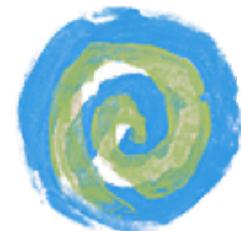


Levine Family Foundation

Marine 2050 Workshop



Levine
Family
Foundation



Key Insights & Discussion: Diet

The group felt that diets would continue to evolve but perhaps not transform over the period to 2050. The critical areas of focus were:

- Reducing waste from supply chains and how important this was to increase efficiency and to reduce the need for over fishing. Particularly in countries with less infrastructure there was a sense that waste could be 30-40% of total catch and that this could be cut out completely.
- The role of preservatives in fish and seafood preservation is key to waste reduction; however this could be a challenge both scientifically and communication/perceptually as people may not want ‘preserved fish’ as opposed to ‘fresh fish’.
- The role of lab grown food products, particularly fish products, was felt to be inevitable as a growing trend leading to a respective need for communication and advocacy. There was a lot of discussion over how ‘ethical’ this was and the appropriateness for vegans/vegetarians – an area for further exploration!
- How we need to stop working solely on ‘fishing’ and rather consider the ocean in all its aspects.
- How diets are set within the context of hunger, availability and desire and that they are therefore both local and cultural. Any work in the area needs to be led locally to cover both trends and needs.
- How we need to support ‘injection’ of fish protein into plants to help cultivation.



Levine
Family
Foundation



Key Insights & Discussion: Technology

The group considered the role of technology and marine life:

- We have already mechanised and automated many aspects of fishing – this trend will continue.
- Innovation offers amazing opportunities for organisations but tends to sit in the hands of large corporations. NGOs and communities don't have access to these tools. We need to change this and to create technology that's adapted to be more affordable and suited to community needs.
- Technology could be used to improve collaboration between allied actors such as the small scale fisheries and international development sectors etc.
- Tech could be used for enforcement and increased accountability but could also be used to avoid accountability or overfish to an even greater extent.
- The fishing industry is a key employer, however in the future his robots may fish instead of people.
- Deep sea mining could come into conflict with small scale fisheries.
- There are opportunities for use of big data in this field.
- High seas fisheries might decline due to lab-grown seafood.



Levine
Family
Foundation

Key Insights & Discussion: Politics

The group felt that many 'threats' for 2050 are already real - erosion of trust in international institutions and diminishing power of states BUT the pendulum could still swing back if a few key battles are won. The big questions were over whether civil unrest will be part of the path to change. To develop more progressive politics, the group focused on:

- The media and how vital it was to regain the benefit of news sources and social media for the general public – there was a feeling that the far right have used these very adeptly to climb to power.
- The fact that corporations are more and more powerful and states are weakened and the need to rebalance.
- The need to build more strength within communities, restore nature, and build new political models. We could conduct localised experiments of new democratic/economic models to know what to do next.
- There was a question on how to bring the general public into multi-lateral governance and have more influence and revive trust and participation in democracy.
- There was a feeling that campaign finance issues are key - a good example being the USA; who is funding political parties and candidates; should they be allowed to?
- There was discussion about what Hactivist groups such as Anonymous are doing as their work would be key at this time.

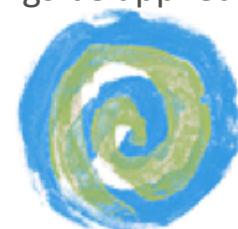


Levine
Family
Foundation

Key Insights & Discussion: Finance

The group discussed the main barriers to diverting finance into ocean conservation:

