

# BLUE ECONOMY STRATEGY FOR CANADA:

## A generational opportunity for transformative change



Photo Credit: Simon Ryder-Burbidge

Canada's Blue Economy Strategy offers an opportunity to transform our relationship with the ocean. We can design economic strategies that support regenerative activities, prosperity, well-being, and opportunities for many. We must design our future ocean based economy to fit within planetary limits.

The COVID-19 pandemic has laid bare the fragility of the economic systems we have built. In our quest for ever increasing efficiency and profit, we have lost decentralization, diversity and redundancy in many of our markets and supply chains. This strategy has accumulated enormous wealth for increasingly few, but has often left our communities hollowed out and our supply systems increasingly exposed to global political, ecological, and social disruption. We've forgotten that economic systems and profit serve social needs, not the other way around. We've whittled away the resiliency of our economic systems at just the time we face increasing challenges from climate change, biodiversity loss, and growing inequity. Tackling these challenges will require a swift move towards more adaptive systems and space for a diversity of economic actors to test sustainable solutions. This means more inclusive systems of economic governance. A diversity of ideas means a diversity of futures.

The science of resilience and ecology show us that the healthiest ecosystems are those that are biodiverse and abundant with redundancies at many levels. Such ecosystems are better able to adapt and shift as conditions change. Like ecosystems, the strength of our economic system must lie in diversity, interdependence, redundancy and adaptability. We must ensure our use of resources is within natural limits or, even better, regenerative.

**An economy that supports prosperity, well-being, and opportunity for many must recognize the simple truth that our economy is embedded in nature, not external to it.**

**Canada's Blue Economy Strategy could be transformative if a return to abundant marine ecosystems and the long-term health of coastal communities are at its core.**

# FUNDAMENTAL PRINCIPLES & PRIORITIES FOR CANADA'S BLUE ECONOMY STRATEGY

1. Replenishing and protecting ocean abundance and biodiversity is the foundation for a healthy ocean economy;
2. Require immediate, deep emissions reduction in all activities and the phase out of fossil fuels production and use in the blue economy;
3. Centre communities, equity, justice, regenerative economic activities, and opportunities for marginalized people – do not prioritize the same powerful companies, people, and groups again and again;
4. Recognize and protect Indigenous rights to sovereignty and self-governance;
5. Policies and financial mechanisms need to foster and ensure equitable distribution and diffuse economic benefits based in communities;
6. Maintain and prioritize access to marine resources for food security and well-being;
7. Cumulative impacts and risk of all uses and activities must be understood and approached with precautionary, ecosystem-based monitoring and management;
8. Empower communities to lead inclusive, participatory planning and design governance processes that integrate all uses and development;
9. Risk-based regulation and policy development should ensure activities with high ecological and climate impact and risk are more difficult to undertake, require higher monitoring, and receive less or no government financial support

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## WHAT DOES JUSTICE LOOK LIKE IN A 'JUST' BLUE ECONOMY STRATEGY?

The EAC recommends these key considerations for advancing blue justice by Bennet et al.<sup>1</sup>

### RECOGNITIONAL JUSTICE

- Identifying and differentiating rights holders & stakeholders;
- Acknowledging pre-existing rights and tenure;
- Incorporating pre-existing practices, institutions, and knowledge systems;
- Integrating diverse worldviews, perspectives, & values.

### PROCEDURAL JUSTICE

- Facilitating inclusive, participatory, transparent, & accountable planning & management;
- Ensuring that participants perceive that institutions, policies, managers and management actions are legitimate;
- Creating adaptive context-appropriate decision processes;
- Supporting capacity for participation & co-management;
- Ensuring stakeholders have access to justice and conflict resolution mechanisms.

### DISTRIBUTIONAL JUSTICE

- Considering equity in distribution of costs, benefits over time, space, & between groups;
- Designing fair compensation and mitigation mechanisms;
- Adapting management to improve social and distributional outcomes.

