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BLUE INITIATIVE



Oceanographic
Institute
Prince Albert I of Monaco Foundation

11th Monaco Blue Initiative – Digital Edition

Workshop # 3 – 24 June 2020

How to reconcile the Blue Economy with Sustainable Ocean Management

Summary of the discussions

The 11th edition of the Monaco Blue Initiative, planned for March 2020 in Monaco, had to be cancelled due to the Covid-19 outbreak. In the spirit of resilience and mobilization, His Serene Highness Prince Albert II of Monaco and the Steering Committee of the Monaco Blue Initiative wished to keep the momentum and offer a space for debating and making progress on the themes of the [11th MBI through three online workshops](#). Below is the preliminary summary of the third workshop.

Moderator: Nina Jensen, CEO REV Ocean.

Panelists: Carl Folke, Director, Beijer Institute and Stockholm Resilience Centre; Wassim Daoud, Head Corporate Social Responsibility and Sustainability, Ponant; Hugo Tagholm, Chief Executive, Surfers Against Sewage; Maren Hjorth Bauer, Co-founder Katapult Ocean; Rupert Howes, Chief Executive Officer, Marine Stewardship Council.

This 3rd session of the first digital edition of the Monaco Blue Initiative began with a keynote speech by Jens Frølich Holte, State Secretary of Norway's Ministry of Foreign Affairs. Panelists then shared experiences of their work to reconcile development of the Blue Economy with long-term sustainability and ocean health.

The World Bank defines the Blue Economy as the sustainable use of ocean resources for economic growth, improved livelihoods and jobs while preserving the health of ocean ecosystems. Fields involved include tourism, transport, energy, fishing and aquaculture.

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Jens Frølich Holte, State Secretary, Norwegian Ministry of Foreign Affairs, began by noting that more than 1 billion people rely on seafood as their primary source of animal protein, and 30 million people derive their employment from ocean-based industries. Fish is one of the world's most traded foods; 90 percent of world trade uses sea routes, and most Small Island Developing States rely on coastal tourism for over 20 percent of their GDP.

Industries rely on the critical functions and ecosystem services oceans provide. Tourism can't survive on beaches littered with plastic and waters full of bleached coral reefs; no fleet can continue fishing if stocks collapse due to overfishing and climate change. Therefore we cannot afford not to reconcile the Blue Economy with sustainable ocean management, he said.

The Norway-initiated High-Level Panel for a Sustainable Ocean Economy brings together leaders of 14 countries to connect ocean health with ocean wealth. Research it commissioned shows climate-based ocean action could deliver up to one fifth of the emissions cuts needed to meet the Paris targets. Another report shows the ocean has the potential to produce far more seafood than it does today.

The costs of inaction are daunting: in 2012 the UNDP estimated at \$200 billion per year the cumulative economic impact of poor ocean management. Action requires hard economic facts and good models for regulating competing interests. Marine spatial planning or sector-based management are just two examples of integrated ocean management tools. All must consider multiple uses and pressures simultaneously, and reconcile them with the sustainability of societies and marine ecosystems. Transparency and inclusiveness are key to ensuring those affected have a say in management.

Norway has used knowledge-based ocean management plans for close to 20 years. Today, over 30 percent of its private-sector value creation and two-thirds of export value stem from ocean industries. On the international stage, it launched Oceans for Development to cooperate with partner countries on building a sustainable, inclusive ocean economy.

The connection between effective protection, sustainable production and equitable prosperity in the ocean sphere must be made central at all upcoming international conventions – the Our Ocean Conference, the UN Ocean Conference, the biodiversity conference, COP 26 and the UN Decade on Ocean Science, Mr Frølich Holte concluded.

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Moderator **Nina Jensen** opened the panel with a reminder: without the ocean, life on Earth would not exist. The ocean provides oxygen, food, inspiration, jobs, climate regulation and endless opportunities for economic development if we protect, restore and manage it well for the benefit of all.

The Stockholm Resilience Centre's **Carl Folke** has some 300 publications to his name on the interplay among humans, the economy and ecology. He helped create the Seafood Business for Ocean Stewardship (SeaBOS) Initiative, an active partnership between scientists and global seafood companies working together to move the industry towards sustainability.

Inspired by the ecological concept of keystone species, Folke's team identified "keystone actors" - the thirteen largest transnational fishing and aquaculture companies whose size and vertical integration give them disproportionate power over marine food webs worldwide. The idea was to find leverage points to shift current harmful practices towards sustainable ones: with a global population soon to reach 9 to 10 billion, we can't do the same thing we've been doing since the Second World War, he said.

