

## Monaco Blue Initiative – 4<sup>th</sup> Edition 23-24 June 2013

### Introduction

With this 4th edition the Monaco Blue Initiative reached cruising speed as an effective platform for discussion among diverse marine stakeholders. The main themes – the status of large marine predators, namely bluefin tuna and sharks, and the role of Marine Protected Areas in ensuring sustainable ocean ecosystem management – built on those of previous editions for, as H.S.H. Prince Albert II noted in his keynote speech, one of MBI's strengths and founding principles was continuity.

“It means that our work requires time, that the dialogue is never finished, and that these issues need time to mature,” he said. “I believe that the positive developments with regard to a species like the bluefin tuna, which has represented a substantial part of our work since 2010, are there to prove the merits of our determination,” he added.

**Robert Calcagno**, CEO of Monaco's Oceanographic Institute, echoed this in his introductory remarks. Indeed, while humankind's “careless overexploitation of the oceans” has brought a number of large predator species to the brink of extinction, there is some good news: the improvement of the status of bluefin tuna and the expansion of Marine Protected Areas, he said.

**Bernard Fautrier**, Vice President and CEO of the Prince Albert II of Monaco Foundation, underlined MBI's uniqueness as a think tank bringing together economic, political, scientific and environmental professionals, affirming that “Together we're stronger in spite of our differences, and perhaps because of them.”

### Session One: Current Status of Large Predators: Protection and Economic Opportunities

The session began with an inspiring speech by the President of the Republic of Palau, Tommy E. Remengesau. Ten years ago the small island republic took bold steps to protect apex predators in its waters, banning commercial shark fishing and becoming the first country in the world to outlaw shark finning. It is now pursuing the goal of creating the world's largest marine sanctuary by closing its entire Exclusive Economic Zone to foreign commercial fishing, Mr. Remengesau explained.

The country is already reaping benefits, in part by becoming the go-to destination for divers who want to see sharks. The establishment of the EEZ-wide MPA, largely to protect tuna, for which the islands are a spawning ground, would come with a price, and Palau is seeking ways to offset the economic losses from ending fishing in the area, President Remengesau said.

**Sergi Tudela**, Head of Fisheries for the Mediterranean at WWF, outlined the recent history of the bluefin tuna. While the species has been overfished in the Mediterranean since the 1970s, the big shift came in 1996 with the introduction of tuna farming, in which captured fish are placed in pens and fattened to the standards of the Japanese market. This new threat quickly increased pressure on wild stocks, which led the International Commission for the Conservation of Atlantic Tunas (ICCAT) to adopt a recovery plan for the species in 2006. The plan wasn't ideal – the quotas were twice what scientists advocated as sustainable – but it banned the capture of juveniles and shortened the season. Since then, the plan has been improved, largely thanks to Monaco, Mr. Tudela said.

In 2010 ICCAT set quotas at scientific levels of sustainability, introduced traceability and inverted the season management logic, from a one-month closure to an 11-month closure. The total catch has been reduced by approximately half in recent times, he said, and according to ICCAT's latest diagnosis, the fishery is recovering. “We have clearly averted what seemed to be imminent collapse. This is good



news,” Mr. Tudela affirmed, while noting that the speed and magnitude of the recovery was unknown because of inadequate data.

He cautioned against crying success prematurely. “The stock is in recovery mode. We need to keep up the pressure until we reach the maximum sustainable yield,” he warned. But he shared his satisfaction when before the ICCAT meeting, French and Italian fishermen said they didn’t want to increase quotas, as they had realized the value of catching less: prices were higher, and they were earning more. “In ten years of work, this was the most rewarding moment,” Mr. Tudela said.

**Dominique Leglu**, Editor-in-Chief of French monthly **Science et Avenir**, highlighted the media’s struggle to obtain reliable figures regarding the status of endangered species, with “different actors playing different games.” “If we want to convince our readership that these issues are important we need good figures,” she said. There is also the question of responsibility: “For bluefin tuna stocks, the news seems to be good. But we have to think about the effect of such an article.”

Ms. Leglu noted that alongside quotas and other regulatory measures, technology now plays an important role in helping tuna stocks recover. Each authorized French fishing boat now has a sealed Argos beacon indicating speed and direction, monitored by a satellite center. The ships have to declare their delivery point, which is verified, along with fish length and weight. This strict surveillance also ensures they will not tolerate cheating by other countries’ ships: some 13 illegal Chinese ships were signaled in May of last year, she said.