- The tension between nature-based solutions and the market - the more right the solution is in terms of nature, the less suited it is for regular financing, and as soon as you bring in the forces of capitalism, you tend to throw off the slow and incremental work of nature. Government bonds therefore might be the right vehicle to address this mismatch.
- There is a need for definitions/market metrics of what constitutes the blue economy. There is big demand for blue investments from large banking clients, but they demand high returns and watertight eco-credentials.
- The need for an economic/financial system that (quantifies or puts a price on nature, properly accounts for it and then protects it).
- There is not enough connection between mainstream finance sectors and non-profits at ground level. The latter don't have financial expertise. Impact investors have a lot of cash but are lacking a pipeline towards a long term goal.
- There is an issue with many small projects that large investors can't invest in. Blue Finance in France was mentioned as best practice, in terms of aggregating funding (in their case to create marine protected areas). More grouping together is clearly needed.
- Governments are funding destructive practices through subsidies. Stopping these would solve many issues. There is a need for increased data, transparency and education with regards to subsidies.
- What lessons can be learnt from the way terrestrial carbon sinks have been monetised? How can these findings be applied to blue carbon?
- Do we need a new vehicle to help build community based finance modules?

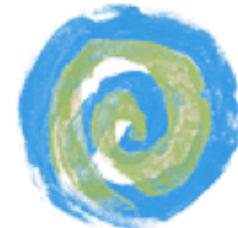


Levine
Family
Foundation

Key Insights & Discussion: Climate Change

The group discussed climate change and its relationship to marine health; some key thoughts:

- Even if we managed to stop carbon emissions altogether right now, given current atmospheric concentrations, the earth is still going to get warmer. We should assume this as any new baseline for our recommendations on marine action.
- It has been already proven that MPAs are more resilient to climate change, and warming waters; however, they will need to become much more dynamic in the way there are managed due to fish migration and Polar changes.
- There was discussion about the governance structure needed to manage the oceans). We need a UN 2.
- We need more transparency to allow better management schemes. Amongst others, there is a big lack of transparency in vessels ownership. We could enforce better accounting rules by limiting trading of public companies that fail to report their marine assets.
- There was discussion about how to capture the attention wave that will be generated by rising sea-levels?
- The effect of climate change won't be felt only by the fishing industry. The fishing industry generates 47% of marine jobs, but it only represents 6% of the ocean-based economy.



Levine
Family
Foundation



Ideas Wall: What If...

1. We built a knowledge exchange function between the finance sector and NGOS?
2. We created new marine governance systems focused on managing fisheries, increasing resilience and reducing emissions?
3. We penalized environmental crimes properly and put offenders behind bars?
4. We foster a (radical) online resistance willing to engage in direct action on unsustainable and/or illegal practices?
5. We use philanthropy to support pockets of resistance in resilient communities?
6. We really understood the destruction of fish and marine habitats that will exist under future ocean conditions and promoted broad understanding of regional impacts to drive change?
7. We increased focus on blue carbon projects – coastal and marine animal based - to sequester more carbon, build habitat and enhance coastal resilience?
8. We innovated for zero waste supply chains?

9. We worked to theologically (?) approve vegan -appropriate and culturally appropriate lab-grown animal protein (e.g. fish)?
10. We aggregated potential pipeline of local investable sustainable fisheries/marine/blue carbon projects to fulfil increasing demand from investors?
11. We redefined fishing as a privilege not a right in global law and based it on ocean-spacial impacts (not just fishing but impact on water quality, marine life, seabed, etc.)?
12. We built a global funding pot to push for political, consumer and corporate changes to more sustainable diets (with local rather than international interpretations/applications)?
13. Tech could help provide solutions to sustainability and rights in the ‘small scale’ Global South?
14. We drew attention to the failure of the current economic model related to marine ecosystems?
15. We made it mandatory to provide data on who owns boats, their quotas, landing rights, etc. and automatically fined breaches?
16. We could trace every seafood item from net to plate?



Levine
Family
Foundation

Pitch One: Seafood Tracer

The idea was to increase transparency using blockchain technology and tech-enabled stock coding/tracing in order to allow for better awareness and accountability and then to make corporate and consumer use of that 'norm'. Creating a biodegradable tracking device that's placed in the feed of aquaculture fish developed by nanotechnology would make it cheap and easy to trace the fish through the whole supply chain.

A Wiki-Fish platform could be created to facilitating whistleblowing within the industry.