These thirteen companies sell 15 percent of the global catch and up to 40 percent of the most valuable species, represent 30 percent of salmon aquaculture, and dominate shrimp and feed production. This gives them huge influence over policy and practice, and thus, potentially, transformation.

Folke's group of scientists initiated dialogue with ten of these keystone actors, holding 270 meetings since 2015. There has been a real change in mindsets, he notes. Companies see themselves less as producers and more as stewards seeking ways to achieve sustainability, and are moving from mere compliance to the conviction that healthy oceans are the precondition for good seafood production.

The SeaBOS Initiative has brought the sustainability concept to countries where it hadn't existed. Companies from Japan, Thailand and South Korea are now actively working on sustainability reporting and other efforts.

The partnership is organised into task forces targeting the issues of Illegal, Unreported and Unregulated Fishing (IUU); forced labour; traceability; transparency; working with governments to improve regulations; ocean plastics; climate resilience; and microbial resistance and antibiotic use.

If SeaBOS succeeds with these 10 companies, it will hopefully create cascading effects throughout the whole seafood sector to shift to sustainable use. It is already partnering with other organisations and is being studied as a model that could be replicated to advance ocean stewardship in other areas of the Blue Economy, Folke concluded.

One such area is ocean tourism, represented in this workshop by **Wassim Daoud** of Ponant, the only French-owned cruise line, which specialises in luxury sea travel and sustainable tourism aboard smaller-scale ships.

Tourism has a key role to play in the Blue Economy: it is one of the world's largest industries, contributing trillions of euros to the global economy and supporting the livelihoods of an estimated one in ten people worldwide, Daoud noted. Coastal and marine tourism represents a significant share, supporting more than 6 million jobs—second only to industrial fishing - and is projected to become the largest value-adding segment of the ocean economy, with a 25 percent share by 2030.

Blue Economy development can be reconciled with conservation and human rights to create a sustainable blue value chain, and now is the time to do it, Mr Daoud affirmed.

Ponant's sustainability strategy models this, combining environmental protection with social and cultural preservation and economic development. Its itineraries are designed in consultation with local populations, taking into account impacts on nature as well as social, cultural and economic aspects.

Ponant is very attentive to protection of ecosystems especially in sensitive areas such as the Polar regions, adapting its itineraries depending on ice movements to preserve these areas. Its ships are limited to 200 passengers and use the cleanest available fuel and catalytic converters, while all water used onboard is treated and recycled, waste is sorted for recycling and treatment and 70 percent of fruits and vegetables served onboard are supplied locally.

The company also supports several conservation projects around the world, offsets 150 percent of its carbon emissions and collaborates with suppliers and startups to develop new green technologies.

The COVID-19 crisis offers a good opportunity to think about tourism's future because we're seeing a total change in customers' mindsets - they now view sustainability as mandatory, Mr Daoud noted. While responding to new health concerns with modified sanitary measures, Ponant is giving more thought to its environmental impacts, designing new cruises in French waters to be closer to its customers without requiring extra travel.

The very positive feedback Ponant has received since the recent launch of these new cruises shows we have to be innovative, think differently and include sustainability in our conception of tourism, he concluded.

Hugo Tagholm of UK-based Surfers Against Sewage agrees that tourism presents a key opportunity to build a sustainable Blue Economy. Sustainable ocean tourism can mobilise a worldwide community of

ocean advocates for restoration and conservation of ocean ecosystems but also the diverse communities that surround them, because people protect what they love.

Tourists are marine indicator species themselves, acutely aware of ocean health and witness to damage, pollution and decline where it happens. SAS itself mobilizes over 100,000 ocean volunteers annually through beach cleanups and its Plastic Free Community network. Tourists and consumers will not just denounce harm but will also reward ocean-positive business and innovation.

A sustainable Blue Economy also depends on diverse coastal communities, which attract global audiences. Environmental justice is key, and must be applied to protect ocean communities from the degradation and inequity caused by current dominant economic forces.

Coastal people must be the defenders and primary beneficiaries of a recovering and flourishing ocean, and be highly involved in decision-making, monitoring and restoring its health. Creating local ocean councils could be one way to balance voices around the table and give local communities greater influence over planning decisions.

We also might reconsider our approach to planning and Environmental Impact Assessments, which currently license incremental damage of ecosystems, Tagholm suggests. Instead we should introduce local Environmental Recovery Assessments, which demonstrate the natural capital and social gains that any activity delivers locally and globally; no one wants to visit an ocean filled with heavy industry, choking on plastic or devoid of life.