Global consumers have a role to play, but they need to be informed. Of the 100 million sharks killed each year, almost 75% are killed for their fins alone, mostly for export to China, but the Chinese public is largely unaware of the practice, Ms. Leglu noted.

**Charles Clover**, Chairman of the UK’s Blue Marine Foundation, suggested turning the conservation paradigm on its head and applying a financial logic to sustainability. Look at it as Bluefin, Inc., he proposed.

“If the bluefin tuna industry was a business, it would be congratulating itself, but also writing a business plan for the future,” he said. Bluefin tuna is so valuable that overfishing is practically inevitable, so why not harness the extraordinary market value of bluefin tuna to help save it, he asked. This would mean getting private finance to invest in the future value of restored fisheries, enabling authorities to borrow against the future value of restored spawning stock to fund conservation measures. The value of stocks could treble in 15 years, he said, from the current €29 million to some €89 million annually, if current fishing levels were reduced by 25%.

Measures would combine high-tech monitoring with management tools such as buying out 25% of purse seiner capacity and establishing “fish banks,” which could be Marine Protected Areas, he suggested. While all this would cost a lot initially – some €65.8 million over a 15-year period – it would lead to a €60 million annual increase in value thereafter, Mr. Clover claimed. While he recognized that such a scheme would require a great deal of political will, he said using the profit incentive was worth a try, since “until now, we have offered fishermen nothing but Puritanism and restraint.”

**Giuseppe Notarbartolo Di Sciara**, President of Italy’s **Thetys Research Institute**, spoke about the monk seal, “the poster child of human abuse of the Mediterranean.” Once widely distributed throughout the area, it has been critically endangered for 16 years now, he said, due to a combination of deliberate killings, habitat loss and bycatch, among other causes.

Measures to protect the species have been a persistent failure, with no implementation of commitments, a lack of Mediterranean-wide coordination and continuity and insufficient attention to the human aspect of the problem, he affirmed.



Mr. Notarbartolo di Sciara has hopes for a plan to implement a participatory, ecosystem-based management scheme around the Greek island of Gyaros in the Cyclades, the monk seal's main reproduction zone in the Mediterranean. The key will be "getting fishermen to participate in protecting marine biodiversity while protecting their livelihoods," he said.

**Bruno Genty**, President of **France Nature Environnement**, reminded the gathering of the fundamental role of apex predators as indicators of ocean quality. For sharks, the health of coastal ecosystems, which the species used as nurseries, is crucial. And that health depends on practices on land, he noted, calling for the integration of coastal and high seas governance. All coastal communities should be required to include ocean conservation in their planning strategy, whether in terms of waste disposal, water supply or building issues, he suggested.

Strengthening scientific knowledge is also a priority: Mr. Genty supported creating an international ocean science group similar to the Intergovernmental Panel on Climate Change, or IPCC, which reviews and assesses the most recent scientific, technical and socio-economic information regarding climate change.

Bringing the discussion back to sharks, Robert Calcagno pointed out that unlike tuna, sharks have a very bad image. "We all remember 'Jaws.' People don't understand why sharks disappearing is a bad thing," he said. Statistically, sharks are not a particularly dangerous animal, he noted – they only kill about 10 people a year, as compared to 3,000 deaths from crocodile attacks. The Monaco Oceanographic Museum's current interactive exhibit and a new book aim to change popular perception of sharks and garner support for their protection, he explained.

Better scientific data could be gathered using new technologies for monitoring sharks, such as electronic tags, but sharing the sea with sharks also requires humility, Mr. Calcagno suggested. "It is illusory to think we can control and explain them. This is part of respecting the marine wilderness."

**Sandra Bessudo** directs Colombia's Presidential Agency for International Cooperation. As founder of the Malpelo Foundation for sharks, she spearheaded creation of the Malpelo Fauna and Flora Sanctuary 500 km off the coast of Colombia, which includes the largest no-fishing zone in the Eastern Tropical Pacific and was named a UNESCO World Heritage Site in 2006. Ms. Bessudo said public-private partnership and an exceptional degree of regional cooperation were crucial to protecting this MPA. One example is a bi-national committee between Colombia and Costa Rica to prevent illegal fishing, she said.

**Silvia Earle** declared that tuna should be seen as a unique animal, critical to the health and integrity of the ocean, instead of as "a dollar sign." "We can look at sharks and monk seals as creatures in their own right. Why not tuna?" she asked, noting that even engineers at MIT envy tuna for their efficient propulsion through water. "They are an engineering marvel, and all we can think of is eating them," she said.

**Sergi Tudela** suggested trying to shift tuna's image as a global icon for overfishing to a global icon of recovery. "If even the most hopeless case can react to good management, this is a very strong message for global fisheries," he said.