# MEASURES OF SUCCESS AND PROGRESS: BEYOND GDP

**Canada's Blue Economy Strategy should focus on increased prosperity, standard of living, and opportunities for many through conscious and specific area improvement and growth rather than a generalized goal of unbounded economic growth.**

It is concerning that the consultation strategy document is largely focused on expanding extractive sectors and industrialized economic growth with little mention of boundaries to resource use. The draft strategy is built on the myth of perpetual economic growth in pursuit of wealth and increased GDP.

Instead, the strategy could be an important opportunity to change the way we measure economic success. The narrow definition of wealth presented in the consultative framework will lead to disproportionate reliance on and investments in sectors that may be good for the GDP and export value but do not reflect accurately

what a prosperous blue economy can bring to our broader well-being. Reinvigorating coastal communities is not going to happen with 'trickle-down' blue economics that promotes privatization of ocean spaces.

Relying on GDP as a measure of success for the blue economy means measuring outputs without accounting for depletion of resources used. For example, the depletion of a fish population increases the GDP even if irretrievably depleted. The loss of centuries-old deep-sea coral is not counted against the deep-sea minerals that were extracted; the GDP simply increases. What is routinely sought after as a measure of economic health – 'economic growth' – is based on depletion of natural resources.

**The answer is not to extend the market system to all of nature, but rather to introduce additional ways to measure wealth, success, prosperity, and well-being.**

Canada's Blue Economy Strategy should include targets and make explicit the indicators and metrics that will guide decision-making and priorities for access and use in our ocean, which is both Indigenous territory and public waters. The consultative framework presents a win-win-win narrative that glosses over the fact that the ocean has finite resources and space. Hard decisions about who and what is prioritized will need to be made. To chart a path that increases well-being and prosperity for our communities, clear indicators and metrics will help align government agencies and give decision-makers evidence-based and transparent tools to legitimize decision-making processes.

## **Examples of well-being indicators of progress:**

- Contribution of activity to absolute reduction of greenhouse gas emissions;
- Targets for number of marine species that recover from endangered and threatened status;
- Net income (including cost, debt) of sectors at finer levels (fishing, energy, aquaculture, etc.);
- Number of families in coastal communities raised above the poverty threshold;
- Proportion of income and benefits accruing to households in lower income brackets;
- Target for high level of Indigenous ownership and employment;
- Target for increased local and marginalized community ownership and employment;
- Time a dollar accrued from economic activity circulates in coastal communities.

The [Genuine Progress Indicator](#), [New Zealand's Living Standards Framework](#), [OECD well-being indicators](#), and [SDG Indicators](#) all offer measures beyond GDP to inform a made in Canada framework.

**Canada could be a world leader in developing a unique framework of blue economic indicators that measure well-being across natural, social, human as well as financial capital.**



## OCEAN GOING WAYS OF LIFE ARE MORE THAN JUST INCOME AND ECONOMIC GROWTH PROSPECTS: THEY ARE THE BASIS OF SOCIAL AND CULTURAL IDENTITY.

Indigenous peoples have millennia-old relations with the ocean and its inhabitants. Communities where generations have shared work and built cultural and social practices on the coasts are intricately entwined with the ocean. If the Blue Economy Strategy prioritizes ocean access and uses that can be monetized and that maximize profit it risks displacement and overlooking the impacts on the very fabric of communities.

Technological innovation alone will not solve the biodiversity and climate crisis, nor will it serve emptying rural, coastal communities. The consultative document has a heavy focus on technological innovation to open new space for exploiting 'untapped wealth' in the ocean and to push the boundaries of natural limits.

While innovative technology may allow us to further extend our reach into the depths and breadth of the ocean for some time, this eventually ends in a similar point – depletion and no space left. We must be careful of false solutions offered under the guise of innovation. It is fair to say that, by and large,

most no longer truly believe that human ingenuity will overcome planetary limitations. We cannot break free from the very nature we are part of. However, we have yet to fully rise to the challenge of transforming our consumption and production patterns sufficiently as the recent land-mark UK Treasury report [The Economic of Biodiversity: The Dasgupta Review](#) calls on us to do.

