



THE OCEAN COMMUNITY REPORT:

BUILDING AN ALIGNED AND SUPPORTIVE OCEAN CONSERVATION COMMUNITY



The Aspen Institute's Ocean Community Study & Dialogue

For all inquiries, please contact:

Energy & Environment Program
The Aspen Institute
One Dupont Circle, NW
Suite 700
Washington, DC 20036
Phone: (212) 895-8005
Fax: (202) 467-0790

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The Aspen Institute

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Suite 700
Washington, DC 20036

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A report of the Aspen Institute Energy and Environment Program's Ocean Community Study & Dialogue. 2013.

David Monsma, Executive Director, and Nicole Buckley, Senior Program Manager, Energy and Environment Program, The Aspen Institute.

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The Aspen Institute is an educational and policy studies organization based in Washington, D.C. Its mission is to foster leadership based on enduring values and to provide a nonpartisan venue for dealing with critical issues. The Institute has campuses in Aspen, Colorado, and on the Wye River on Maryland's Eastern Shore. It also maintains offices in New York City and has an international network of partners. www.aspeninstitute.org

The Aspen Institute's Energy and Environment Program provides a decidedly neutral forum for constructive civil society dialogue on complex policy issues in the areas of energy and environmental policy, thereby deepening knowledge, broadening perspectives and enhancing the capacity of leaders to solve problems. The Program periodically convenes strategic groups of experts from government, business, academia and nonprofit organizations in dialogue series structured and moderated for discussion, exploration and consensus building around energy or environmental topics.

The Aspen Institute's Ocean Community Study & Dialogue is a partial exploration of recent marine protection advocacy and strategy effectiveness. In collaboration with the Institute's **Advocacy Planning and Evaluation Program** and **Duke University's Nicholas Institute for Environmental Policy Solutions**, this study aims to identify ways to improve the efficacy of spatial management strategies and, when needed, ocean community collaboration in an effort to reduce the impact of overfishing on ecosystems and the biomass of specific fisheries.

As with all policy dialogues in the Aspen Institute's Energy and Environment program, the format followed the Institute's time-honored approach to intentional, values-based dialogue and adhered to a strict not-for-attribution rule throughout the duration of the dialogue. Individuals who participated in the dialogue are listed for identification purposes only—they are not responsible for, nor do they or their organizations endorse, the report's narrative, conjecture or any errors.

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PREFACE

Over the past two or three decades of marine protection, the ocean conservation community periodically has asked whether the totality of current efforts are as effective as they can be. Are we succeeding or failing? Some suggest a conspicuous failure to adequately address strategic political, policy and social challenges that has impeded greater potential effectiveness. Others are confident that significant ocean conservation progress has been made over the past two decades, which would not have been possible but for the prevailing arrangement of funding, advocacy and scientifically informed policy choices. Historical reality rests somewhere between these two mutually reinforcing perceptions.

To test this ground, **the Aspen Institute’s Energy and Environment Program**, with support from the **Waitt Foundation**, convened a core group of marine conservation experts in December 2012 to discuss recent marine protection advocacy and policy efforts targeting unsustainable fishing. This initiative included externally commissioned studies by **Duke University’s Nicholas Institute of Environmental Policy Solutions** and the **Aspen Institute’s Advocacy Planning and Evaluation Program**, and a multiday Aspen-moderated roundtable dialogue. The resulting report is based on this yearlong investigation into challenges to cooperation and coordination within the ocean conservation community and how organizations can better support each other’s marine protection efforts.

One of the objectives of convening on marine policy and advocacy was, in part, to enable a group of diverse thought leaders—through moderated discussion and a free exchange of ideas—to explore some of the challenges and opportunities facing segments of the ocean conservation community. The Aspen Institute’s Energy and Environment Program places particular significance on convening leaders on energy and environmental policy issues using an intentional, moderated form of civil discourse. The Aspen Institute uses a unique method of convening, where an initial focus is placed on developing observations, findings and recommendations, which serve as the first intellectual step to drive outcomes.

Throughout the Aspen dialogue, which served as a weigh station situated at the crossroads of an ongoing international conversation on marine protection, MPAs served as a conceptual proxy for the many and varied forms of ocean conservation that are needed around the world. Dialogue is self-limiting, but so is unapprised action that is too insular or unilateral to scale or replicate. Successful outcomes depend on how well choices are framed, conveyed and then adopted within or across a community of practice. The Aspen Institute adheres to the convening proposition that good ideas—exchanged and tested among a group with strong differences in opinion—are far more likely to flourish and gain strength than a single champion acting alone. We believe that individual self-interest is best understood in relation to a group’s shared findings on how to undertake long-term objectives in the best interests of society.

A general *esprit de corps* of exceptionalism is found throughout the ocean conservation community. The strength of ocean conservation today owes much to independent voices within the community, as well as to the diversity of thought across a broad array of disciplines and initiatives. The outstanding finding running through both the commissioned studies and the dialogue was that, notwithstanding this strong sense of

accomplishment punctuated by periodic self-reinvention, the ocean conservation community needs to focus specifically on improving the coordination between institutions on a range of technical, funding and cultural issues that sometimes block or limit greater progress in ocean conservation. The group identified several opportunities for developing greater institutional complementarity and better-aligned coordination in the pursuit of strategic marine protection objectives.

Much of the ocean community, like the environmental movement itself, trades in all or nothing propositions. At some level, there appear to be too many competing theories of change, shared by too few advocates, chasing the same limited resources decided exclusively by funders and their experts. While all supported theories of change can and should compete in the marketplace of ideas, equally viable ocean conservation tools are not by necessity mutually exclusive and, in fact, are often best used in tandem.

Another important highlight reiterated in the Ocean Community dialogue process was the need to take the ocean conservation movement outside of its own boundaries, to work with stakeholders who might not be engaged in the process or who don't see the mutual benefit—including fisherman, the military, tribal groups, policymakers and business communities—and working with lobbyists with strong competencies outside of conservation.

