

'Reality must take precedence over public relations for nature cannot be fooled' – Richard Feynmann

https://www.visualcapitalist.com/wp-content/uploads/2022/11/global-co2-emissions_fullres.png

Entering the age of permacrisis and what it means for us

We are in a polycrisis which has its roots in the multiple environmental crisis we face; climate, biodiversity, energy to name a few. It's clear at least to me that we need radical transformation of our economy to tackle these crises. This means we need to change not only how we ship, but what we ship. I'm going to talk about the polycrisis, the links to consumption and production, along with a framework to think about solutions and then some reflections on policy.

The planetary emergency is all around us. Record-breaking temperatures , devastating floods with millions displaced losing their homes , mega storms, rivers drying up, weak economies, ongoing Covid-19 infections, a devastating war in Ukraine, and heightened inequality. It's been quite a year, and it isn't quite over yet. The COVID-19 pandemic has raised awareness of humanity's escalating vulnerability to crises. ["Business as usual," says United Nations Secretary General António Guterres, "could result in breakdown of the global order, into a world of perpetual crisis."](#)

Under these circumstances, the Collins English Dictionary recently announced an entirely appropriate word of the year for 2022: permacrisis. An extended period of instability and insecurity, especially resulting from a series of catastrophic event (or polycrisis)

Polycrisis has two core features of systemic risks:

1. An unexpected problem that arises in one part of the system quickly spreads to disturb the entire system.

2. The disruption of the initial system may have spill-over effects that disrupt other systems.

We saw this with Ever Given where one ship blocking the canal disrupted everything due to the high interconnectivity among system elements.

Through Covid-19 crisis we also saw the knock-on effects of broken supply chains, ranging from food shortages in some parts of the world, to soaring energy prices, increased poverty as incomes fail to keep up with inflation, and recession elsewhere.

Two trends are powerfully contributing to risk acceleration and amplification of the polycrisis: the enormous growth of resource consumption and pollution output beyond ecological boundaries; and the vastly greater connectivity enabling greater volumes and speeds of material flows, energy, and information. This constant maximization of the efficiency and speed in the supply chain means there is no space for resilience, something we need to prioritise in the escalating permacrisis.

Now let's focus in on elements of the permacrisis;

Let's first look at the Climate crisis

Environmental impacts of climate heating have arrived much earlier than even scientists predicted. Rising greenhouse gas are setting off a chain of events that is changing everything. Our once seemingly stable planet is starting to look unrecognisable AND unpredictable, chaotic even.

Every moment we fail to act to reduce consumption of fossil energy & resources we reduce the resilience of systems we need. For our water to drink, our food, our economies, our happiness, and our peace.

Every year we fail to act we move closer to dangerous tipping points. Tipping points with cascading knock-on impacts and which are possibly irreversible. Some of the most imminent tipping points that risk being triggered already with our current 1.2 degrees of warming are the collapse of the Greenland ice sheet, west Antarctic ice sheets, coral reef die off and permafrost thaw.

We are now likely to reach 1.5 degrees warming by 2030s. Triggering these tipping points will destabilise weather globally including in Europe, result in sea level rise and disruption to the water cycle (more floods, droughts, extreme weather). Our coast lines, ports and trade routes are particularly vulnerable. Every fraction of a degree adds risk.

The UN Secretary General stated at the beginning of COP27 that we need **a radical transformation of society** to have a chance of avoiding exceeding 1.5 degrees of heating limit. This requires a shift to economies where societal wellbeing is balanced with ecosystem boundaries.

A recent example of that can be found in France, where the Prime minister called for energy sobriety to tackle the energy crisis. The war in Ukraine has brought into sharp relief the heavy dependency of the EU on Russian fossil fuel energy, highlighting the vulnerabilities of this dependency, and making it even more urgent to move away from these resources.

Ultimately, we need a radical transformation that puts people and nature first, and not capital interests. We must question the dominant economic growth paradigm or propose regulatory frameworks to curtail the carbon excesses of the global minority responsible for the lion's share of emissions.

We need **financial transformation** where developed economies should tax the windfall profits of fossil fuel companies and remove fossil fuel subsidies. Funds should be re-directed in two ways: to people struggling with rising energy and food prices; and to countries suffering loss and damage caused by the climate crisis. At COP27 in Egypt a Loss and Damage fund for vulnerable countries was adopted and now we need to fill the pot. **A radical transformation of society is also needed to tackle the biodiversity crisis.** The COP15 on biodiversity is happening next week at the same time as the next IMO negotiations and aims to give biodiversity and ecosystems the same international protection as the climate. Biodiversity loss is ranked as one of the biggest threats facing humanity and millions of species are under threat. Experts say the rate at which species are becoming extinct is accelerating. Unsustainable production and consumption are identified as the main drivers of biodiversity loss. [See Living Planet Report 2022.](#)

