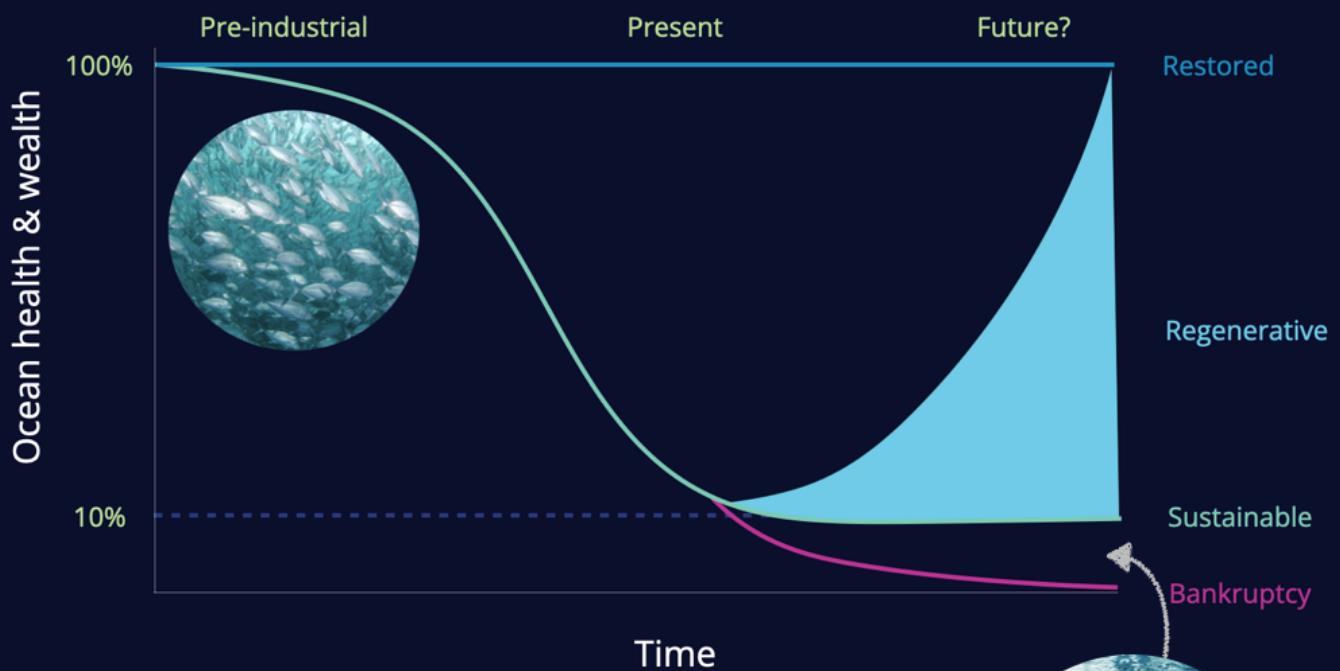


# Will we Bankrupt the Ocean with “Sustainability”?



“Sustainability” improves activities, but doesn’t stop or correct for past mistakes; the ocean continues to head towards tipping points and collapse (bankruptcy)



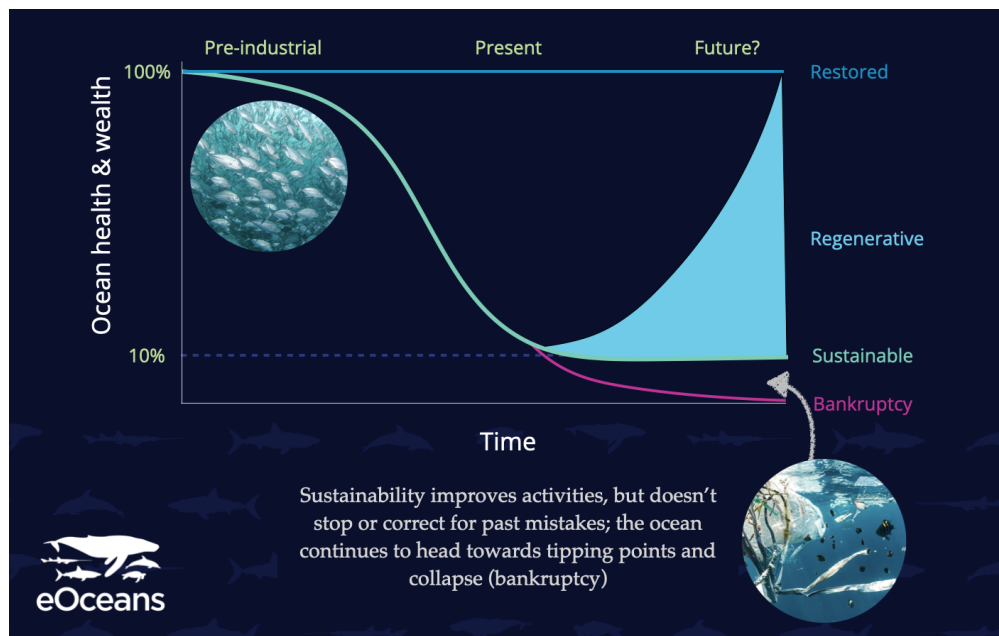
## Will we Bankrupt the Ocean with “Sustainability”?