This idea would... prevent the oceans from being fished out, and allow for the regeneration of multiple species.

In order to do it... we need a unified data platform/entity that captures all marine related data. We can start with aquaculture, and later move to wild catch, as initially, aquaculture should be easier to quantify.

Our first steps would be to... prepare initial project plan – integrate a taskforce – identify a leading organisation and kick off with a 'design sprint' at a cost of £25K.



Levine
Family
Foundation

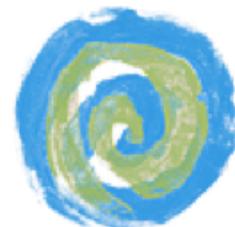
Pitch Two: Finance-NGO Exchange

The idea was to second people from the finance sector and putting them into projects on the ground to support these projects to think about the right financing for their needs, to translate finance terminology and generally increase knowledge and capacity related to mainstream finance. Could also send people from marine NGOs into finance to share their work / needs etc.

We thought about analogous organisations that work to take people with expertise and deploy them in areas that lack expertise: Teach for America, Engineers without Borders etc. Discussed whether it would be useful to set up a similar organisation, but then also discussed that many corporates already have corporate volunteering programmes run by CSR departments - could potentially work with this existing infrastructure.

This idea would... educate finance teams (Chief Investment Officer, Risk Officer, Compliance team etc) on what they need to look for in investments / what they need to steer clear of.

Our first steps would be to... find a delivery partner and get to work with a pilot at a cost of £25K.



Levine
Family
Foundation

Pitch Three: The Planet as a Political System

The idea is to... Map out key decision-making nations/leaders for the changes we want to see in the world and target building civil societies and the support of progressive candidates. Sometimes the blockers are obvious, e.g. USA or China, but they are not the biggest players, e.g. Iceland has blocked marine conservation initiatives in the past. As part of this we would be pushing for an agenda that lobbied for a more targeted political strategy for marine conservation.

This idea would... Build global collaboration by launching a global movement of progressive leaders and support better decision-making on key conservation areas for planetary health.

Our first steps would be to... Map priority areas for ocean conservation and overlay with political ecology map then map crucial upcoming elections & make plan how to influence the public to vote in favour of progressive candidates - e.g. information campaigns, good use of social media targeting, etc.

Cost & timeline... Organisational start-up costs £500k per year - identify key upcoming elections, circles of influence, range of allies and action plans. Campaign costs would depend on the country - influencing a USA presidential election would cost in the hundreds of millions but Iceland could be done more cheaply.



Levine
Family
Foundation

Pitch Four: Automating Enforcement

The idea is... to automate enforcement and trigger automatic fines/trigger investigations as soon as vessels act in breach of their quota, shipping rights, etc. This would involve improved tracking, monitoring and tracing and a globally aligned enforcement process. We would start with licensed vessels then expand.

The tech and data is already within our grasp, what's key is to get the buy in and work to align people, fisher communities and governments.

This idea would... reduce illegal fishing and create a clear picture of risk in fisheries. It would decrease corruption and sea slavery as well as increase income in low and middle income countries.

Our first steps would be to... to prove the concept in a middle tier fishery such as Norway/New Zealand.

We would need... To get to work on the diplomacy to make it happen with some targeted tech spend.



Levine
Family
Foundation

Pitch Five: Aligning Marine & Climate Work

The idea is... to re-frame all marine work as climate work given the integral role of the oceans in greenhouse gas absorption. It would involve mobilising all marine charities as climate change advocates and helping the climate movement and, at the same time, position all types of marine work as part of the solution on climate change.

Our first steps would be to... quantify marine carbon and help integrate it into national climate plans; centre marine work at the heart of climate communications; build better verification, auditing and carbon pricing (anchored in the Global South); quantify the harm of destructive fishing practices; build demonstration projects.

We would need... To do all of the above, which would cost more than £25k but we could get it scoped and moving with some momentum behind it.



Levine
Family
Foundation

