The Monaco Blue Initiative is an annual meeting between marine experts under the presidency of HSH Prince Albert II of Monaco. It is co-organized by the Oceanographic Institute, Foundation Albert I, Prince of Monaco and the Prince Albert II of Monaco Foundation.

Its members discuss the most current global challenges for ocean protection and preservation. It is an effective platform for communication and exchange between the different sectors of activity and stakeholders concerned with the sustainable utilization of the ocean and its resources. The aim is to create synergies between the protection of marine ecosystems and socioeconomic development.

The 2014 edition of the Monaco Blue Initiative was organized with the contribution of the University of Concepción. The 2014 edition of the Monaco Blue Initiative was organized with the contribution of the University of Concepción.

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One in four people depend on fish for their daily protein, some 90 percent of big fish have been consumed in the last several years, and 85 percent of the world's fisheries are exploited, depleted, or close to collapse, as highlighted by the film that kicked off the 5th edition of the Monaco Blue Initiative in Santiago, Chile.

“Oceans at the Tipping Point,” introduces an index to measure the health of marine ecosystems in exclusive economic zones (EEZ), a 200-mile distance from a coastline that is limit of a country’s national jurisdiction.

This year’s edition took a look at how to ensure local participation in Marine Protected Areas, how to finance them, and how to increase their effectiveness across sovereign bodies of water. The global aquaculture industry is discussed in the context of how to use the ocean responsibly to feed the world and benefit humans.

Lastly, participants took on governance issues in the High Seas, using the presentation of the Global Ocean Commission report published in June 2014 to start the conversation.

The conversations for the oceans in Chile will continue. In late 2015, the Our Ocean conference will be held in the country as well as the 4th International Marine Protected Areas Congress (IMPAC4) in 2017.

About four percent of the economic exclusion zone of Chile is under some sort of protection, said Chilean Vice Minister of the Environment Marcelo Mena. The president is amenable to increasing that number as well as working towards sustainable policies in fisheries and aquaculture.

“We have enormous challenges but we have the favorable conditions to make things happen,” he said. “We hope the discussions from this conference paves the way for better policies.”
An increasing population needs nutrition, an ocean in need of conservation, and businesses that seek to continue growing, said Juan Carlos Castilla, the moderator. “The key question is: where does the protein go?” he asked. There also needs to be more expansive thinking about the nature of aquaculture, beyond carnivorous species that occupy most of the conversation, and into inland production, filter feeders, invertebrates, and other species, he said. Freshwater aquaculture directly impacts many more people throughout the world.

Two-thirds of aquaculture is in China, and most of the industry’s growth is in freshwater fish there, said Daniel Pauly. At the same time a third of the world’s catch in fisheries is used for fishmeal, and half of that goes to fish-farming. “I consider the farming of salmon similar to the production of Ferrari. Very good for their purposes... but they don’t solve the food problem in cities.” He added that aquaculture does nothing to aid fisheries that have been depleted and need proper management.

Roy Palmer, though, highlighted malnutrition around the world and the role that aquaculture, beyond carnivorous species, plays now and could play in the future as a means of improving nutrition, particularly in poorer countries. “Seafood harvesting is a complete nutrient package,” he said. “We need to maximize our utilization of the ocean.” He also pointed out that aquaculture could also be used for the farming of species like worms, insects, and algae, also providing vital nutrients.

Victor Gallardo added to this idea, that the ocean, and especially countries with western coastlines and richer seas, have vast potential, if managed correctly to provide for human needs. “I propose a new and different system of aquaculture that maximizes the potential of the ocean, in a better way, a more friendly way, to the environment than the one used today, especially considering the experience we have with salmon culture in Chile. But there is huge potential,” he said.

The salmon industry in Chile has seen steady growth rates of between 15 and 20 percent from its establishment in the early 1990s, said Matías Medina. That growth has changed the social and economic and innovation dynamics of the populations in the southern Pacific fjords where the industry is based. But, there have been important impacts to the ocean floor and surrounding waters through density issues, and the use of chemicals and antibiotics, which the industry is aware of, he said.

Then the sanitary crisis led to the first outbreak of the ISA virus in 2007, which decimated the industry and consequently the region’s economy. It was then that the industry took a series of measures to improve their practices, which includes a collaboration with the World Wildlife Fund to achieve sustainability goals by 2020. But, the industry is in need of more investigators and researchers, he said. Some of that research is looking into vaccines and feed alternatives like insects, algae, and worms. “The industry is conscious of their impacts... and making an enormous effort towards sustainability,” said Matías Medina.