**Innovation is needed in our governance models and how and to whom fiscal support and finances flow** so new economic systems that are re-embedded in communities and that offer opportunities to those previously marginalized can take shape. **Innovation and strong support for basic science and research will be needed in this era of climate change and global supply chains** to transform sectors, build sustainable use patterns, and increase circularity in resource use.

**However, let us also recognize and invest in simple and valuable options based on the skill, wisdom, and diverse ways of knowing in front of us all along.**

Photo Credit: Simon Ryder-Burbidge

# RESILIENT FISHERIES

**The transformation of our fisheries for ecological, social, and economic sustainability, and to adapt in the face of climate change, can bring enormous job creation potential.**

To achieve this, Canada's Blue Economy Strategy should prioritize opportunities to rebuild abundance and biodiversity, along with policies and investments that support diverse economic benefits from fishing that keep the value in communities that are tied to the ocean. Fished species can be renewable resources and there is also potential value to be added to what we already harvest.

Over the last decades, we have created ever more efficient ways to extract marine species from our ocean at an industrial level. We have developed technology that allows us to fish in rough weather, high seas, and reach deeper waters. For a long time, Canada's policies and investment in fisheries development supported larger, more efficient, and more consolidated fleets to compete internationally and add to our export bottom lines. This created profitable ventures for some. It has also driven overcapitalization in many fisheries and overexploitation because the imperative for increasing profit required by corporations can mean incredible pressure to keep quotas up, far beyond the limits of species population growth. Over the long-term, we can now see the ecological costs of a business model that has led to serial depletion of stocks. Moreover, we can see the social tragedy and dislocation that has often resulted when stocks crash, rapid consolidation occurs, speculative investment in fishing access and processing increases, and local knowledge, skills, and connections are lost. We cannot solve these issues with more of the same push.



**In order to regain the most social, cultural, and economic value for fisheries of the future, fish populations must be rebuilt as an immediate priority.**

The draft strategy priorities would sweep aside traditional use, low impact fishing in favour of shiny new sectors and tech fixes. It is a mistake to ignore the value and opportunity to build on the deep knowledge, experience of independent harvesters, and the communities they live in. Conscious policy and fiscal design can increase inclusive opportunities in the fisheries, reap economic co-benefits from prioritizing local food as well as realizing market gains by investing in value adding.

Photo Credit: Simon Ryder-Burbidge

## Transforming how we fish and reorienting value building opportunities into our coastal communities:

- Protect & create more access & ownership opportunities for owner operator fishing on all coasts.
- Invest in apprenticeship programs for inshore fishing, low impact, high skill gear types for youth, immigrants, marginalized communities.
- Provide financial support for apprentices to take over licences with quota in fishing communities.
- Invest in community-based 'quota and license banking' programs to keep rural fishing access.
- Licences considered 'part time' should be maintained to allow the re-emergence of flexible, multi-livelihood coastal community economics.
- Identify & facilitate pathways to transition to zero-emission fishing vessels and gear improvements for fuel efficiency.
- Support rural jobs opportunities in Indigenous led, public sector, and community led fisheries and marine research, data collection, and monitoring.

# RESILIENT FISHERIES



## Fishery governance innovation:

- Recognize treaty rights and Indigenous management areas negotiated nation to nation.
- Open space for true co-management, community led management, indigenous led management opportunities.
- Prioritize quota access and allocation to low impact, less efficient, more labour intensive gear and fleets.
- Use disincentives and risk based policies (less quota, more costs for monitoring, gear restrictions, mitigation, etc) to discourage new investment in high impact, high volume gear.
- Fisheries management must have strict thresholds & timelines that are legally mandated to reduce political decision making and more quickly transition to healthy fish populations.
- The social, economic, and ecological objectives for fisheries management should be explicit objectives.
- Develop policies and fiscal support directly to harvesters and fish workers and community management co-ops who need to transition while fish stocks rebuild, to shift to small-scale operations, or to adapt to climate change impacts.

