of the oceans', they bring species after species of fish and whales closer to extinction." He also pointed to "the problems of pollution". "The owner of a factory on the bank of a stream – whose property extends to the middle of the stream – often has difficulty seeing why it is not his natural right to muddy the waters flowing past his door." He even discusses the release of "dangerous fumes into the air" – a precursor to scientific warnings about greenhouse gases driving climate breakdown.

Professor Hardin blamed nature and the survival of the fittest, he blamed human nature, which he assumed to be based on a kind of individualistic rational self-interest. But most of all he blamed the idea of "the commons". "Therein is the tragedy," he extrapolated. "Each man is locked into a system that compels him to increase his herd without limit – in a world that is limited. Ruin is the destination toward which all men rush, each pursuing his own best interest in a society that believes in the freedom of the commons."

Professor Hardin's fever dream centred on a paranoid fear that "if we ask a man who is exploiting a commons to desist" he will wake "in the wee small hours of the night" to realise that he has been convinced to limit his plunder by a boogeyman who "will secretly condemn you for a simpleton who can be shamed into standing aside while the rest of us exploit the commons."

Here's the catch. The argument in 'The Tragedy of the Commons' was an exercise in idle speculation, with no basis in fact, and no methodology from the social sciences. Professor Hardin's solution was to end the commons and turn all of nature into private property, a commodity, owned by private individuals and through private companies. Ironically, he was not describing what would inevitably happen, but instead what would be the result if we did not develop ways to manage the commons. His influence on neoliberal politicians and economists would actually compound the very problem it had diagnosed. We have seen how large companies become machines for extracting and destroying natural resources.

Professor Ostrom effectively and definitively challenged Professor Hardin's nightmare in her seminal book *Governing the Commons: The Evolution of Institutions for Collective Action*. She conducted real-world field studies in Spain, Switzerland, Nepal, Japan, Indonesia and the United States, gathering primary evidence with people in small communities who were successfully managing shared natural resources such as pastures, fishing waters and forests.

She even researched the problem of overfishing. She outlined one such study in an interview in 2009, a few years before she died. "Let me use the example of a lobster fisherman in the state of Maine. In the 1920s, they almost destroyed the lobster fishery. They regrouped and thought hard about what to do and over time developed a series of ingenious rules and ways of monitoring that have meant that the lobster fishery in Maine is among the most successful in the world." She added: "There are many other small to medium sized groups that have taken on the responsibility for organising resource governance."

THE STATE

A neat way to manage the conflict between the interests of private companies and the interests of local communities and the natural environment – the commons if you will – is for democratic governments to regulate the use of shared resources. This is the Keynesian approach to capitalist economics. However, what we have seen in the last half century is that private corporations now have massive resources, and use them to influence government decisions. The neoliberal movement, funded by corporate interests both in the US and here in Britain, deliberately undermined

any attempt to balance profit-making with planning and regulation.

This political capture today takes the form of demands for growth. Rachel Reeves, supposedly a Labour chancellor, is desperate to ensure a growth in GDP even at the cost of environmental protections and regulations. She said earlier this year: "Today we are taking further action to free businesses from the shackles of regulation. By cutting red tape and creating a more effective system, we will boost investment, create jobs and put more money into working people's pockets." Keir Starmer, the prime minister, is even more myopic, calling for "growth, growth, growth".

The Scottish government also appears to have nailed its colours to the mast of economic growth and job creation, almost at any cost. The fact that the British and Scottish governments and the local authorities and agencies are not stopping the fish farms from causing such harm locally is not even the most dispiriting part of this battle. It's the fact that the public authorities are actively supporting the farms, including with generous subsidies. Neoliberalism claims to be about small government, but it has never curtailed state handouts to the captains of industry.