Local ocean tourism can also offer marine restoration volunteering opportunities. By creating a new global ocean network, it can be the ultimate advertising campaign to win hearts and minds to highly protect 30 percent of our oceans by 2030 and restore blue carbon habitats worldwide, and we must invest in it.

The next panelist, **Maren Hjorth Bauer**, specialises in Sustainable Blue Economy investment. Her Oslo-based Katapult Ocean is a venture capital and private equity firm investing in impact-driven ocean tech startups. Its current portfolio includes 22 companies from 14 countries.

One is the UK's ARC Marine, which developed Reef Cubes to offset negative impacts caused by offshore construction by industries such as wind power, oil and gas and offshore aquaculture. These plastic-free building blocks protect offshore structures while creating reef ecosystems to serve as marine-life incubators.

Another is Remora Technologies of Costa Rica, providing traceability tools for small-scale artisanal fishers who can't afford larger certification schemes. These include tools to demonstrate fish was caught outside Marine Protected Areas, "smart scales", and scanners that identify allowable species and size. By enabling fishers to prove their fish was sustainably caught, these tools increase the value of their catch while encouraging best practices.

Closer to home in Norway, Brim Explorer offers wildlife and cultural excursions in the Arctic Sea on silent, hybrid-electric ships. It uses underwater drones and hydrophones to allow tourists to experience life below the surface without causing harm; the aim is to turn passengers into Arctic environmental advocates.

Bauer noted a definite increase in investor appetite for companies operating in the ocean space; according to a January, 2020 Credit Suisse poll of 350 investors, more than 90 percent expressed interest in the Blue Economy. Katapult is seeing more and more European investors and family offices adding blue to their fund strategy, as well as a generational shift, with younger investors more interested in new technology, impact and environmental investment.

The COVID-19 crisis has awakened awareness of the need to change: Ms Bauer's discussions with investors in recent months have shown they feel the need to refocus and diversify away from old dirty businesses, while ESG funds have been more resilient during this time. We see this is the way forward,

and that the COVID crisis is just a taste of what's to come if we don't address the really big challenges, she said.

The Marine Stewardship Council's CEO **Rupert Howes** then spoke of the role certification schemes play in the Blue Economy. The MSC creates incentives to bring fisheries into a scientific assessment process and improvements in practices to earn its sustainability label. Today 16 percent of the global catch is certified sustainable under the MSC.

If we don't fix fishing, we cannot have a sustainable Blue Economy, Howes said. Fish is a low-carbon, potentially renewable source of protein but the statistics show the trends are still moving in the wrong direction.

Approximately 34 percent of stocks are now being fished at unsustainable levels - a threefold increase since 1970. With the global population set to grow from 7 billion to 10 billion, we must manage what we've got sustainably. This is a matter not just of food security but also economic health: some 5 million fishing vessels employ 50 million people directly and ten times that indirectly.

The MSC has led 400 fisheries into independent scientific assessments of each fishery's stock health, environmental impacts and management quality. Fisheries that meet the standard with full traceability can use the MSC label. This empowers consumers to make informed choices, rewards sustainable fisheries and creates the incentive for others to step up.

One example is South African hake. Assessment of a controversial fishery revealed it was overfishing one of two hake stocks and killing 10,000 seabirds each year. Using MSC as a tool, it worked with WWF South Africa, improved relations with the regulator and built relations with the commercial sector. Its stocks are now managed sustainably, and seabird bycatch has been reduced by 90 percent. The fishery also won new markets, helping to protect 12,000 much-needed, mainly female processing jobs on land.

While the last 20 years have shown MSC works, it can't work on its own - governments need to create an enabling environment. The SEABOS initiative is a positive example, where leading companies have committed to work with governments to help create the necessary policy reforms. The world is at a crossroads: COVID-19 isn't going to disappear anytime soon, but it has created a useful sense of urgency and the chance for a great reset; this is a once-in-a-century opportunity, Mr Howes said.

Carl Folke noted that climate change adds further urgency, as it challenges the stability of the entire planet. It's not just a matter of tweaking a bit at the margins of how the economy works now; it's about shifting to the concept of stewardship of ecosystems. Tourism, for example, can be an incentive for local communities to be good stewards and to earn dignity and respect for taking care of their ecosystems instead of just being links in an production efficiency chain.

Humans are the dominant force on the planet now, creating completely new environments for all organisms. This requires mobilising information technology to monitor and understand these changes so that we can act on them.

We're starting to see a shift, Mr Folke asserted: even truck companies like Sweden's Scania are changing their whole approach from linear supply chains to what they call their own ecosystems, building more dynamic connections and capacity to live with changing circumstances. Initiatives like SeaBOS can assist in this transformation.