Photo Credit: Simon Ryder-Burbidge

# A NEW LEASE ON AQUACULTURE



**Low-impact and regenerative aquaculture, like small-scale seaweed and shellfish farming, can improve local food security, rehabilitate fish habitat, sequester blue carbon, and provide local ownership and employment opportunities.<sup>2</sup>**

It is critical for Canada's Blue Economy Strategy to recognize and differentiate between varied forms of aquaculture and appropriately assess the risks and potential benefits of each. In contrast to open net-pen salmon farming, alternatives like closed containment, herbivorous finfish aquaculture can alleviate pressure on the wild fish stocks targeted for carnivorous fish feed while still producing viable protein products. These outcomes can aid in Canada's post-pandemic recovery and help to meet international obligations on biodiversity and climate change.

**The future of aquaculture development in Canada must recognize the following foundational principles:**

- Marine protection and restoration;
- Local- and community-first benefit; and
- The separation of promotional and regulatory duties for governments.

To date, Canada has not invested sufficiently in publicly available, baseline research to make aquaculture a feasible proposition for small-scale start-ups in certain areas. Similarly, certain government loan structures that could be accessed by start-up aquaculture entrepreneurs are not oriented towards small-scale initiatives, instead better suited for large-scale developments.

These challenges exist in licence and leasing processes as well, where low-impact seaweed and shellfish proposals face the same bureaucratic barriers as industrial-sized and high-risk open net-pen aquaculture proposals. These systems could be amended to support and streamline regulations for small, low-risk projects, with graded incentive scales for localized entrepreneurs dedicated to enhancing local food security, creating local jobs, restoring marine habitat and sequestering blue carbon, among other goals.

There is an opportunity to build value through investing in the basic infrastructure required for community-based aquaculture start-ups. For example, there are very few nurseries in Canada that could supply seed for projects looking to grow sugar kelp and other algae species, or habitat restorative species like eelgrass and salt marsh, whereas federal funding routinely supports the development of fish hatcheries.

## **Transform and reorient value-building opportunities in aquaculture:**

- Invest in ecological and market research for shellfish, seaweed and herbivorous closed containment finfish aquaculture projects, including: (1) baseline ecosystem science and water quality testing to establish appropriate sites; (2) "future-proof" climate planning for long-term viability; and (3) localized and "pandemic-proof" markets for small-scale producers.

Photo Credit: Simon Ryder-Burbidge

# A NEW LEASE ON AQUACULTURE

## Transform and reorient value-building opportunities in aquaculture:



- Ease bureaucratic obligations for small-scale, low-impact aquaculture plus restructure financing to include: (1) loan and grant incentives for regenerative or locally-owned projects; (2) enhanced access to funding and startup resources; and (3) enhanced access to technical and commercial supports.

The great potential to advance these opportunities conflicts significantly with a draft strategy document that is focused on innovation in the open net-pen finfish aquaculture sector. With further investment in open net-pen technologies, not only are we automating away existing fish farm jobs, but we are also tethering the livelihoods of upstream workers to an industry with a very uncertain future. Salmon farming industry leaders have already acknowledged that [the future of fish farming is closed containment](#), affirmed by the surge of international capital flowing into land-based projects.<sup>3</sup> As of early 2021, developers in more than 20 countries have announced plans for upwards of one million metric tonnes of fully land-based production,<sup>4</sup> forecasted to account for a substantial proportion of the total farmed salmon market by 2030, and continuing to rise into the future.<sup>5</sup>

### **Now is not the time to further invest in or support the expansion of destructive aquaculture practices in our ocean.**

Moreover, a variety of significant challenges will increasingly hamper the sea-based fish farming and further erode the myth that it will feed the world, especially luxury seafood products like salmon.<sup>6</sup> Pest and disease, depletion of feed species, ecological risk and lack of social licence are rarely accounted for in optimistic projections of potential growth. Doubling-down on open net-pen technologies will ensure that Canada is left behind in the race for land-based finfish markets, delay the industry's inevitable transition towards closed containment, continue to risk marine ecosystems in the process, and divert resources from more viable, long-term businesses that keep value in our communities.