The massive cash injections into the industry also include millions of pounds of public money from the UK Seafood Fund, which is managed by the Department for Environment, Food and Rural Affairs (Defra), and from the Scottish government's Marine Fund Scotland. The UK government gave Mowi \pounds 7 million through the UK Seafood Fund between 2022 and 2023 alone. This is five times the amount of tax paid by Mowi to the UK Treasury in 2022, from revenues of \pounds 4.7 billion. Mowi spent \pounds 2 million of this cash to buy equipment to rapidly process fish, which is projected to increase throughput from 65,000 to 95,000 tonnes of fish annually. Mowi also received \pounds 5 million to establish a new broodstock farm for breeding fish, which will result in as many as 30 million fertilised fish eggs per year.

Mick observes: "The government funds fish farming – it has given millions of pounds to buy lots and establish projects." Peter points to the irony: "The government funds the growth of the industry, and then it funds the agencies and regulations that are supposed to limit that industry. This is a clear conflict of interests." Rick agrees: "It was a real blow realising that's the way democracy works. There is nobody in the government, as far as we could tell, that cares about the environment."

The reality, as the fish farm crisis on the Scottish coast has demonstrated, is that "growth" does not translate into jobs. A member of the Friends of Loch Hourn, who did not give a name, explains: "There's a misunderstanding locally that by opposing the farms you are by extension opposing new jobs, because people are thinking there will be more jobs." The Loch Hourn farm only supports nine local jobs. Rick concludes: "There is no social licence for this exploitation." Mowi Scotland has invested more than £300 million in private capital since 2019, and increased staff numbers across the country by 1,237 in 15 years. This works out at about £250,000 in investment for each job created.

VIENNA

The students in Vienna learned through the fishing game how to manage our imaginary commons. I was able to

persuade my village to act in the common good in part because I was already familiar with the myth of the tragedy of the commons and Professor Ostrom's brilliant rebuttal. What I learned from the experience is that a lack of scientific knowledge is not the only obstacle we have to overcome. A few students immediately solved the mathematical problem of maximising the number of fish that could be harvested. The fundamental issue we had to address was one of trust. If we do not take out the most fish, how can we know that the 'rival' villages won't exploit our good nature? How do we address Professor Hardin's paranoid dream?

My Vienna circle solved these problems by immediately bringing the villages together into one central council. We created space for the mathematicians, the quiet and thoughtful type, to explain their work. We won agreement that the villages would each disclose their catch to the council. Further, we won consensus that at the end of the game we would pool our resources and announce our grand total. Interestingly, the one argument that did not work was that the fish were not real, and it was just a game. We celebrated our success, and we celebrated most the people who had, in the heat of the moment, risked the humiliation of loss to join the community of trust.

In the real world, of course, the challenge is significantly greater. We do not live in a free market of ideas. The fact is that Professor Ostrom's work had ethical foundations and academic vigour lacking in Professor Hardin's speculative article. The "inherent logic" of the tragedy of the commons has now been thoroughly tested with the end of the commons, the removal of regulations, the end to quotas and the abandonment of attempts to limit greenhouse gas emissions into our shared atmosphere. The result of all this, back at Loch Hourn, is the overexploitation of seafood, or wildlife. Norway, a bastion of social democracy, has still produced Mowi, a corporation making huge profits while denying any negative impact from its operations on the natural environment.

But all this has not resulted in our governments coming together to manage shared resources in a way that is equitable and sustainable. In reality, it is those with wealth and power who decide the outcomes. And usually they have gained that wealth and power precisely by violating any sense of the commons, the common good. The result is rampant greed, corruption and war. Internationally, the emptying out of the state, of regulatory agencies, has meant that criminals and sociopaths rise to the top. This explains the Trump presidency in the United States, and the return of rampant deregulation and trade wars. The acquiescence of Starmer in the UK has meant the rich get richer without progressive taxation while the poor have to decide between heating and eating.

What has been lost is a past where our common environment is resplendent, and a future where our societies could have been commons of equal abundance. The lesson we should have learned is that unfettered competition leads to resource exhaustion. Without community, without democratic management of the commons, everything will be lost. Those in power remain trapped in Professor Hardin's nightmare – where those who take the most win, and everybody else is simply a loser.