## **SESSION TWO: Perspectives for the sustainable exploitation of marine resources**

**Miguel Bernal**, Officer in charge of Fisheries at the GFCM Secretariat, noted three causes of depleted fish stocks: degradation of habitats, climate change and, above all, overfishing. It is a question of



adaptation, he said: “Humans are the fastest species to adapt, developing new technologies for fishing, accessing new areas and new species. All the species can do is move or alter their rate of reproduction,” he said. Even so, “as we’ve seen with bluefin tuna this morning, when we give them a little time and a little space, they do recover and adapt,” he noted.

**Lisa Speer**, Director of the International Oceans Program at the NRDC, emphasized the importance of integrated management, and said the high seas represented an opportunity in this regard. A new international instrument is in the works at the UN which would outline a legal framework for Marine Protected Areas in the high seas, she noted. The Arctic in particular provides the chance to implement a scientifically sound, ecosystem-based approach before industry begins exploitation, she said.

President and CEO of the World Ocean Council **Paul Holthus** agreed. To that end, his organization has created the Arctic Leadership Business Council, bringing together actors from shipping, fisheries, oil and gas, tourism and mining to study how to use Arctic resources responsibly and to engage with governments and NGOs.

Mr. Holthus cited a recent speech by Prince Albert II of Monaco, in which the Prince noted that “there is no point in creating a new ocean governance if it is done independently of the realities of the current economy,” whether relating to transport, food or other activities. “We should encourage and facilitate the involvement of economic players in the use and governance of ocean resources,” Mr. Holthus concluded.

**Rupert Howes**, CEO of the Marine Stewardship Council (MSC), agreed, and sounded a note of optimism. “Markets have a key role in demonstrating sustainability. There are many well-managed fisheries out there,” he said, noting that the MSC has assessed and certified roughly 300 of them, representing 10% of the catch. The key is to empower consumers to make the best environmental choices, in turn putting pressure on the industry, Mr. Howes said.

François Simard, Deputy Director and Senior Advisor for Fisheries at the IUCN, presented an innovative ecosystemic approach his organization has developed, called “balanced harvesting.” Rather than today’s selective fishing, which targets a narrow range of species and individuals, the approach spreads targets over a broad diversity of species and sizes. This “vertical” harvesting allows the ocean ecosystem to maintain its natural balance and productivity and reduces negative impacts. While this is a promising direction for the future, Mr. Simard warned that “first of all, in any event, we have to fish less.”

**Arne Benjaminsen** is Acting Secretary General at Norway’s Ministry of Fisheries and Coastal Affairs. He emphasized that ecosystem-based fisheries management must be based on sound research to understand interactions among fish stocks.

Norway, whose herring, cod and mackerel stocks almost collapsed in the 1960s, took action to reduce its catch and as a result those stocks have largely recovered. Today, Mr. Benjaminsen said, quotas are historically high. He credited international cooperation, notably between Norway and Russia, with enabling the ecosystem-based management that has permitted North Atlantic cod’s recovery. The two countries have had a common fisheries commission since 1975, which shares research and establishes quotas, he explained.

Miguel Bernal then shared his experience with international cooperation in the Mediterranean, where despite a great diversity of fleets and local economies, the regional fisheries organization manages to unite countries around common objectives. This year they have set up meaningful rules and agreed on a management plan, he said.

Moderator **Céline Cousteau** brought up the issue of illegal and underreported fishing. Norway's Mr. Benjaminsen said that all European states now cooperate to fight it. "You can't land unreported fish in any European or Moroccan port, and coast guards also cooperate," he noted. Alongside other partners, Norway and the Pew Foundation are financing an Interpol project to fight illegal fishing, he added.

Rupert Howes stated that good public policy and enforcement were necessary, but that the private sector could also act. One example is McDonalds – the restaurant chain now carries the MSC ecolabel on its Filet-o-Fish sandwiches, and works with its existing suppliers to make the changes necessary for them to earn MSC sustainability certification, Mr. Howes said.

Paul Holthus mentioned the World Ocean Council's efforts to scale up industry's role in collecting and sharing data. With up to 80,000 merchant vessels and 1,200 drilling platforms in the ocean today, whose companies also need data, it makes sense to work with them. To this end, the WOC has launched the Smart Ocean/Smart Industries initiative to improve and expand data collection, he said.

The discussion then turned to aquaculture. President & CEO of Novus International **Thad Simons** represents the input side of aquaculture, as a feed ingredient producer. He said his company was trying to help aquaculture to transition away from using fish to feed fish, toward nutritional supplements, as Novus has done with livestock for some time now.