### A simple bank account analogy.

Imagine your bank account was depleted by 90%. You deploy strategies to slow your spend to avoid bankruptcy. These “Sustainability” activities help you to maintain your account for longer. But, because you have already committed to payments that keep drawing down your account, they can’t help you avoid bankruptcy forever. For that, you need to rebuild your account with “Regenerative” activities.

The ocean is like your bank account.

Regardless of how you look at it, misuse has depleted the ocean to a fraction of its health and value. To avoid collapse (bankruptcy), both “Sustainable” and “Regenerative” activities are urgently needed. Both suites of activities need to be measured, prioritised, and appropriately invested in to rebuild ocean health and wealth. To date, this has not happened because it’s hard. The [eOceans](#) platform has a variety of tools to measure, track, and prioritise activities – to focus on those with the greatest positive impact for the ocean and the people that depend on it.



The ocean is like your bank account. “Sustainability” activities help maintain your bank account (the ocean) for longer. But when the account is already depleted and is still hemorrhaging, “Regeneration” is needed to avoid bankruptcy.

The ocean is depleted and still declining – it needs prudent activities that rebuild ocean health and wealth. Photo: eOceans 2022

### Growing the Blue Economy.



There is a push to grow the ocean economy, and “[blue economy](#)”, because the ocean is seen as a new frontier that holds immense resources to grow wealth, while also being indispensable for slowing the impacts of climate change, building food security, and providing novel medicines.

While it’s encouraging to observe this growing interest, especially because it’s drawing a diversity of new perspectives, skills, and organisations, there is need for caution and evaluation to prioritise activities that have the greatest positive impact for the ocean.

### **Sustainability in the Ocean.**



“Sustainability” claims to improve activities to the point where they can be maintained over long time periods, but the scale of the activity, improvements on the activity, and how far ocean health has been depleted will likely determine the time to tipping points or collapse (bankruptcy). Photo: Conversion of mangroves to commercial aquaculture ponds, India. Srikanth Manneपुरi / Ocean Image Bank

The “[Sustainable](#)” or “[Green](#)” Economy looks for ways to improve activities to make them less harmful. The goal is to become “Sustainable”, where activities can be maintained at a certain level indefinitely.

In the ocean, “Sustainable” activities are often synonymous with “Blue Economy” activities, which can include:

- modified fishing gear that lowers the chance of bycatch, including entangling whales
- energy efficiency (e.g., vessel efficiency, wind farms, tidal energy, etc.)
- plastic and ghost gear removal
- sewage/wastewater treatment plants
- noise/sonar reduction or displacement
- reduced agricultural runoff
- aquaculture with lower impact per calorie
- some types of habitat restoration and artificial reefs

The majority of ocean innovations and investments focus on these types of activities.

Like the “Sustainable” activities in your bank account, if these activities work they should hurt less than their predecessors and, necessarily, slow the rate of decline. They are essential for gaining the value society wishes to take from the ocean on longer timescales.

They [can] hurt less, but they rarely reverse the damage that has been done.

### **Do we aspire to “Sustain” a depleted Ocean?**

Regardless of how you look at it, ocean health and the ecosystem services our ocean provides have been significantly depleted. [“Ocean Wealth” is estimated at \\$24 trillion, but is “dwindling fast”](#) despite countless “Sustainability” measures. The majority of this decline occurred over the last century, due to misuse, mismanagement, miscommunication, and delayed action.

These decisions, including those being made today, have put in motion large scale changes that are still unfolding.

The [Canadian cod collapse](#) is one infamous example. On the east coast of Canada, where I live, the hyper-abundance of cod shaped the social, economic, and cultural landscape over 500 years. However, in a few short decades, systematic overharvesting of this species reduced it to 1% of its initial population, and [likely] shifted the ecosystem and sociocultural landscape forever.