COMMUNITY

Peter has now given up on fishing for a living. Ironically, the last straw was new regulations. His boat, which had served him for decades, fell foul of new standards introduced since it was last inspected five years previously. The rules stipulate that, among other new things, the back deck must be 20cm (8 inches) above the waterline. "The difference was under an inch," he says. We live in a time when corporations acting at industrial scale have the money and influence to stop regulations that threaten their bottom line, but individual fishers, and even small businesses, can be put out of business and have no means to fight back. Peter's story has been repeated up and down the country as fishers find that boats they have worked happily and safely for years, even decades, suddenly no longer comply.

The Friends of Loch Hourn have lost too much, but what they have gained from this fight is a sense of community and solidarity. Rick, who moved from the US to the west coast after completing his PhD in the 1970s, said: "One positive thing that has come from this is that I was never part of the community. I would come across in my boat just for my shopping. I did not really know anyone in the village. It has really pulled people together, we have banded together. Everyone had something to offer. We just divided up the work. Good things have come out of it, but that has nothing to do with the salmon farming. It has united the community, it did not divide the community." The whales and dolphins still frequent the loch, and, Peter notes, "their presence is a real delight when it happens".

Peter, Rick and Mick can also find solidarity around the world. Salmon farming is encountering fierce resistance, from Scotland, Norway, Iceland, France, Canada and the US in the northern hemisphere to Argentina, Chile and Australia in the southern hemisphere. More and more communities are rising up to oppose the worldwide expansion of salmon farming, many of them under the umbrella of the GSFR, with the international alliance now comprising more than a hundred NGOs, activists, scientists and individuals from 19 different countries. Agustina Copello from the GSFR said: "Through the GSFR, we are uniting this resistance into a powerful global movement – not just to fight back, but to create a future where food systems truly respect nature and people."

This Author

Brendan Montague is editor of The Ecologist.

DISCLOSURE

Brendan Montague attended the Alternative Economics and Monetary Systems (AEMS) summer university programme in Vienna and his tuition and accommodation costs were funded by OeAD Student Housing. The tuition fee to join AEMS is $\epsilon_{1,390}$, with some scholarships available, with accommodation in a student residence in Vienna available for an additional ϵ_{300} . Students and professionals from the UK can apply now to join this year's course, which runs from July 14 to August 1, 2025. More details about the programme can be found at: AEMS at a Glance – Alternative Economic and Monetary Systems – OeAD student housing. Brendan's trip to Loch Hourn during 2024 was part of a press trip organised by the Highlands and Islands Environment Foundation and The European Nature Trust, which included travel, accommodation and sustenance.

ECOLOGIST WRITERS' FUND

The Ecologist Writers' Fund was launched to support contributors who are from, or who write about, communities and identities that remain marginalised within the environment movement and the journalism industry. This includes, but is not limited to, BAME, LGBTQI+ and disabled people. The fund is supported by readers of *The Ecologist* online and subscribers to our newsletter. *The Ecologist* Special Series is funded by trusts and foundations and not through the EWF. However, we hope those who have read and benefited from the series will consider donating to the writers' fund online.

THE ECOLOGIST

The Ecologist is a news and analysis platform with a focus on environmental, social and economic justice. Our strategic aim for the coming years is to focus on the fossil fuel industry and its impact on people, society and the natural environment. *The Ecologist* is published online. Editorial Team: Brendan Montague and Eleanor Penny. The Ecologist online is a member of the newspaper regulator IMPRESS.

THE RESURGENCE TRUST

The Resurgence Trust is an educational charity (Charity Number: 1120414) that aims to improve our connection to each other and to nature. The charity examines how we can reconnect with the living planet from the perspectives of society, economics, community and individual wellbeing. The trust publishes the *Resurgence & Ecologist* magazine, *The Ecologist* online and Resurgence.org, as well as organising events at its centre in Hartland, Devon and in London. The trust is funded through its members and with some donations from a number of trusts and foundations which support environmental and social change. The work of the trust is overseen by its board of trustees.