This report and its recommendations owe much to the considerable experience and thoughtful contributions by all of the participants in a series of Aspen Institute dialogue meetings throughout 2010 and 2011. The Aspen Institute team is grateful for the generous support and partnership of the **Waitt Foundation** and specifically Ted Waitt, Jacob James and Ayana Elizabeth Johnson. Our thanks as well to Linwood Pendleton and Michelle Lotker of the Nicholas Institute, Anna Williams of Perspectio and David Devlin-Foltz of the Aspen Advocacy Planning and Evaluation Program, for all of their hard work informing and shaping this dialogue through their reports on marine policy and advocacy. A special thanks also to Nic Buckley for her able project leadership.

The Aspen Institute will continue to use its convening method to address areas of indecision within the ocean conservation community, seeking opportunities for achieving consensus and clarity of purpose. As laid out in our recommendations, there is ample opportunity for the ocean conservation community to increase its effectiveness by strengthening collaborations, improving communications, being more strategic and opening itself to becoming more inclusive. We hope to see and celebrate more socially supported, legally durable, meaningfully enforced, innovative, exciting and coherent ocean conservation victories soon.

David Monsma

Executive Director
Energy & Environment Program
The Aspen Institute

FOREWORD

The dramatic decline of marine life is a major global problem in need of urgent and dramatic attention. With one billion people dependent on seafood as their primary source of protein and livelihoods, and 40% of the world's population living within 100 kilometers of the coast, declining oceans ecosystems are not only a tragedy of biodiversity loss, but also threaten humanity's long-term economic and food security.

However, with this great challenge comes opportunity—an opportunity to go far beyond the incremental marine conservation goals we have endeavored to accomplish in the past. We now have the opportunity not to merely protect pieces of our oceans, but to rejuvenate our oceans both biologically and economically.

This is an important opportunity for the ocean conservation community to shift its approach and place needed marine protections and sustainable use practices within a new context: the now prioritized global challenge of establishing long-term food security. With fisheries and aquaculture having a combined global economic impact of \$100 billion annually, and seafood an important source of nutrition – particularly in developing nations – allowing unregulated markets and open-access to these critical natural resources is not a viable option for any stakeholders.

Solutions to our global oceans crisis cannot be solely focused on marine ecosystems, or solely on the people who depend upon and enjoy them. Instead, they must be crafted to achieve a sustainable balance between our ecological, social and economic needs – simultaneously.

We as an engaged community—the ocean conservationists, fisherman, policymakers, businessmen, academics, and members of the public alike—must seek out new opportunities for building sustainable marine-based industries, while also creating systems that protect the biomass, the biodiversity, and the last few truly pristine places in our oceans. Our great challenge is to protect coastal economies and those dependent upon marine resources, while managing marine activity so that our oceans will be healthy and productive for generations to come.

Fault for the current ocean crisis cannot be assigned to any individual, nation, industry, or cause. It is certainly not simply the fisherman working hard to make a living who is responsible for decline. Nor can we just blame exporters, restaurateurs, or final customers; nor governments or cultural norms. We all share blame for the current poor state of our oceans, and we must all be part of the solution. Our broken, ineffective approach to ocean management can be fixed, but only through aligned action.

Importantly, those individuals who can influence how the ocean is used must be equipped to promote change. The echo chamber of myopic conservation goals should be left behind for the targeted information sharing required to move business, policy and conservation leaders toward championing this world-changing view.

The ocean conservation community has the potential to redefine itself as united ocean stewards, charged with protecting and stewarding both critical marine ecosystems as well as the economies of coastal communities and all those affected further down the chain. Only after embracing this mission can this united community collectively set aggressive goals, develop creative solutions to overcome short-term economic gaps, connect directly with those most able to implement change, and, finally, begin to understand how contribution to a greater whole is more significant than attribution for individual success.

This is our last opportunity to create a foundation for ocean protection that will stand the test of time, and while it will take hard work and cooperation, it is only upon that collective foundation that all marine stakeholders – and indeed, humankind itself, will prosper over the long term.

Ted Waitt

Founder & Board Chairman
Waitt Foundation

LIST OF ACRONYMS

BINGO	Big International NGO
CBD	Convention on Biological Diversity
CEA	California Environmental Associates
CHOW	Capitol Hill Ocean Week
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
IUCN	International Union for Conservation of Nature
LAP Program	Limited Access Privilege Program
MLPA	State of California Marine Life Protection Act
MPA	Marine Protected Area
MSP	Marine Spatial Planning
NGO	Non-governmental Organization
NOAA	National Oceanic and Atmospheric Administration
RLFF	Resources Legacy Fund Foundation
TNC	The Nature Conservancy
TURF	Territorial User Rights Fishery
UN	United Nations

INTRODUCTION

There is no question within the ocean conservation community that the world's oceans are in peril and that the threat has been caused primarily by human activities. Skillful conservation leaders have stepped forward in the last three decades to respond to this great threat to the integrity of our oceans and the livelihoods of those who depend upon them.

In the process of garnering funder support, developing marine conservation initiatives and implementing activities around the world, the ocean conservation community has often impeded its own activities by failing to address areas of disagreement within the community. While disagreement can only be expected—and should be welcomed, in order to take advantage of the opportunities created by divergent competition—the reality has also become that in competing for prestige, funding or theory of change, organizations in the community have, at times, undermined their ability to move forward in concert in a way that would build on each other's efforts, rather than ignoring, disparaging or duplicating them.