A number of questions were raised during the question and answer period. The first, posed by HSH Prince Albert II of Monaco, inquired into the procedures for adequate monitoring of water quality for large-scale aquaculture. “It is a relationship of force,” answered Daniel Pauly, in which companies only respond to government regulation or grassroots movements.

In Chile, said Matías Medina, there is a lot of government-mandated information regarding the monitoring of farmed salmon sites. What was difficult was knowing where to place the regulations with a firm scientific basis. There was often distrust of scientists working in the area. Vreni Haussermann, the director of the Huinay Foundation scientific field station, asked if industry was interested in cooperating with scientists, would be willing to carve out a section of the salmon-producing area to act as a control for research purposes and could help get water samples from the areas around salmon farms. Matías Medina said he was interested in getting the best science possible. He also mentioned the partnership of several salmon companies working in Chile with the Global Salmon Initiative. Members of this group will by 2020 subscribe to be certified by the Aquaculture Stewardship Council. Certification tools within the industry are likely to be what drives monitoring, said Roy Palmer, of the aquaculture industry.

Sylvia Earle questioned the basic premise of fish farming, wondering why can’t we focus on what the fish eat as a source of protein, like dinoflagellates. Others, like José Maria Figueres, questioned the idea that aquaculture is actually sustainable, saying that it would be much more sustainable if we, “close the high seas to fishing instead and allow the high seas to regenerate. That is much more sustainable than what we are now trying to do.”

As the discussion focused on how to extract more resources from the ocean, Dan Laffoley, the Marine advisor for the IUCN, reminded everyone that the discussion might be putting the cart before the horse. If the ocean continues to change and conditions for aquaculture become less favorable, citing ocean acidification, “don’t we have some dangerous assumptions that aquaculture might save the world,” he said. “Because if the ocean is going to bail out on you, what are we going to do then?”


Moderator: Dan Laffoley
Marine Vice-chair of the IUCN’s World Commission of Protected Areas (WCPA).

Speakers: Christophe Lefebvre. IUCN Global Ocean Councilor and Coordinator, International Affairs for the French Marine Protected Areas Agency, Tearii Alpha, Minister of Marine Resources, French Polynesia, Alejandra Figueroa, Head of the Department of Natural Resources, Ministry of Environment, Chile.

Video messages: Sandra Bessudo, Director of the Colombian Agency for International Cooperation, Anthony Lecren, New Caledonian government.

Anthony Lecren, the Minister of Sustainable Development for New Caledonia, highlighted that fisheries development and aquaculture are marine economic activities which can be compatible with marine biodiversity and the implementation of marine protected areas network.

They have been used in his efforts throughout the Coral Sea. Currently, New Caledonia continues to work with Australia on covering the entire Coral Sea with a Marine Park. “We need to establish and strengthen these bridges between us,” he said. “Let us set up the foundations worldwide which will enable use to save the oceans”.

Now more than ever there needs to be good articulation between marine protected areas and local communities, said Sandra Bessudo. “We don’t want them to be paper Marine Protected Areas, but to be duly financed and effectively managed” she said, citing the Malpelo Fauna and Flora Sanctuary, a UN World Heritage Site.

It is essential that coastal communities be at the center of efforts by government and private parties, she said; “They need to be dynamic actors, not just beneficiaries, and active participants in the actions and solutions,” she said. Long-term sustainability of the project requires dialogue between all parties, including environmental officials, and both industrial and small-scale fishing communities. She cited the Parque Nacional Uramba Bahia Malaga as an example of coordinated work between the national park service and five diverse community organizations to establish guidelines for the cultural and ecological values of the region.

Procedures to involve the community have become more common in MPAs, which Dan Laffoley described as one of the best tools in the box of conservation, “if set up correctly”. “Bringing partners together to look for win-win solutions, we see those types of messages weaving through all sorts of initiatives, like the Global Ocean Commission and the Our Ocean conference”.

But it requires all partners to be working together, and having high-level policy-makers recognize the ocean. It is also a vital opportunity not to think in the moment, but begin the process of imagining new structures in the future that will aim towards the 2020 goal of having 10 percent of the ocean in Marine Protected Areas.