Photo Credit: Simon Ryder-Burbidge

## SHORE SIDE: TRANSFORMING SEAFOOD SUPPLY CHAINS

Canada's seafood industry is largely driven by high volume, export markets with increasing movement towards consolidation. The low prices offered on these large commodity markets create barriers for small to medium businesses and result in a lack of diversity within the seafood market.<sup>7</sup> The dangerous vulnerabilities in the globalized seafood supply chain were highlighted especially during the COVID-19 pandemic exposing the lack of resilience and food security within the industry.<sup>8</sup>

**Canada's Blue Economy Strategy provides an opportunity for the federal and provincial jurisdictions to work together to transform seafood market access and the industry's opportunities to compete by:**

- Providing financial support from the government should prioritise small and medium businesses as well as co-operative and community run options.
- Reworking health and safety regulations according to risk and size to ensure small co-operatives can access processing facilities.
- Developing enabling regulations to open up more opportunities for direct sales by harvesters and their families across all species caught.
- Investing in small to medium business to process, store, & sell through community based co-ops.
- Investing in small to medium value adding, high quality, low volume products and innovative use of fish 'waste' products.
- Supporting innovation in the supply chain access and pricing to keep more high-quality, sustainable products from owner-operator fishermen in our domestic consumer, restaurant, and wholesale markets

Canada's Blue Economy Strategy cannot be successful without traceability as a tool to assure the sustainability and social responsibility for domestic and imported seafood. Traceability underpins sustainable fisheries management by allowing governments and businesses to track seafood product information and data throughout the supply chain.



However, **Canada's current traceability regulations and industry practices are insufficient to safeguard our oceans, seafood industry and Canadian consumers.**

Innovative progress towards traceability has been slow amongst the seafood industry, especially for small-scale producers, due to challenges including gaining full chain cooperation, systems lacking standardization, and the costs associated with the implementation.<sup>9</sup> Further, the reliance on market forces and sustainability levers alone (such as eco-certifications) has proven insufficient to make the larger-scale improvement to fisheries sustainability overall.<sup>10</sup> Thus, stringent government regulations that set a stronger standard and level playing field for the industry are a more equitable and viable solution.

Photo Credit: Nick Hawkins

## SHORE SIDE: TRANSFORMING SEAFOOD SUPPLY CHAINS

### Improved seafood traceability would support the Blue Economy Strategy by:

- Allowing businesses to manage risk efficiently. Based on new research during the pandemic, businesses with better traceability could pivot more quickly and better predict risks.<sup>11</sup>
- Improving brand reputation for the industry to gain and maintain market access and consumer trust. This benefit is evident in countries such as Iceland that have demonstrated the benefits of stringent transparency and traceability, which have improved the sustainability and value of the seafood they produce and sell.<sup>12</sup>
- Allowing businesses to be more proactive, instead of reactive to the market or regulations both domestically and internationally, by verifying their sourcing or product attributes.<sup>13</sup>
- Improving ocean health and yielding economic value by ensuring proper data collection and retention of information attached to a product. Proper data collection and enforcement is critical for reducing IUU fishing, mislabelling and strengthening sustainable fisheries management.<sup>14</sup>
- Creating transparency and a greater connection between seafood producers and consumers. Increased transparency and connection can empower coastal communities and play a role in improving food security by providing better access to local seafood for Canadians.<sup>15</sup>



### To use traceability for maximum impact on the sustainability, responsibility and long-term viability of Canada's seafood industry, we recommend:

- The Canadian government develops an electronic, interoperable and full-chain traceability program for all domestically produced and imported seafood in Canada. This system must track and verify data including the species, the location of harvest and gear used, and be available to supply chain actors and consumers.
- In consultation with stakeholders, the Canadian government should design a traceability policy that fits within its fisheries management and health and safety regulations, as well as aligns with international regulatory requirements.
- Consider introducing sustainability and human rights data collection within traceability requirements for imports to increase the domestic competitiveness of Canadian seafood and to drive improvements in globally traded fisheries.
- Invest in traceability education initiatives for industry marketing (ie. product storytelling or promoting buying Canadian).