In view of a perceived need for greater collaboration, coordination or alignment (i.e., complementarity) within the ocean conservation community, the Aspen Institute has completed a yearlong project assessing the current state of cohesion within the ocean conservation community and strategies therein for building a more coordinated and aligned movement. Through externally prepared studies from the **Nicholas Institute for Environmental Policy Solutions** and the **Aspen Advocacy Planning and Evaluation Program**—as well as an in-person, multi-day dialogue among 30 members of the ocean conservation community—the Aspen Institute gathered information and perspectives to be shared broadly for reflection. The external studies, which accompany this paper in Appendices I and II, are independent reference documents commissioned by Aspen for the dialogue.

Through the Ocean Community Study & Dialogue, the Aspen Institute's goal is to find and actively test the ways in which the ocean community can improve the design, implementation and effectiveness of spatial management strategies and policies to reduce the impact of overfishing on ecosystems and on the biomass of specific fisheries. It does not intend, however, to compare spatial management (such as Marine Protected Areas, or MPAs) with other important tools for marine protection. Disagreement on whether MPAs should be a priority conservation tool will not be resolved here.

This report is intended for:

1. **Policymakers within government agencies** with the power to implement successful spatial management systems and who require data, expert input and the concurrence of most interested parties to select policies with the greatest environmental and economic return on investment;
2. **Ocean conservation advocacy groups** seeking to improve the efficacy of their advocacy efforts and prioritize their own investment strategies; and
3. **Funders of direct ocean conservation and advocacy** looking to understand the potential impact of their investments, the opportunities for future investment and the relative risk of various types of policy and advocacy approaches.

The goal of this report is not to express a set of consensus-built recommendations drawn from the dialogue and commissioned studies but rather to share a series of findings and opportunities highlighted by various participants in the dialogue relating to how the ocean community might be more effective in its efforts. Regardless of how successful (or not) the ocean conservation community has been in curbing the harmful impacts of overfishing, climate change and pollution, and there is much to commend, there is little disagreement that greater efficacy and progress will be necessary to safeguard the world's oceans against remorseless and persistent degradation and to begin restoring the critical ecosystem functions and biodiversity necessary to sustain life.

The objective of the Ocean Community dialogue on marine policy and advocacy is to enable a group of diverse thought leaders, through moderated discussion and a free exchange of ideas, to explore some of the challenges and opportunities facing segments of the ocean conservation community. For the Ocean Community study, the Aspen Institute focused on the coordination and alignment of institutional strategies around MPAs that most interested parties can support. This focus on MPA-specific policy and advocacy was chosen as a proxy discussion for dynamics present in ocean conservation, beyond MPAs.

As with all policy dialogues in the Aspen Institute's Energy and Environment Program, the format followed the Institute's time-honored approach to intentional, values-based dialogue, and adhered to a strict not-for-attribution rule throughout the duration of the dialogue. Individuals who participated in the dialogue are listed for identification purposes only and are not responsible for the report's content.

OPPORTUNITIES IN BRIEF

The following ocean conservation opportunities were highlighted by the **Aspen Institute’s Ocean Community Study & Dialogue**, including input from the 2012 dialogue at Fort Baker, California, and two working studies on marine protection advocacy, policy and management (see Appendices I and II). The recommendations suggest possible opportunities for improving the effectiveness of collaboration among ocean conservation advocacy groups, funders and policymakers working on MPAs. They are not based on group consensus. The specific opportunities are explored in further detail beginning on page 15.

Opportunities for Enhancing Ocean Conservation Community Effectiveness

STRENGTHEN COLLABORATION

- 1. **Endeavor to resolve the specific policy, advocacy and management differences** that cause marine protection efforts to undermine each other in particular geographies and regimes, rather than seeking a unified vision or single solution.
- 2. **Identify and promote opportunities for strategic collaboration** within the community, to take advantage of potential synergies among conservation tools.
- 3. **Focus on advocating collaboratively** for ending unsustainable government subsidies for commercial fishing and creating systems to curtail illegal, unregulated and unreported fishing.

IMPROVE COMMUNICATIONS

- 4. **Re-frame ocean conservation** as a solution to issues such as national security, food security, women’s empowerment and economic development that are perceived as more broadly relevant.
- 5. **Promote win-win opportunities** and re-frame discussion about MPA “winners” and “losers.” MPAs have proven to be effective, and therefore MPA conservation objectives and socioeconomic objectives need not be mutually exclusive; however in many cases, the MPA community has not put forth win-win alternatives.

STRATEGIZE EFFORTS

- 6. **Designate an existing ocean conservation group to act as an information clearinghouse** and independent organization that can help coordinate an MPA community of practice.
- 7. **Provide incentives** for the use and development of collaborative, aligned and sustainable conservation initiatives.

BE INCLUSIVE

- 8. **Foster and elevate the voices** of unorthodox stakeholders who support MPAs.
- 9. **Provide training** to community, political and business leaders to build a broad and well-informed set of spokespeople for ocean conservation.

FINDINGS

The following findings were informed by the two-and-a-half-day dialogue at Fort Baker, the Nicholas Institute’s study “Enabling Conditions and Outstanding Challenges in Marine Protection and Management,” and the Aspen Advocacy Planning and Evaluation Program study “The Best-Laid [Advocacy] Plans.” The findings represent observations accumulated from many months of research and conversation. The intention in sharing these findings is to stimulate thoughtful discussion within the ocean community, in order to support the advancement of shared conservation goals.

I. THE URGENT NEED FOR STAGE TWO

Despite a rapid increase in the number of MPAs and the notable progress toward ocean protection in some parts of the world, ocean ecosystems and their rich biodiversity are increasingly threatened on a global scale. Human wellbeing in many parts of the world depends on these marine resources, and as ocean health declines, coastal communities and entire coastal economies also suffer.

With increasing pressures from climate change, land-sea interactions, a rapidly growing human population and increased consumption of fish products globally, the only real window of opportunity to protect both vital systems and species is now. Within decades, and in some cases sooner, our window of opportunity will have closed. Despite many challenges and limited resources, the ocean conservation community cannot wait for ideal conditions to emerge to do everything possible to protect invaluable ocean resources and the legacy that accompanies them.