But not only biodiversity loss, unsustainable production and consumption also drive the energy and climate crisis



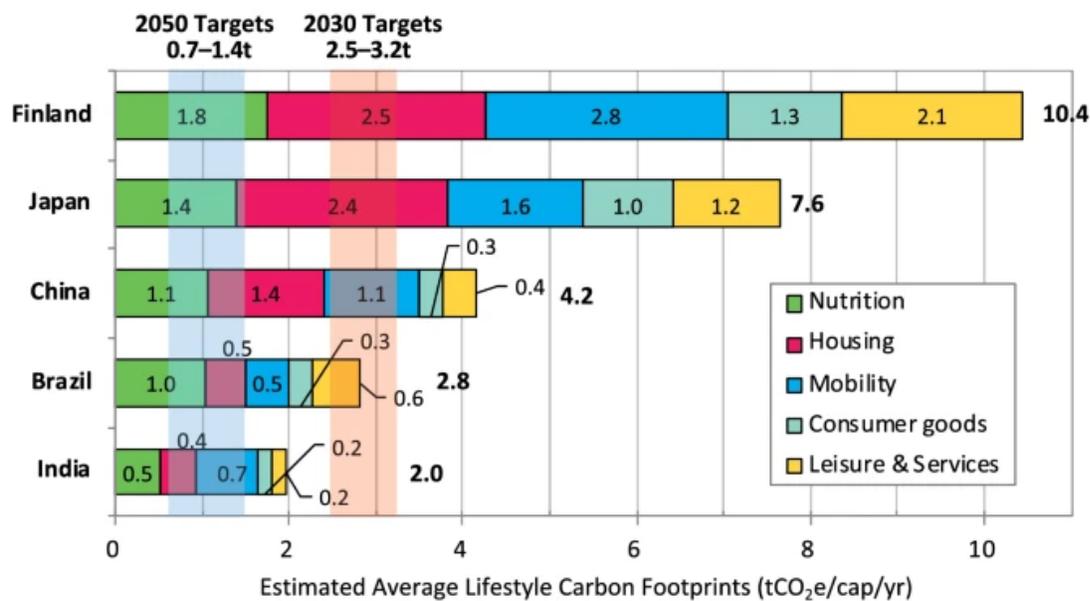
Every year, [the day 'humanity has used all the biological resources that Earth generates during the entire year'](#) is marked by Earth Overshoot Day.

In 1971, it was on December 25th while in 2022 we had already exhausted such resources on July 28th.

In developed countries we are consuming at the rate of 4 earths. Recent reports on sustainable consumption show that we need to reduce our energy and material consumption footprint by up 70% to meet our environmental goals. But we need to do this while maintaining high levels of wellbeing and food security, perhaps learning from countries like [Costa Rica which has high](#)

[wellbeing with relatively low environmental impact](#) (Model of wellbeing economy).

Shipping carries over 80% of the global trade volume. It is an essential part of the global supply chain of resources and goods, and therefore an accomplice of this growth and over-exploitation of the earth's resources.



Source: <https://hotorcool.org/1-5-degree-lifestyles-report/>

To tackle the crisis in relation to shipping, we need to do more than just switch from fossil to renewable fuels. If we were to switch shipping from fossil fuels to renewables at today's levels of trade, then shipping would require installing each year 1.5 times the total wind capacity installed in 2019 in Europe. That is a massive energy demand. Renewable energy is likely to be scarce and expensive with competing needs.

Therefore, we must look beyond fuel centric approaches to decarbonising shipping and find ways to first reduce energy and material consumption as much as possible.

The [OECD](#) and [World Bank](#) have previously used the ASIR framework as a tool to rethink transport. And we can think about its use for addressing the permacrisis in relation to shipping

- 1) AVOIDing unnecessary emissions
- 2) SHIFTing the way we do things
- 3) IMPROVing operations
- 4) ENHANCE resilience

When I think about this framework this is what comes to my mind:

1) Through use of data to optimal route and load ships, we can AVOID about 38% of emissions according to some researchers. But we also need to stop trade in environmentally destructive or wasteful products. Shipping underpins a global economy of make, use, dispose and waste. A system that we urgently need to shift away from. It's clear that we must not only green our energy supply but also address overconsumption.

2) We can SHIFT our ways to propel ships by using sails and other wind technologies. With scarce and expensive renewable energy each transport mode should take advantage of the greenest way to power that industry. One of the beautiful aspects of ships is that they can directly harvest wind energy with sails, unlike other transport modes. And we perhaps can think about a SHIFT in trade patterns or energy production. We have a hyper consumption problem in the global north, but in places in the global south there is clear need to scale reliable energy infrastructure & zero emission shipping services to provide for basic human needs.