The global population is expected to grow from today's 7 billion to 9-10 billion by 2050, and "we will need to produce as much food in the next 40 years as over the past 10,000" Mr. Simons affirmed. As there is no better source of protein than fish, "a lot of that will have to come from the sea," and the challenge for aquaculture is to raise fish in more sustainable conditions, Mr. Simons said. He bemoaned the lack of a policy framework for aquaculture, which he said was hindering investment.

Mr. Benjaminsen said Norwegian fish farming was at a crossroads. The problems of sea lice and escapes need to be addressed prior to further expansion of the industry, he said, which depends on biological research. A whole new veterinary research field is now developing in Norway to meet this need, and marine biotechnology could also support the industry, he noted.

**François Simard** warned that while aquaculture is one response to the planet's increasing food needs, and already represents almost half of all fish consumed, it presents challenges. For one, using fish to feed farmed fish is not sustainable at current levels, he said, and alternatives such as soy protein may have unforeseeable impacts on ecosystems. Micro-algae hold promise, however, as even reputedly carnivorous fish have proven able to thrive on such feed alone, he said. He echoed others' calls for an ecosystem-based development policy for the sector.

Mr. Howes added that fish farms should be held accountable in the same way wild fisheries increasingly were, and certified according to whether they were sustainable or not. The MSC is working towards implementing a consumer eco-label system for aquaculture similar to that for wild fish, he said.

Regional Coordinator of SIPAM and former GFCM Commissioner Mohamed Hadj Ali Salem warned that aquaculture was no miracle solution. Alongside the question of feed for farmed fish is that of space. In the Mediterranean, Tunisian fishermen and fish farmers have come to blows over the issue, he said.

### **SESSION 3: Marine Protected Areas at the Heart of "Blue Growth"**

Moderator **Sebastian Troeng**, Vice President of Conservation International, introduced the topic of



integrating conservation with socioeconomic benefits by noting that the value of the ocean's "ecosystem services" is estimated at \$21 trillion per year. The question is "how to use the interest without drawing down on our capital," he said.

CI has established a tool for measuring ocean health and setting sustainable standards for different uses of the ocean, called the Ocean Health Index. Of the 10 economic and social benefits the ocean delivers, MPAs contribute to the resilience of 7, Troeng noted, which makes them a very effective driver of "blue growth."

**Purificacio Canals**, President of MedPAN, said cooperation between fishermen and MPA managers was growing as the industry began to see the positive results of better management of the resource, including a higher market price for fish. "They are beginning to understand the value of quality over quantity," she said.

Tourism, and particularly diving, also benefits from MPAs, but it is important to continue to insist on sustainability to balance economic and social gains with preservation goals. Accessible communication is necessary to explain the need to consider the ecosystem as a whole. While the general public or tourism professionals may not see the point of vast sea reserves aimed at protecting *posidonia*, for instance, these marine plants play an important role in halting beach erosion, which is a tourism benefit, Ms. Canals noted.

**Eric Banel**, General Secretary of French ship-owners' group Armateurs de France, said French ship-owners have long worked with MPAs. Ship-owners mean not just tankers but also oceanographic research vessels and cruise liners, the latter two of which benefit from MPAs. It is important that MPA planners and managers sit down at the table with shipping professionals and negotiate, as they do with fishermen, he said, noting that the Pelagos sanctuary is a good example of such cooperation. Ship-owners have adopted best practices such as equipping vessels with systems to track and avoid collision with marine mammals.

The problem is that not all countries' ship-owners abide by the same rules, Mr. Banel said. Therefore his organization is now working at the European level to create an eco-label for shipping, such as that which exists for fair trade or sustainable fisheries, he explained. "Today there's no way to give added value to those who play by the rules. We strongly believe in this process," he said.

**Jean-Yves de Chaisemartin**, Mayor of Paimpol and a marine business owner, called MPAs "the most important starting point for integrating blue and green into our development." This requires strong local political will. The challenge when developing marine business projects such as in his field of micro-algae is to integrate conservation from the start. He cited three rules: conduct research to estimate the impact of projects, define and prepare measures to counter those impacts, and finally, go slowly. However, France's strict application of the precautionary principle discourages innovation, he said, adding that on the contrary, "developing business opportunities is the best opportunity for furthering knowledge" of the oceans.