Noting that the panel had touched on finance, science, market-based solutions and the role of local communities, but little on government and policy-making, Moderator Nina Jensen asked panelists for their recommendations for decision-makers to boost development of a sustainable Blue Economy.

Hugo Tagholm urged mobilising public opinion behind conservation initiatives, as decision-makers are always influenced by their constituents. He mentioned a review led by former UK Environment and Fisheries Minister Richard Benyon which recommends stronger protection in parts of the UK's Marine

Protected Area network, as current mixed-use areas are failing to provide sufficient protection and full recovery of the marine environment.

This is the kind of radical thinking we need; if we get the public behind these initiatives then we can highly protect large swathes of the ocean, enabling the sustainable Blue Economy elsewhere through spillover effects, Tagholm said. The COVID-19 crisis has shown we can pivot on a dime and that big business and government can make decisions very quickly - that's the speed we need for ocean recovery.

Regarding MPAs and tourism, Wassim Daoud said Ponant has noted a lack of regulations in polar and island regions, and suggested responsible businesses could play a role by working with local authorities to implement rules.

In the Indian Ocean, Ponant proposed that local authorities perform an environmental impact assessment before the company designed its new cruise itineraries, to ensure they would not harm the local ecosystem and biodiversity. The World Bank and the European Bank have a model for environmental impact assessments for land-based but not for sea tourism - this should be developed, Mr Daoud said.

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Q&A

The panel was then opened to questions from attendees. **Michèle Barbier**, scientist and founder of the Institute for Science and Ethics, asked about the concept of Engaged Tourism.

Mr Daoud responded that Ponant invites many scientists onboard its ships to conduct research and asks them to share it with passengers and encourage participation. Experiments have included an Antarctic wave study whose results were presented daily, or a submarine sonic measurement that allowed passengers to listen to the sea.

These interactions have become so popular the company created the Ponant foundation in 2019 to foster them. The cruise line also partners with conservation actors working in big forests around the world to allow passengers to participate in reforestation and witness its progress, he said.

Hugo Tagholm's SAS organises massive beach clean-ups to tackle plastic waste. He noted the rapid development of projects involving tourists in ecosystem restoration in the ocean sphere, such as SeaTrees, where tourists and communities replant and restore mangroves, kelp beds, coral reefs and seagrass meadows to foster carbon sequestration and habitats for spawning and nurseries.

Conservation International's **Pablo Obregon** then asked panelists for recommendations as to how to address environmental sustainability while addressing social responsibility and how to prioritise, especially in cases of limited funding, information and political and enterprise will.

Regarding funding, spending on COVID-19 shows that when we need it, the financial resources are there, said MSC's Rupert Howe. That money must be spent wisely because we're borrowing from our children, and probably their children, given current levels of debt. All investment should be guided by sustainability principles; decarbonisation is a priority, because if we don't fix carbon we don't fix oceans, and vice versa.

This takes political leadership, commitment and partnerships. Sustainable Development Goals and Agenda 2030 are the road map, with 193 nations signed up; now it's time to deliver. For twenty years now, the WTO has been discussing eliminating harmful subsidies to fishing.

Market and consumer power has led tuna fisheries to double their engagement in the MSC program, Mr Howe noted, as has involvement in science-business partnership SeaBOS. Korea's Dongwon

Industries, one of SeaBOS's "keystone actors", has entered all its tuna fisheries into a third-party assessment and some are now beginning to achieve certification.

Social issues in fisheries such as slave and bonded labour and killings of observers must also be addressed. This can be tackled through the supply chain and proper enforcement of monitoring, control and surveillance requirements at the Regional Fisheries Management Organisation level, he said.

Marine ecologist **Marea Hatzioles** suggested developing a sustainable Blue Economy Index to help guide investors towards socially and environmentally sustainable blue business; a similar concept already exists in the form of Green Growth portfolios.

Katapult's Maren Bauer supported this, while noting it requires agreeing on how to measure activities' impact on the marine environment. All the companies in Katapult's portfolio report on financials but also on impact; it's necessary to define common ways of doing that.

Filip Claeys, Belgian chef and Founder of NorthSeaChefs asked about the role of restaurants and chefs in ocean protection.

Carl Folke's institute is developing an initiative called gastronomic landscapes with Swedish chefs, using their growing knowledge about new ingredients and species and how to use them sustainably but this is mostly terrestrial, Mr Folke said. It could easily be applied to coastal areas in an integrated approach to support stewardship of whole ecosystems that produce food.

Rupert Howe noted chefs have a pivotal role and a moral and ethical duty in educating customers and connecting them to the sea by demanding sustainable seafood. This also applies to individual consumers: buying sustainable fish sends signals back down the supply chain to pressure actors to operate sustainably, and rewards those fishers doing the right thing.