3) To IMPROVE operations we can slow down ships – a 10% speed reduction across the global shipping fleet could result in a 13% reduction in overall GHG emissions from the shipping industry. But it will also reduce vastly other huge environmental impacts of shipping: a 10% speed reduction would reduce underwater noise from shipping by around 40% and ship strike risk to whales by 50% - those strikes are currently the leading human induced cause of death of whales. [And recently an adult female humpback whale nicknamed Fran, said to be the most popular whale in California, was killed by ship strike in the bay area. It was the fifth whale to be killed by a ship strike in the San Francisco Bay Area this year...](#) What a tragedy. Not just for nature and biodiversity but also because of the critical role these whale populations do in fixing carbon in the ocean.

4) and finally, to ENHANCE resilience and add redundancy we could reduce the length of transport along each node by diversifying, reshoring, or creation of regional or localised supply chains.

These are my interpretations of the ASIR framework.

This is the crucial decade in which we all must lead the transition to a more sustainable maritime transport sector. The times we are living through are unprecedented and require collaboration on a scale not seen before. But brainstorming around such ideas I think can help us create new solutions. Currently there are very few places to even debate such systemic interventions to shift shipping to an industry within ecological boundaries... Although I'm pleased to say that at Seas at risk we are involved with the European Parliaments Beyond Growth Conference May 2023 where some of these ideas will be discussed. Here is the [link of the summary of the 2018 Beyond Growth conference.](#)

Now action in various Policymaking spaces...

IMO Action

So next week during the technical meeting on greenhouse gas emissions, I hope there will be a change of course. That policymakers will turn up ready to make ambitious proposals that align with the science and deliver the deep emissions cuts that we need. Policy to halve emissions by 2030, reduce short term climate heaters like black carbon and Methane and agree to full decarbonization of shipping well before 2050. There is urgent need for action now and the low hanging fruit is to make [deep cuts to Black Carbon \(BC\) emissions from shipping in and near the Arctic.](#)

We should support the developing nations call for a carbon levy and support for just transition and climate mitigation, especially for those who have least to do with creating the climate crisis. The shipping industry is known push back on regulations, but we should not delay bold action which could yield a direct economic gain of \$26 trillion through to 2030 compared with business-as-usual.

Port Action

Ports are critical to our global response to the permacrisis. Shipping contributes 2.8% of all carbon emissions and carries over 80% of volume global trade, making it an essential part of global supply chain of resources and goods, all of which pass through ports. Ports must transform from hotspots of fossil fuel consumption and pollution to thriving hubs of sustainable circular economy and environmental protection. Therefore, we need comprehensive EU ports policies.

- 1) Stop new fossil fuel bunkering projects. We must accelerate port electrification and zero-emission renewable fuels.
- 2) Collaborate to create green circular trade routes and create clean shipping corridors and advance a common standards and investment framework to verifiably achieve them. When thinking about green shipping initiatives we must include developing countries in those initiatives to enable a just transition.

3) Help put ships on mandatory zero-emission pathways (I recommend looking at my colleagues [Ports 9-point Playbook; Ports for People](#)).

EU action

Clearly the EU is a key global player when it comes to tackling climate emissions from shipping through the green deal. The Green Deal calls for a 90% reduction in GHG emissions in transport and aims to **safeguard ecosystems and biodiversity**. EU proposals must also align with the science and tackle short term climate forcers, cover all shipping activities and be propulsion energy centric rather than fuel centric while delivering on its promise of cutting emissions by 55% by 2030. The current proposals are not fit for that purpose.

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In addition, EU must step up diplomatic initiatives to call for more climate policies efforts from non-EU countries and with other regions to develop similar packages of measures. [Recent studies from Transport & Environment show 84% of shipping traffic goes through Europe, China and the US](#). If these three economies would agree on bi-lateral measures to reduce their maritime emissions including carbon markets, pollution taxes, energy efficiency target, speed reduction, zero-emission fuel standards, it would create a '*de facto*' global regulatory regime.

Times up folks. Time to enable change by design rather than ignoring the reality, then being forced to change by disaster. Time for a complete transformation of our economies and ways of doing things. All of us here (I think) are in a bubble of climate privilege. It's already too late in other places of the world. For the 33 million displaced in Pakistan or those displaced in Nigeria from floods. They are being impacted NOW by our failure to address climate heating emissions and

over consumption. We haven't mobilized the political will for change. But we must. For some it is too late; for many others in the global south what we do can make a difference.

I do want to leave you on a positive thought, after all I don't want to alienate you all and have no one to talk to later at the reception! We all have more power than we probably think we have. Now I'm a bit of a fan of science fiction and stories of the future. A feature of lots of time travel and futuristic stories is this idea of people travelling back in time and some small change radically changing the present. But few think about this in another way round. Perhaps we can radically change the future by some small thing we do now. Perhaps we can all reflect together today and think what things we are can do today that will mean our worst projections of climate hell in the future do not become reality. The future is ours to create. Thank you.