Stage One of ocean conservation—consisting of diverse efforts to create MPAs around the world, increased public awareness through education tools, and initial efforts to shift oceans governance toward environmentally sustainable regimes—must now be expanded with Stage Two activities. Stage Two addresses the need for broader, more concerted activities to achieve significant conservation goals (and moves beyond conceptual debates that impede progress toward taking strategic advantage of lessons learned and new opportunities and partners).

Stage Two of ocean conservation must be a coordinated effort to significantly scale conservation efforts by taking advantage of the opportunities for more effective collaboration and alignment recommended in the “Opportunities” section of this report. The Aspen Ocean Community Dialogue found sufficient evidence and need within the community for a more intentional dialogue to work through unresolved and unanswered conceptual incoherence, not just honest disagreement.

“As we do bigger MPAs and larger systems, we need a global strategy to help prioritize where opportunities are, better coordinate activities, make sure that displacement doesn’t affect other MPAs, and create networks across countries.”

Dialogue Participant

For the oceans to be meaningfully protected in the future, significant challenges that have not yet manifested will need to be addressed. The ocean conservation community may now be in a position to influence some of the bigger challenges, such as commercial fishing subsidies, and to create a new legal and institutional framework for ocean conservation on the high seas.

Incentives to overfish will ultimately need to be curbed, requiring major shifts in underlying drivers and both “carrot” and “stick” approaches. Entire markets will need to change, and systems will need to be created that protect human livelihoods and traditions, but that also reduce overfishing. Certain underlying challenges, including poverty, climate change and the macroeconomy, will simply be beyond the scope of MPAs or the control of any single country or community. Addressing these large-scale issues will need to be central to the planning of ocean conservation’s next stage.

The ocean conservation community has the will, expertise, experience, and passion to tackle these challenges; however, it lacks internal alignment. The ocean conservation community is itself an ecosystem of different organizations, communities and individuals across the world. Globally, this human ecosystem includes people who would not necessarily call themselves conservationists, let alone part of a conservation community. An example of this is coastal communities, many of which have relied on ocean resources for hundreds of years, if not longer. Within the U.S., this community is narrower, but still diverse enough that organizations have a wide range of perspectives, strategies and tactics—some of which that appear to be or may actually be at odds with each other.

Some segments of the ocean conservation community have described themselves as unsuccessful to date in creating shared visions under which the community could align. In fact, there is distinct disagreement on whether a shared vision is needed at all. The lack of alignment manifests in debates, missed opportunities for strategic collaboration and undercutting of each other’s efforts. The lack of alignment is, at best, a distraction and, at worst, a barrier that prevents the community from succeeding.

Nevertheless, the many successes and great efforts of the past decades of ocean conservation should be applauded and celebrated, even as the community moves on to a second stage that builds on this foundational work.

II. THE CASE FOR MPAS IN FUTURE CONSERVATION WORK

MPAs are a tool widely accepted by the ocean community as being highly effective at restoring wild habitat and fish populations and, therefore, are worthy of further reflection and development. When discussing MPAs, we must keep in mind that the term “Marine Protected Area” encompasses a range of protection levels, from no-take zones to protected areas that allow activities like fishing and diving. While potentially expensive to develop and implement, MPAs in an array of forms are a universally recognized conservation tool that can be used as a foundation for complementary partial-protection strategies that aid in maintaining sustainable fishing levels, such as regulation of landed catch.

Specifically in regards to the restoration of fish stocks, the Congressional Research Service (in “Marine Protected Areas: An Overview,” CRO 2010), explains well the benefits of MPAs for fisheries protection when MPAs are matched to appropriate areas:

Fishing disproportionately removes larger and older fish—often because they are more highly valued by recreational and commercial fishermen, and because of regulations that protect smaller and faster-growing fish to increase stock yields... MPAs could be beneficial if fish remain in the protected area and grow to relatively larger sizes.

Responding to those who believe that MPAs cannot address overfishing, Dr. Sanchirico explains (in “Marine Protected Areas as Fishery Policy: A Discussion of Potential Costs and Benefits”, Resources for the Future, 2000) that the many ecological benefits of MPAs include protection of larger and older fish in addition to overall fish stocks, and improvement to habitats under protection. He cites Polacheck, Pauly, Palumbi, Carr and Reem, among others, as scientists whose work has provided evidence to support this hypothesis. As Tundi Agardy states, MPAs are “arguably one of the most powerful tools available to combat ever-increasing over-exploitation of marine resources and degradation of ocean habitats” (“Mind the Gap: Addressing the Shortcomings of Marine Protected Areas through Large Scale Marine Spatial Planning,” Marine Policy, 2011).

In addition to the overfishing-prevention aspects, MPAs have also proven to be beneficial in terms of the long-term sustainability of fisheries by encouraging general education, tourism and other conservation efforts. As described by the Congressional Research Service, MPAs serve to “stem declines and to permit the rehabilitation of these environments and populations.” Other benefits of MPAs related to overfishing, as described in the report, include producing a baseline of scientific data around “current and changing conditions in the marine environment,” and increasing public awareness of the need for fishing regulation through the creation of public educational resources.

“We need to shift from an NGO type, local community-focused model toward high level governance planning, taking it up a notch in terms of scale to create sustainably funded networks of protected areas.”

Dialogue Participant

Currently, 1.8% of the world’s oceans are protected in MPAs, although only 35% of these protected areas are comprised of “No Take Zones,” where fishing is prohibited. To achieve the goal of the Convention on Biological Diversity to protect 10% of the world’s ocean area, an estimated 2.5 million new reserves would need to be created if the historical average MPA size is maintained, as estimated by Dr. Enric Sala. In order to create a more efficient system of establishing larger or better networked MPAs, future policy must focus on governance and scaling. In doing so, it is also imperative to look at where MPAs (and the conservation cultures that guide their development) have succeeded and where they have failed to produce great recovery of fish stocks.