**Bruno Chabas** is CEO of SBM Offshore, which supplies systems and services to the offshore oil and gas sector. Expansion of offshore oil and gas is inevitable, and the share of offshore oil will grow from today's 30% of all production to 45% in the future, he affirmed. MPAs are a helpful framework for getting the full range of marine stakeholders to sit down together well ahead of planned development to decide what to do and how to ensure the greatest benefit to all, Mr. Chabas said. He has experienced this himself in his work for a previous employer, who laid a pipeline to deliver gas to Florida in the middle of an MPA and manatee reserve off the Florida coast.

Indeed, said **Dan Laffoley**, Marine Vice Chair of the IUCN's WCPA, approaches to MPAs need to



evolve. “We tend to focus on biology and physical processes. We also need to focus on socioeconomic arguments and address them early on,” he declared. Mr. Laffoley identified a “skills gap” in the MPA community: “Marine socioeconomic is a massive opportunity. We need to equip environment ministers to be able to communicate with finance ministers.”

Financing for MPAs also needs to be reconsidered, and approaches diversified or adjusted. In Bonaire in the Caribbean, for instance, while divers today pay a \$10 annual fee, research has shown they are willing to pay between \$61 and \$100 to dive there. Just doubling the current fees would pay for that MPA’s management, he said. Payment for “ecosystem services” is another avenue, which implies quantifying the benefits of protecting a marine ecosystem. And finally, Mr. Laffoley argued, though “it makes politicians nervous,” more of the ocean needs to be protected because “size matters: when you scale up, costs may be bigger but the benefits are even bigger.”

**Francis Vallat**, Chairman of the French Maritime Cluster, reminded us of the importance of working with fishermen and encouraging them to participate in forums such as the Monaco Blue Initiative.

France is No. 1 in the world for quality and safety in shipping, he said. “There are some dirty jobs, like transporting fuel. You had better have good operators for dirty jobs, and not dirty operators,” he affirmed, adding that his industry grouping has a good relationship with France’s MPA agency working on issues like noise at sea, mapping and renewable marine energies. “Sustainable development” is a term that contains two words, and “they go together – it’s not one against the other, even if we don’t always agree,” Mr. Vallat said.

## Synthesis and Concluding Remarks

Tony Haymet described the tone of the gathering as one of “cautious optimism.” While we’ve learned that we can save some fisheries, there are plenty of examples of ones that never came back, and “it’s fair to say from the scientific side, we don’t know what fisheries we can bring back from the grave, and which ones are dead apparently forever, so we should bear that in mind when we hear those wonderful success stories,” he warned. Mr. Haymet also regretted the gathering hadn’t really discussed ocean acidification, which is “a desperate problem for all of us.”

François Simard pointed out that the depletion of fish stocks is not only the result of overfishing but also of habitat degradation caused by other factors such as pollution, climate change and ocean acidification. It is necessary to find the means to allow nature to adapt to and recover from these changes to the ecosystem. Market forces are a crucial element, while MPAs are also an important tool for helping nature to adapt, and could play a role in fighting against ocean acidification, particularly in the high seas, he said. Finally, ecosystem-based management is imperative, but it requires better research, and is difficult to implement across regions due to differences among countries.

Imposing a moratorium on exploitation of marine resources in the Arctic until a common roadmap is drawn is a good idea, as is the use of eco-labels to raise consumer awareness and pressure, Mr. Simard said. This could be one way to limit the negative impacts of aquaculture, for instance. Regarding the Monaco Blue Initiative itself, its great value and key message is the importance of implicating all the different actors and understanding their activities, he noted.

Sebastian Troeng agreed that the presence of government, industry, science, NGO and cross-sector representatives is MBI’s great strength. This is an example to be followed: “to engage all stakeholders from the start, even if it can be tough to overcome some of the sectoral interest and the perceptions about the motivations of other stakeholders,” he said. “We all like to see ourselves as the good guys but that holds true for all stakeholder groups, and listening is a very important part of that stakeholder



engagement process.”

Possible future paths include monetizing the concrete benefits of MPAs – whether to fishermen, tourists, cruise ships or conservationists – to offset long-term management costs; improving communication as to the benefits of marine protection, and drawing on the best possible science to enable true sustainability, he said. MPAs in particular create the opportunity to involve multiple sectors to jointly develop innovative solutions and win-wins, and to manage trade-offs among sectors, Mr. Troeng affirmed.

Indeed, Prince Albert concluded in his speech, “this is what our initiative sets out to do – not to impose any hierarchy between players, between interests, between points of view – insofar as they share the same conviction: the need to protect our seas and oceans more efficiently.” Such open, sustained dialogue “is the only way of guaranteeing that we won’t stray along incomplete or ineffectual paths,” he said.