## MINIMIZING HARMFUL, EXTRACTIVE OFFSHORE INDUSTRIES

**The expansion of harmful, extractive industries like oil and gas and deep-sea mining are incompatible with a regenerative and transformative Blue Economy Strategy. The risks to our climate and biodiversity from these industries are too great for them to be extended a lifeline through this initiative.**

In particular, in a report released in May 2021, the International Energy Agency (IEA) calls for no new investment in fossil fuel supply.<sup>16</sup> They note that it is not needed on the pathway to zero emissions and that a complete transformation of how we produce, consume and transport energy is required.



### **A sustainable, future-oriented Blue Economy Strategy is one that:**

- Phases out offshore oil and gas development by 2030 and immediately stops public money support to fossil fuel companies;
- Advances renewable energy options with direct support to the sector rather than funnelling incentives for tech transfer through existing fossil fuel companies;
- Develops proactive transition policies with a whole-of-government approach to maximize the support to workers as we shift to a clean economy;
- Focuses on supporting jobs and opportunities directly for Indigenous communities, women, immigrants and other underrepresented communities in marine renewable energy sector development;
- Immediately restricts offshore oil and gas development in all marine refuges and marine protected areas;
- Bans deep-sea mining in Canadian waters and join calls for a high seas moratorium;
- Invests in risk-based assessment, planning and monitoring processes for the development of marine renewable energy in consultation with Indigenous communities, independent researchers and environmental organizations.

## A FOUNDATION IN HIGH QUALITY PROTECTION

A regenerative/transformational Blue Economy Strategy must be built on a strong foundation of protected areas that effectively conserve biodiversity and contribute to the mitigation of climate change. In addition to being an insurance policy when other aspects of marine resource management fail, marine protected areas create opportunities to monitor, study and better understand the dynamics of ecosystems and how these will shift in a changing climate.

**Simply put, strong protected areas are fundamental to the success of any sustainable ocean economy and addressing the dual crises of biodiversity loss and climate change.**

Canada has made significant progress on marine protected areas since 2015. This includes exceeding the domestic target of 10% protection by 2020 and setting ambitious new area-based targets for 2025 and 2030. The 2019 announcement of protection standards for federal MPAs (e.g. Oceans Act MPAs) was also an important achievement. Internationally, Canada has shown welcome leadership by, for example, participating in the High Level Panel for a Sustainable Ocean Economy and joining the Global Ocean Alliance.



**At the same time, considerable work remains to be done if we are to create an effective baseline of protection upon which a sustainable ocean economy can be built. A transformational Blue Economy Strategy is one that:**

- Recognizes and supports Indigenous leadership in ocean spatial protection;
- Achieves 25% protection of Canada's ocean estate by 2025 and 30% by 2030;
- Enacts strong standards of protection for all areas counting toward these targets;
- Ensures that harmful industrial activities like oil and gas are prohibited from marine refuges, which count for roughly half of Canada's area-based protections;
- Prioritizes meaningful community engagement and creates opportunities for local employment in management, monitoring and enforcement;
- Encourages partnerships across sectors including opportunities for collaborative research;
- Progresses Canada toward a network of connected protected areas that conserve unique, sensitive and representative habitats while providing some level of protection for wide-ranging marine species (e.g large pelagics).

Photo Credit: Nick Hawkins



# QUESTIONS TO ANSWER AS CANADA SHAPES THE BLUE ECONOMY STRATEGY:

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1. Who will benefit from Canada's strategy and how will the framework ensure the distributed flow of these benefits?
2. How does the focus on innovation and technological development in the draft strategy actually address the major issues facing coastal communities today?
3. How will decision-makers ensure that the interests of influential, corporate actors do not outweigh the interests of coastal communities in shaping the strategy?
4. How will this strategy be used in the context of marine spatial planning processes?
5. How were the calculations done to arrive at the 'blue wealth' and sectoral growth potentials listed in the strategy document? Does this take into account the inevitable trade offs, competition for access and space, and the ecological and social costs that could be the result?
6. How will objectives be prioritized when they come into conflict?
7. How will the strategy to be a whole of government approach, so sustainable economic and ecological gains made on the one hand will not be undermined by what the other hand is doing?

***Ecology Action Centre is celebrating 50 years of action! EAC's marine program works locally, nationally, and internationally towards healthy oceans and thriving coastal communities.***

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# ENDNOTES

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