As Octavio Aburto-Oropeza et al describe (“Large Recovery of Fish Biomass in a No-Take Marine Reserve,” PLOS, 2011), factors such as social and ecological context can be significant factors in an MPA’s success:

No-take marine reserves are effective management tools used to restore fish biomass and community structure in areas depleted by overfishing. Cabo Pulmo National Park (CPNP) was created in 1995 and is the only well enforced no-take area in the Gulf of California, Mexico. ... By 2009, total fish biomass at CPNP had increased to 4.24 t ha⁻¹ (absolute biomass increase of 3.49 t ha⁻¹, or 463%), and the biomass of top predators and carnivores increased by 11 and 4 times, respectively ... The absolute increase in fish biomass at CPNP within a decade is the largest measured in a marine reserve worldwide, and it is likely due to a combination of social (strong community leadership, social cohesion, effective enforcement) and ecological factors.

The social and ecological factors leading to the success or failure of particular marine reserves point to specific applications where MPAs can play a central role in addressing the ocean conservation challenges arising from overfishing, which include protection of coral reefs, seamounts and mangrove swamps, prevention of bottom trawling and trophic cascades, and collection of data needed to inform the political and scientific process.

MPAs, then, have significant potential benefits; yet we must address concerns about their effectiveness. Responding to this debate (“Marine Protected Areas: Country Case Studies on Policy, Governance and Institutional Issues,” FAO Fisheries and Aquaculture Technical Paper No. 556/1, 2011), the FAO UN Fisheries and Aquaculture Department asserts that:

Despite the long-term, widespread use of spatial management tools in fisheries management and conservation, there remains significant confusion regarding the establishment of MPAs with varying objectives, as well as the general role of MPAs meeting multiple objectives within fisheries management. ... Despite the many studies and guides on MPAs, there is a dearth of information and research on MPAs in a fisheries context, and particularly in relation to governance of MPAs for multiple objectives or the involvement of many institutions.

The FAO's deliberation resulted in the statement that MPAs can be useful for the following fisheries management purposes: habitat and biodiversity protection, creating temporally and geographically defined water columns around fisheries, establishing legal protection mechanisms for fisheries protection and producing ecological and social benefits beyond the boundaries of the MPA.

“MPAs aren't a silver bullet but they are a bullet. Part of the key is understanding when MPAs are the right tool within the toolbox.”

Dialogue Participant

There is an urgent need to establish and implement effective MPAs and MPA networks around the world. MPAs are critically important tools that, on a case-by-case basis, can meet multiple objectives. There is a tremendous amount of work needed to ensure that MPAs (and also areas that are protected, but not necessarily called “MPAs”) have the tools and resources they need to be implemented and, where necessary, enforced.

At the same time, “MPA” is used widely and can mean different things in different contexts. Whether the ocean conservation community should promote MPAs that singularly prioritize ocean conservation for conservation's sake is a hot point of debate (as compared with prioritizing conservation for multiple objectives—including human objectives—at the cost, in some cases, of compromising conservation potential). These two objectives are neither necessarily at odds with each other, nor mutually exclusive.

To move past the debate around the efficacy of MPAs toward where MPAs might be most useful, the community should consider MPAs as one tool in a broader toolbox that the conservation community can utilize more strategically to achieve greater success, alongside Territorial Use Rights for Fisheries, Limited Access Privilege programs, market-based solutions, public education, catch limits, transferable quotas, etc. The entire suite of conservation tools should be considered as a “tool kit” to find the strongest, best aligned and mutually supportive ways to solve context-specific challenges and simultaneously create more win-win opportunities.

The context of MPAs determines the strategies needed, and, therefore, one size does not fit all when it comes to MPA strategy. Approaches to establishing MPAs cannot be applied across the board, and there are particularly large differences between the U.S., European, Asia Pacific and Caribbean contexts. In many parts of the world, economies and cultures are also changing so rapidly that MPA strategies and incentives must be adapted to remain relevant and effective.

III. KEY FACTORS IN THE CREATION OF SUSTAINABLE NETWORKS OF MPAS

The individual efforts of conservation groups to establish MPAs in sensitive marine ecosystems around the world are impressive in scope and effort, and deserve celebration. To build on the potential of this groundwork, the ocean conservation community must now move toward creating larger MPAs and networks of MPAs to significantly increase their impact.

Looking to examples of where this more geographically ambitious approach is being taken, national legislation or nationally imposed conservation goals have, more recently, been motivating the creation of MPA networks. In Micronesia, legislation was passed to effectively conserve at least 30% of the near-shore marine resources (in

addition to 20% of the terrestrial resources) across the region by 2020, as part of the Micronesia Challenge. In the Caribbean, the parallel Caribbean Challenge of 20% of waters managed by 2020 is also creating an opportunity for conservation groups and governments to come together under this goal. For both Micronesia and engaged Caribbean countries, nations have committed to being part of the MPA process through a larger scale initiative, taking seriously these challenging geographic targets.

Legislation and state commitment to these endeavors opens the door for the creation of the large funds needed to engage local communities and for these communities to implement, on a local level, strategies best suited for their specific needs. The infusion of funds has the potential to assist communities in organizing and developing baseline studies and gap analyses.

HIGHLIGHTING SUSTAINABLE FUNDING MODELS FOR MARINE PROTECTION

MICRONESIA CHALLENGE

The Micronesia Challenge is a commitment by the Federated States of Micronesia, the Republic of the Marshall Islands, the Republic of Palau, Guam and the Commonwealth of the Northern Marianas Islands to preserve the natural resources that are crucial to the survival of Pacific traditions, cultures and livelihoods. The overall goal of the Challenge is to effectively conserve at least 30% of the near-shore marine resources and 20% of the terrestrial resources across Micronesia by 2020.