François Houllier of IFREMER asked about the kinds of new scientific knowledge, data, and expertise needed to reconcile Blue Economy activities with sustainability.

Nina Jensen suggested much of the abundant data available isn't being put to good use, so first it is necessary to ensure the science we already have is being used by and made more readily available to decision makers, and to those acting in ways that run counter to good science. Efforts to increase ocean knowledge must also be stepped up, particularly with regard to human impact and that of climate change and ocean acidification over the long term. This will be critical to determining how to manage fisheries in the future.

Rupert Howe warned of the risk of governments using the lack of data to delay action on climate change. He referred to a recent IPCC report on oceans and the cryosphere stating that a 1.5-degree warming will destroy 90 percent of the oceans' coral reefs. A 2-degree rise would wipe them out altogether, with profound implications for food security and local livelihoods. As the warming trend is towards 3 degrees and beyond, decisions must be made now based on the considerable existing science.

Carl Folke agreed, and called for science and business to collaboratively find solutions, as the world will be much more of a moving target than what we've been spoiled with during our lifetimes. This requires much greater adaptability in the face of changing conditions, especially climate change and ocean acidification.

Nina Jensen suggested replicating successful initiatives like SEABOS for other industries, and that existing knowledge be translated into concrete solutions - often decision-makers and business leaders don't know how to act on the science. We need to be much clearer and work with tech startups, industry and funders to make sure these solutions are developed. As COVID-19 has shown, the money is there and investing in ocean sustainability is critical, she said.

Andrei Polejack of Brazil asked about the issue of intellectual property and the transfer of marine technology in light of the Global South's lack of technological and human capacity.

This is very complex and especially important in relation to inequality, which was escalating even before the COVID crisis, Carl Folke said. It boils down to governance systems and the lack thereof. There have been a lot of attempts to enhance that capacity; ideally, there would be some type of transparent new forum or international organization that would guarantee more equitable sharing. Existing tools are not sufficient and it is very important to highlight this challenge.

Maren Bauer's Katapult has looked at over 1,500 impact-driven ocean startups from over 80 countries around the world. She noted the rapid rise of promising tech startups and a very high level of engagement and creativity in the developing world, where people may feel these issues more viscerally and have a different, stronger motivation to build solutions.

In conclusion, Nina Jensen noted the panel's many concrete examples of the potential for reconciling sustainable Blue Economic activity with ocean health and that of local communities, from the SeaBOS initiative to sustainable and engaged tourism, ocean tech investment, and seafood certification.

The ingredients moving us forward are speed, scale, science and stewardship, she said. Most importantly the ocean needs major investments to meet the challenges we're facing and the money is available if we just decide this is important enough, which it definitely is.

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Olivier Wenden, Vice-president of the Prince Albert II of Monaco Foundation and **Robert Calcagno**, CEO of the Oceanographic Institute, then offered some closing remarks for this digital edition of the Monaco Blue Initiative.

Mr Wenden applauded that taking MBI online this year had allowed it to continue uninterrupted the platform for dialogue it launched ten years ago. He noted that these online sessions had produced important recommendations and expressed hope these would be taken into account in the high-level ocean gatherings due to take place in the coming months.

The Covid-19 crisis seems intimately linked to anthropogenic degradation of the environment, yet in many countries, environmental protection is not the priority in a worrying sanitary, economic and social context. This makes it more important than ever to ensure Marine Protected Areas and other effective conservation measures are placed at the centre of international discussions, he said.

Our collective goal should be the protection of 30 percent of land and ocean by 2030, with a substantial part under strict protection, as highlighted by Prince Albert and by many participants during this MBI. But as Workshop 2 stressed, ultimately what we need is 100 percent sustainable use of the oceans.

Robert Calcagno noted that there is still a long way to go to make the Blue Economy truly sustainable; the "Sustainability Science" concept cofounded 30 years ago by Workshop 3 speaker Carl Folke will be essential. Scientists must be able to work holistically and across sectors to consolidate robust scientific analysis and advice which will be palatable to entrepreneurs and policy makers.

He highlighted Workshop 3's concrete examples of economic actors' commitment and efforts towards sustainability and ocean protection, conveying a clear message of engagement on the part of Monaco to support such positive initiatives, and to help make them known.

In this spirit, the 12th edition of the Monaco Blue Initiative will be held on 21st and 22nd March 2021 on the topic of the Blue Economy. Its organisers welcome help identifying champions of the sustainable Blue Economy who might be able to share their success stories, difficulties, and lessons learned.

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