One of the main tools to involve all stakeholders in ocean conservation is marine-spatial planning, said Christophe Lefebvre. This mechanism draws up plans to identify the utilization of maritime space for different sea uses to be compatible with marine ecosystem conservation. And within these planning processes, Marine Protected Areas must be included.

Marine spatial planning is expected to be a “significant stream of action” in the run-up to the 2020 International Marine Protected Areas Network Agenda, or IMPANA 2020 and the associated initiatives, like the five-year Ocean+ MPA action programme. It is also a mechanism to involve local communities, whose participation “must be the expression of the ecosystem-based approach,” that reflects competing sectors, said Christophe Lefebvre, and must be a fundamental step in integrated marine use and planning. “You must engage users of the sea and get them to feel responsible,” through democratic and consensus-based mechanisms, said Christophe Lefebvre. “...and understand the different marine users, their activities and how these users interact.”

But, in cases like Chile, a number of protected coastal marine environments have been implemented as a reaction to an environmental threat, and have been constructed with limited resources and scattered governmental jurisdiction, said Alejandra Figueroa. Although it has been changing, much of the management of the areas is conducted by productive agencies more concerned with fisheries supply than conservation.

“Planning is a critical element... the reactive doesn’t always solve our conservation problem, and we have to plan ahead much more,” Alejandra Figueroa said. “If we don’t involve the community and we are not clear in our messages about what we can accomplish, effectively it can later be really hard to move forward with legitimacy.”

This was a concern of Katerina Vargas, who manages the “Isla Grande de Atacama” multi-use marine protected area. She explained that even with best intentions, there is often difficulty in uniting all the competent government institutions involved in its management... Unfortunately, communities therefore fail to understand how this experience can benefit them.

For some nations it is much easier to involve the community, like the experience of French Polynesia. “We are all sea users,” said Tearii Alpha. The protection of the lagoons among the islands is only possible if all the interests of stakeholders, the community, science and business are met. In some cases, this means bringing together the interests of science, local communities and development goals. French Polynesia have three Marine Protected Area initiatives in process, which are all connected to a World Heritage Site application process and some of which will be managed by elementary school children.

Christophe Lefebvre questioned the assumption that ocean governance is the sole provenance of governments and sea users.”I feel like the future of the ocean should not be just in the hands of sea users or coastal communities. I think the future of the oceans is all of human society... it’s a challenge, how to make sure all the people of the planet have a concern for the ocean,” he said.
The session was initiated with the presentation of the Global Ocean Commission findings by José Maria Figueres after an 18-month global evaluation to identify past initiatives for ocean conservation and make improvements to them, as well as suggesting for the future.

The report listed five distinct vectors of ocean degradation, among them over-fishing and lack of high seas governance, calling it the “Wild West.” It suggested eight specific measures to improve the ocean’s health, including eliminating the “spaghetti soup” of organizations that presents fractured decision-making. If certain goals involving extractive practices are not met within five years then the High Seas should be shut down, the report concluded.

In smaller areas, like the Chilean Antarctic, a number of effective tools have been put in place for control, with large Marine Protected Areas, licensed vessels under satellite observation and bottom-trawling made illegal, said José Retamales. He noted that the Chilean Antarctic Institute still suffers from a lack of scientific tools, including vessels, to do proper data collection.

But Sylvia Earle pointed out in her speech that this is a special time in ocean conservation and specifically the High Seas. The amount of data about the oceans available to us now, and the technology to secure even more is much greater than ever before. Thus, it is a tremendous opportunity, she said, to adjust the human-centered policies created when we didn’t know as much. “Imagine the next 10 years, 30, 50, 60, 100, 100,000 years,” said Sylvia Earle. “This is a pivotal time when decisions will be made to secure the integrity of the systems upon which our lives depend.”

That was echoed by Kristina Gjerde, the IUCN High Seas policy advisor, who noted that in addition to the traditional threats of over-fishing underneath the surface, we are also changing the atmosphere, and thus altering the basic chemistry of the ocean. To reverse this, she said, a renewed sense that the ocean is a global common is needed. “How do you reinvigorate the public trust, or public responsibility that for too long has been beyond national jurisdiction?” she asked. For her, the answer is pulling together the legal basis, scientific information and satisfying questions of fundamental equity when it comes to the exploitation of the High Seas. Over the last decade, she has seen a lot of it come together in the form of awareness and a sense of responsibility at the United Nation working groups on biodiversity conservation on the High Seas.