The effort is supported by the U.S. Department of the Interior; NOAA; The Federal Ministry for the Environment, Nature Conservation and Nuclear Safety of Germany; The David and Lucile Packard Foundation; and The Nature Conservancy. The Micronesia Challenge also works with private corporations within Micronesia to sponsor and fund its activities.

ON THE GROUND: PALAU GREEN FEE

As a member of the Micronesia Challenge, the Palau government established a “Green Fee” in November 2009, raising over \$1M for protected areas in the first year. The Green Fee (now \$50) is part of the \$35 departure tax for non-Palauan passport-holders to pay when leaving the territory. The \$50 Green Fee is paid into a national account that is managed by the Protected Area Network Fund board of directors. Community conservation groups are now submitting applications for the \$1.3 million, which has been raised in a nine month period.

CARIBBEAN CHALLENGE

In May of 2008, The Bahamas’ government, alongside leaders from Jamaica, Grenada, the Dominican Republic, and St. Vincent and the Grenadines launched the Caribbean Challenge, a region wide campaign to protect the health of the Caribbean’s lands and waters. Participating governments have committed to managing nearly 20% of their marine and coastal habitat by 2020. The Cayman Islands intends to exceed the Challenge’s goal by protecting 30% of its shelf by the 2020 deadline.

Now, these countries have come together to develop sustainable financing for protected areas through the establishment of the Caribbean Biodiversity fund, which currently has funding commitments of over \$40 million. To support the Challenge, The Nature Conservancy pledged \$20 million in cash and in-kind resources to endow national protected area trusts and provide technical support.

Using a decentralized framework allows for flexible and regionalized activities matched to the target communities and their particular needs, challenges, leaders and habitats. In these cases, the local community can make a commitment with matching funds, for example through Palau's "Green Fee" (a tourist exit fee established to support these conservation efforts). In these cases of locally implemented, sustainable networks of MPAs, local leaders are willing to make commitments and to represent their own communities in the process. These important leaders aid in building a constituency at the local level, pledge commitment to conservation goals and targets, and develop protection plans with clear, locally achievable goals.

By sharing these types of community-level activities, conservation groups have engaged other communities around the world in this process. The communities of Palau were persuaded to take on the Micronesia Challenge after learning about a similar process in the Galapagos in which a Green Fee was used. In establishing locally driven, community-established networks of MPAs with sustainable funding sources, local groups must be meet on a regular basis to discuss what is and is not working.

In setting legislation and commitments to marine protection at a national level, establishing systems for infusing funds into conservation, using a decentralized implementation framework and engaging local leaders—all factors in creating sustainable MPAs and MPA networks—the ocean conservation community significantly improves its chances of establishing true protections.

IV. EFFECTIVE GLOBAL MARINE PROTECTION IS TAILORED TO LOCAL CONTEXT

In planning for future conservation efforts, idealizing the efficacy and general applicability of marine conservation tools can be detrimental to the scaling of marine protection across regions needing varying types of approaches. Marine protection objectives are met by using various tools from within the conservation tool

kit in concert, depending on geography, ecosystem needs and social context. Global models and best practices can be looked to as a source of guidance and, yet, cannot serve as a unified solution for all cases.

“The most robust MPA enforcement process is one that is both bottom-up and top-down. You have to have the legal infrastructure, but also want to have the bottom-up approach and to have them work together. If you have one without the other, you have fragility.”

Dialogue Participant

In the U.S., there is more of a top-down approach to ocean conservation, in part, because of strong legislation and enforcement and, in part, due to the low level of dependency by people on ocean resources for subsistence purposes. In other areas, the tools needed to address conservation and the societal and governmental aspects of implementing tools like MPAs differ significantly. Often, it is possible to have a locally managed area and not need the legality of having that area endorsed. Outside the U.S., NGOs are, in fact, often responsible for implementing MPAs, a situation very different from that in the U.S.

Additionally, the ocean community cannot wait for ideal conditions for establishing protected areas to emerge. In fact, the process of creating an MPA can actually create the conditions for stronger protection.

In some cases, MPAs established 20 to 30 years ago ultimately led to

the government passing legislation affirming these MPAs. MPAs also have benefits beyond direct ecological protection: they attract tourism, raise awareness and often motivate community empowerment.

When addressing the marine protection issues of the countries outside of the U.S. and Europe, some of the challenges are going to be beyond the power of MPAs to resolve. Issues like poverty and market development are far beyond the power of the ocean conservation community to address through MPAs, as the root causes

are simply beyond the scope of this tool and may require other ocean conservation strategies—for example, Limited Access Privilege programs—to properly address. In these cases, conservation and other issues can be addressed simultaneously, such as bringing lesser-known fish to market and creating new demand for fish sourced from struggling communities.

Finally, the ocean conservation community must note that marine areas are managed under the authority of many different laws, institutions and even cultural norms and practices that lie outside the law. Poorly aligned or uncoordinated statutes and institutional mandates can lead to conflicts in jurisdiction over the different ecological, organismal and human components of marine ecosystems.

In the developed world, and among high seas and regional seas areas, a number of examples have been cited where institutional authorities made even the best plans for marine protection difficult. In some cases, the problem was conflicts caused by competing authorities and mandates, and, in others, the problem was inaction due to a lack of clear authority.

Unless legislation specifically addresses the ways in which marine protection complements these existing authorities, MPA agencies are often the weaker peers in the mix. As a result, there is great advantage in pursuing global marine protection through existing, local authorities or processes, rather than creating new processes.

V. THE NEED FOR STAKEHOLDER SUPPORT & RECRUITMENT OF NEW ADVOCATES

Another approach to engaging local communities—as potential conservation supporters—is moving from a narrow focus on MPAs to something encompassing MPAs and MSP more broadly, where more stakeholders also benefit from the process. The key question here is: “What do stakeholders get out of spatial management protection?”