Over 500 years, Atlantic cod shaped the social, economic, and cultural landscape of Atlantic Canada, but systematic overharvesting and mismanagement of this species reduced populations to 1% of its initial population, and [likely] shifted the ecosystem and sociocultural landscape forever. Photo: Unsplash | Ricardo Resende

There are countless other similar examples of loss (near bankruptcy) of ocean health and wealth, such as:

- [The systemic wide-spread overfishing of the world's coastal and continental shelf waters that costs \\$83 billion per year](#)
- [Marine heatwaves damaging \\$800 million to \\$3.1 billion worth of fisheries, aquaculture, and carbon storage per incident](#)
- [Invasive species wreaking havoc on native ecosystems at a cost of \\$23 billion a year](#)
- [Overfishing of sharks at a rate of 63 and 273 million per year has resulted in one-third of shark species being threatened with extinction and threatening multi-million dollar industries](#)

Again, likening the ocean to your bank account, even though you've put "Sustainability" activities in place (e.g., modified fishing gear that reduces bycatch), you are still making unavoidable payments that continue to draw from your account (e.g., degraded ecosystems, acidification, invasive species). Tipping points and collapse (bankruptcy) remains on the horizon. Just like your bank account, there is an urgent need to restore ecosystem function, biodiversity, biomass, blue carbon, etc.



## The need for Ocean Sustainability and Regeneration.

The ocean covers 71% of our planet and holds 97% of the water – water is the important buffer against climate change, essential for maintaining high levels of biodiversity that are crucial for life to prosper, and is a necessary source of oxygen and sustenance for our rapidly growing population.

Getting both “Sustainability” and “Regeneration” right – where ocean health and wealth are rebuilt to compensate for past decisions – is one of the most important challenges to overcome this decade.



About 40% of humans live along coastlines and depend on the ocean to survive, but decisions made in the past have put in motion large scale changes that are still unfolding and threatening the values that current society depends on.  
Male, Maldives Credit: Ishan Hassan / Ocean Image Bank

## Does this potential for bankruptcy expand to land?

Absolutely!

[By all accounts, land is nearing bankruptcy \(tipping points/collapse\)](#) like the sea. Everything from megafauna (e.g., wolves, rhinoceros) to birds, pollinators, and amphibians are depleted. Land ecosystems continue to be degraded, fragmented, and paved, which limits their regeneration potential.

Many countries are pushing programs to convert to more “Sustainable” options – such as lower/different energy sources like [zero emission vehicles](#), solar panels, heat pumps, etc.



All of these still deplete the account, just at a slower rate.

Ecosystems also need to be protected and restored with “Regenerative” activities to avoid bankruptcy.

### **Need to prioritise activities**

Some “Sustainability” and “Regeneration” activities are well researched and clearly provide incremental improvements. Many projects, however, lack research, expertise, and measurement, and are [green-washed](#) (or [blue-washed](#) in the ocean space) by audacious pitches and marketing. In my expert opinion, many “Sustainability” and “Regenerative” projects in use today are likely doing more harm than good.

Just like your bank account, it’s important to figure out which ones are justified and to focus on those that have the greatest positive impact, and to discontinue those that don’t.

### **Call-to-action: measure activities using the eOceans platform and analytics**



eOceans captures and analyses multifaceted social, anthropogenic, environmental, biological, and physicochemical data at the spatial scale of interest in real-time. It can be used to calculate, track, and prioritise different Sustainability and Regeneration projects to focus efforts that rebuild ocean health and wealth. Credit: Mark Fitz / Ocean Image Bank



At eOceans, we have, and continue to build, a suite of digital tools and expert-developed analytics to help governments, organisations, communities, businesses, investors, and incubators track and evaluate the impact of their “Sustainability” and “Regeneration” activities.

Our goal is to help others make informed, science-based, transparent, and calculated decisions.

The eOceans Platform-as-a-Service supports any interest group to track any species, issue, activity, environmental condition at any spatial scale, in real-time.

For example, our MPA Health Tracker™, helps evaluate the success of marine protected areas (MPAs), and other marine spatial planning strategies. Do MPAs protect or restore species and ecosystems, and provide social, economic, and cultural opportunities? Could they be improved by redefining the boundaries or permitted/excluded activities?

Our Smart Fishery Tracker™ (coming soon!) helps fishers, fisheries, managers, buyers, and decision makers have the data, analysis, and insights they need to understand their stocks and ecosystems, enabling dynamic management strategies that adapt to change. Can fishing effort be moved to optimise catch and reduce bycatch? Does fishing effort avoid endangered species?

### **Focus efforts on activities with the greatest return**

To avoid tipping points and collapse (bankruptcy), a diversity of both “Sustainability” and “Regenerative” projects are needed. All should be measured to evaluate their impact on the ocean and each should be prioritised to focus on those that have the greatest positive impact on ocean health and wealth.

**For the ocean. For us.**

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