In international meetings, momentum is building towards acting upon a deadline for biodiversity and national jurisdiction issues being contributing by new actors like Uganda, Liberia and Jamaica. They are contributing, with “overwhelming enthusiasm”, agitation and energy like never before, Kristina Gjerde said. “These new voices are what we need to have groundswell of support to get over this hump.”

But in places like the waters surrounding the Antarctic, institutions like the Convention for the Conservation of Antarctic Marine Living Resources, or CCAMLR, are consensus-based, allowing a few nations to block initiatives sought by the majority, said Karen Sack. “That consensus requirement enables a small minority of states to hold up a small majority states with tremendous biodiversity resources.” In this case, a decision to protect the seas out to the 60 degree line has been blocked for the last three years. “Sustainable use has been in the forefront and conservation is falling behind,” she said. She reinforced the importance of focusing on the Southern Ocean, because of its role in producing much of the ocean life that then circulates through the world on extensive upwelling coastal currents.

In the Arctic, where an ocean the size of the Mediterranean is forming, the Arctic Council is considering freezing fishing there until a solid understanding of what was or is below the ice, and can set fishery quotas on a science and ecosystem-based approach, said Karen Sack. CCAMLR is one of the few institutions that have a double-mandate of fisheries management and conservation, said Stéphanie Belna. That in itself is an achievement, as management of the high seas has often been fragmented and should include representatives from other sectors, she said. In the past, organizations have been constituted by fishery organizations and only recently have other actors, like those involved in conservation, become part of them. Fundamentally, regulating the high seas in a responsible way requires original institutions, she said, “We need original ocean management organizations to regulate human activities in the high seas,” Stéphanie Belna said. France is very supportive of this process at the United Nations. There needs to be a shift from regional fisheries organizations to regional oceans organizations, said Karen Sack. Kristina Gjerde noted that there needs to be an evaluation of how an optimal oceans organizations that takes into account the different variables of interest to distinct stakeholders looks like.

Per a question by Matt Rand, the Global Ocean Commission report does not specifically address the functioning or effectiveness of High Seas institutions. A question was raised as to how to communicate or promote national interest in the high seas. Sylvia Earle, sounding a positive note, reminded the conference that this is a “fixable problem... we have the power now to inform the world that didn’t even exist five years ago. Part of our job here... is to communicate why the ocean matters.”

Kristina Gjerde was more pragmatic, reminding attendees that much of the High Seas over-fishing robs from fishery stocks in Exclusive Economic Zones. “Get the economic drivers,” she said. She added that conservation of species can’t only happen in near-coastal habitats, like spawning grounds. “It takes international cooperation to protect them across their whole range,” Kristina Gjerde said.
In his opening comments, Sebastian Troeng mentioned several tools, including capacity-building, finding different revenue streams by making the project more appealing to investors, and potentially engaging extractive industries.

Trust funds, one of the mechanisms, are useful to identify needs, coordinate with different actors, identify complementarity of projects and then finance projects, said Philippe Mondielli. Before the development of the Mediterranean Trust Fund in late 2013 by the governments of France and Monaco, the Prince Albert II of Monaco Foundation received hundreds of project proposals a year, some with specific impacts upon the Mediterranean MPAs. But they were often at a loss to identify a project’s added value, or the overall financing structure in the context of other existing efforts. Now the trust fund acts as a clearinghouse for research, and ensures these projects reflect MPA priorities. “It is the first effect of the dynamics of the trust fund,” he said.

Despite a need for more partners and funding (Tunisia and Morocco have since joined), the trust fund is poised to be active in those countries that clearly indicate an intention to strengthen and implement a policy dedicated to MPAs, he said.

Using her experiences in Central America, Maria Jose Gonzalez pointed out that it is important not only to be able to raise the money, but also to establish the mechanism to distribute the money back to the MPA. And there are increasingly more mechanisms to extract financing from users who benefit from the MPA, from $1 hotel taxes, to sales of specialty license plates, to taxes on cruise ship passengers. It is vital that the management of those financing mechanisms be correctly set up.

Charlotte Gobin echoed the importance of strong foundations to these mechanisms. “Before thinking about the mechanism you need to think about all the conditions are well set up so that this mechanism can succeed,” she said. This includes fully comprehending the transaction costs of the mechanism, which can be very high, ensuring involvement by all stakeholders, and building the capacity to operate these systems.