Along these lines, the conservation community could benefit from seeking further opportunities to work with the recreational fishing community. There are likely voices within many recreational fishing communities that are already aligned with the ocean conservation community, and conservation groups should, therefore, focus

DIVERGENT PERSPECTIVES ON CONSERVATION: JOHN MUIR AND GIFFORD PINCHOT

Government protection should be thrown around every wild grove and forest on the mountains, as it is around every private orchard and the trees in public parks. To say nothing of their value as fountains of timber, they are worth infinitely more than all the gardens and parks of towns.

– John Muir, *John of the Mountains: The Unpublished Journals of John Muir, 1938*

There has been a fundamental misconception that conservation means nothing but the husbanding of resources for future generations. There could be no more serious mistake. Conservation does mean provision for the future, but it means also and first of all the recognition of the right of the present generation to the fullest necessary use of all the resources with which this country is so abundantly blessed. Conservation demands the welfare of this generation first, and afterward the welfare of the generations to follow.

– Gifford Pinchot, *The Fight for Conservation, 1910*

on elevating these particular voices. Both recreational fishermen and businesses supporting the recreational fishing industry are potential stakeholders to engage in oceans protection.

There are, in fact, valuable opportunities to build relationships and allegiances based on particular situations. In California's Mt. Diablo Canyon, for example, a plan was made to conduct seismic testing on a nuclear power plant; however, a vocal constituency spoke out in opposition to the testing to protect fish populations in the local MPA. Because of these voices, the authority found an alternative way to test the power plant, creating a high-profile win-win that built bridges across the local resident, conservation and recreational fishing communities. In these cases, unique situations can provide opportunities for creative solutions and community building.

In other situations, groups who are already likely supporters—for instance, due to the nature of their community interests—could be actively engaged. These include the maritime heritage community, boat builders, diving community, spearfishing community, surfers, marine military forces, tribes and grassroots community efforts. Indeed, in some cases, these communities have already been involved in past marine protection efforts.

This brings us to a larger point: People care about the areas where they live or where they feel an attachment, and are compelled to fight to protect those areas. Instead of talking about “the oceans” generally, place-based arguments to garner support from new or underrepresented stakeholders may prove more compelling. Rare Conservation has used this approach to create community pride campaigns aimed at protecting heritage associated with place.

In approaching new stakeholders, conservation groups must be aware that compromising with ‘opposing’ stances might create divisions and factions within the conservation community. However, effort should be placed on demonstrating efficacy of specific compromises. Also, reaching out to diverse stakeholders has to be balanced with the priorities and competing loyalties of existing constituencies. In some cases, compromise may not be the right approach; sticking to a harder line may involve higher risks of failure, but would better ensure success in the long term.

A final group of stakeholders to be engaged further are policymakers—particularly state legislators—who are often poorly informed about ocean conservation issues. Marine policy training or other forms of policymaker capacity building would help these individuals to not only understand the issues better, but to become supporters of ocean conservation legislation in their states.

To effectively influence policymakers, the ocean community should make better use of lobbyists external to the environmentalist community who have a track record of influence on other issues. Not only should external lobbyists be used, but marine protection as a policy area should be taken out of the traditional conservation discussion and be introduced as a solution to issues such as national security, food security, women's rights and economic development, in addition to environmental sustainability.

VI. A RESILIENT COMMUNITY REQUIRES COORDINATION AND MUTUAL SUPPORT

Recognizing that the ocean conservation community currently does not respond cohesively to events, opportunities and information, nor does it evenly share information on issues, regions and government actions, we must look to opportunities to improve our strategies.

One suggested path for establishing systemic support mechanisms to overcome challenges as they arise includes changing the funder model into one that is more flexible for the NGO community. One way to do this could be developing funder requirements and allocating grant funding for immediate conservation needs and opportunities as they arise. Another way is to grant funds to NGOs so that they could create their own internal rapid response programs. The purpose of such activities would be to move toward industry analogs such as “war rooms” with rapid protection-response capability.

An additional method of creating a coordinated community is to identify a backbone organization to support the community of practice, taking a choreographing role like that played by the Resource Legacy Fund Foundation in establishing the California MLPA. An RLFF-type of backbone organization (comparable to a trade association) could enable regular meetings focused on individual regions, including roundtable meetings with peers working in similar areas.

It has also been suggested that the Capitol Hill Ocean Week, run by the National Marine Sanctuary Foundation, could be used, for example, as an opportunity to focus internally on goals within the community, including exchange of information and regionally specific and issue-specific network development.

By connecting on an ongoing basis with peers working toward similar issues (across funding sources) and celebrating its ongoing accomplishments, the ocean conservation community will both build the case for protection and build a stronger community.

EXISTING OPPORTUNITIES FOR THE OCEAN COMMUNITY TO SHARE INFORMATION

The ocean community has generated various tools for sharing information and communicating across the community. However, these tools require community input and use to be powerful. The tools below have been highlighted by members of the ocean conservation community as resources for sharing information, data and experiences from past marine protect efforts.

MPATLAS.ORG Developed by the Marine Conservation Institute and the Waitt Foundation, MPAtlas.org is an interactive online compilation of key information on the world's MPAs. This site engages user groups, managers and conservationists, and provides needed information and tools to the MPA community that will help advance marine conservation and facilitate analysis of future MPA opportunities.

OPENCHANNELS.ORG OpenChannels is designed to become a comprehensive source for news, guidance and community discussion on sustainable practices in ocean planning and management. The site aims to foster a vibrant online community of ocean planners and managers sharing experience, knowledge and advice with peers in order to speed the advancement of sustainable ocean management. OpenChannels is a project of Marine Affairs Research and Education and is supported by a grant from the Gordon and Betty Moore Foundation.