In the case of Chile, she said, there was a budget gap of some 60 percent for their national protected areas when the government approached the GEF for assistance. What was discovered was that only 50 percent of the parks had a master plan or proper business plan. So, when conservation trust funds are considered, “they are very long, costly, and require lots of experience and up front funding... so make sure they have a business plan that makes sense,” Charlotte Gobin said.

A question by Sylvia Earle from the audience asked about the role of blue or green credits, using carbon sequestration credits, to pay for marine reserves. But Charlotte Gobin replied that early attempts to set these up in Guinea Bissau and Turkey were made difficult by a lack of legal foundation and market for carbon credits.

Matt Rand questioned the premise that Marine Protected Areas should be considered entities that require self-financing. They should be considered public goods that require a different public policy. “I’m worried we are setting up the dynamic that the protection of nature needs to be profitable,” he said. “If we wait for all the stars to align and all the money to be there, we will run out of time.”

But, he did note that there are examples of costs of marine reserves being offset by tourism in as little as five years. Take Palau for example, where eight percent of the economy is based on marine tourism, which globally has been growing at a rate of 33 percent, Matt Rand said. The very premises of who should be paying for Marine Protected Areas was similarly questioned by Dan Laffoley. “I find it odd... that we don’t subsidize the mangroves that make people healthier. There is something in the macroeconomics that are so completely wrong here... the next generation is not going to forgive us.”
Conclusions

In the closing addresses, Waldemar Coutts, Director for Environment and Maritime Affairs at the Chilean Ministry of Foreign Relations, said that Chile and the recently elected government of President Michelle Bachelet are committed to tackling illegal fishing in the high seas and is preparing for the Our Ocean conference to be held in Chile late next year and IMPAC4 in 2017.

HSH Prince Albert II of Monaco pointed out that amidst the dire news of ocean health and ongoing challenges there were opportunities.

"Beyond their specificities, the topics we have talked about today - aquaculture, marine protected areas and governance of the high seas - all raise the same question: the ability of humans to coexist with the sea, and with nature more broadly.

This coexistence reveals a major contradiction that has come up repeatedly during our discussions. How can we achieve the commitments that are so often ignored.

All of this work is not just about shrinking the stocks to rejuvenate, for example, the codfish. I consider the farming of salmon similar to the production of Ferrari. Very good for their purposes... but they don't solve the food problem in cities.

HSH Prince Albert II of Monaco

After the closing words of HSH Prince Albert II of Monaco, the convention moved to an adjacent room to celebrate a partner venture of the Monaco Blue Initiative, the creation of a Marine Conservation Strategy for Easter Island. Several members of the community had traveled to Santiago to celebrate along with the Pew Charitable Trusts which has developed the initiative as part of their Global Ocean Legacy program.
OCEANOGRAPHIC INSTITUTE, FOUNDATION ALBERT I, PRINCE OF MONACO

Since its creation in 1906, the Oceanographic Institute is committed to sharing knowledge on the richness and fragility of the oceans, and promoting their sustainable management and efficient protection. For this, it acts as a facilitator between scientific and socio-economic players on the one hand, and the public and decision-makers on the other. Through its crucial links with the scientific community and economic partners, the Oceanographic Institute develops a global vision of the Oceans’ challenges, joining together the environmental, economic and social aspects. The Oceanographic Institute uses a wide range of communication tools covering all publics: the “Maison des Océans” in Paris and the Oceanographic Museum of Monaco for expert symposiums, public conferences and exhibits; editions; internet and social networks.

For more information: www.institut-ocean.org - Tel: +377 93 15 36 00

PRINCE ALBERT II OF MONACO FOUNDATION

In June 2006, HSH Prince Albert II of Monaco decided to set up his Foundation in order to address the alarming threats hanging over our planet’s environment. The Prince Albert II of Monaco Foundation works for the protection of the environment and the promotion of sustainable development. The Foundation supports initiatives conducted by public and private organisations within the fields of research, technological innovation and activities to raise awareness of the social issues at stake. It funds projects in three main geographical regions: the Mediterranean Basin, the Polar Regions and the Least Developed Countries. The Foundation’s efforts focus on three main sectors: Climate change and renewable energies, biodiversity, and integrated and sustainable water management together with the fight against desertification.

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