PROTECT PLANET OCEAN / PROTECTEDPLANET.NET Protectedplanet.net is the new face of the World Database on Protected Areas, a joint initiative between IUCN and UNEP-WCMC that was started 30 years ago as global list of national parks and that has evolved into the only global, spatially referenced information source on parks and protected areas. Protectedplanet.net allows the user to search in any language to find information about individual protected areas.

MPA NEWS MPA News, published by MARE, in association with the University of Washington School of Marine and Environmental Affairs, is an information and news service on planning and management of MPAs. It serves the global MPA community with news, views, analysis and tips gathered from experts around the world.

SEAWEB The focus of SeaWeb is on building communications capacity via promoting market-based and policy solutions by educating and mobilizing leaders in policy, science, business and nonprofits around common-sense solutions for a healthy ocean; sharing knowledge and issue expertise; conducting media campaigns that engage influential target audiences; and recruiting and training spokespeople to successfully promote strong ocean conservation policies and market-based solutions.

OPPORTUNITIES

The following ocean conservation opportunities were highlighted by the **Aspen Institute’s Ocean Community Study & Dialogue**, including input from the 2012 dialogue at Fort Baker, California, and two working studies on marine protection advocacy, policy and management (see Appendices I and II). The recommendations suggest possible opportunities for improving the effectiveness of collaboration among ocean conservation advocacy groups, funders and policymakers working on MPAs. They are not based on group consensus.

OPPORTUNITIES FOR ENHANCING OCEAN CONSERVATION COMMUNITY EFFECTIVENESS

STRENGTHEN COLLABORATION:

- 1. Endeavor to resolve the specific policy, advocacy and management differences that cause marine protection efforts to undermine each other in particular geographies and regimes, rather than seeking a unified vision or single solution.**

To date, the ocean conservation community has not established a shared vision statement for what the long-term goals of ocean conservation should be and has equally distinct opinions on what the tools should be to achieve these goals.

The community has difficulty creating and sustaining a shared oceans vision, partly due to the perceived generality or ambiguity of high-level vision statements such as achieving “healthy, productive, abundant oceans.” While some in the community choose to mitigate the effects of climate change and overfishing on the ocean, others point to trends like the significant part our oceans play in food security and the need for sustainable fishing as part of the global human economy. All factions tend to treat their decided theory of change as having greater legitimacy than the other—at best. At worst, there is a serious measure of derision afforded perceived forms of unacceptable ocean conservation.

The ocean conservation community should now shift the current conversation around MPA effectiveness away from the need for a shared vision statement and, instead, focus on addressing specific policy, advocacy and management differences that are actually causing marine protection efforts to undermine each other in particular geographies and regimes. Vigorously disagreeing—rather than agreeing to disagree—on things like whether the community should focus on large or small MPAs, can undermine successful initiatives and funding in both areas. There is a strong degree of exceptionalism and insularity within the community that too often divides progress on multiple fronts.

Instead of attempting to set shared goals—like the percent of the ocean to be brought under protection—or agreeing on what tools are best, the ocean conservation community should intentionally assess what behaviors associated with specific differences in opinion have been undermining the success of marine protection efforts and how to remove or avoid these obstacles.

As evidenced in the dialogue, a more functional dynamic is needed than currently exists between different ocean conservation advocates and between funders and expert groups or institutions. A more neutral convening framework and/or “backbone” organization was identified as one such possibility. Not all issues would benefit or find action potential through more effective collaboration, but a more concerted effort at path-clearing consilience is obviously warranted.

As the Aspen Institute Advocacy Planning and Evaluation Program study (see Appendix II) states, “The MPA community could agree to disagree on which definitions and goals are ‘right’ and instead determine where substantive disagreements are harming the cause—and focus on resolving only those disagreements.” In other words, can an organization focused on rights-based management work alongside a group focused on no-take MPAs in a coordinated manner for mutual benefit?

2. Identify and promote opportunities for strategic collaboration within the community to take advantage of potential synergies among conservation tools.

The ocean conservation community has expressed the need for developing more coordinated (i.e., better aligned), collaborative and strategic marine protection activities. The community should now assess ways in which MPAs can be used and aligned within a broader framework of marine conservation tools and ocean protection to create opportunities for all stakeholders involved.

To support this endeavor, the community requires a global assessment of ocean conservation needs and gaps on a geographic basis, followed by high-level prioritization of regional and national strategies based on the findings. Differences between institutions and their cultures or strategies can create challenges for the implementation of spatial management, but can be overcome by ensuring the complementarity of institutions’ efforts toward common prioritized objectives.

3. Focus on advocating collaboratively for ending unsustainable government subsidies for commercial fishing and creating systems to curtail illegal, unregulated and unreported fishing.

In terms of specific advocacy efforts that should take priority, there appears to be broad agreement within the ocean conservation community that fisheries subsidies are driving a large portion of global overfishing and, therefore, must be curtailed immediately. Past U.S. and international efforts to curb or end fisheries subsidies have stalled, yet resurrecting these efforts could make significant progress in the fight for marine protection. In addition to correcting outmoded subsidies that create perverse incentives and undesirable consequences is the need for systems to manage illegal, unregulated and unreported fishing (IUU). These political activities would greatly support the success of MPAs and should be implemented in concert with both MPAs (especially those with No Take Zones) and MSP.

IMPROVE COMMUNICATIONS:

4. Re-frame ocean conservation as a solution to issues such as national security, food security, women’s empowerment and economic development that are perceived as more broadly relevant.

It is important that the ocean conservation community reach out beyond the environmental community to work with strong lobbyists outside of the environment space who might not be particularly affiliated with the conservation movement, but who have expertise in working with business and government.

Not only should external lobbyists be used, but marine protection as a policy area should be taken out of the traditional conservation discussion and should be introduced as a solution to issues such as national security, food security, women’s rights and economic development, in addition to environmental sustainability. The ocean conservation community should endeavor to integrate ways to address these broad issues into their efforts, such as using cross-border MPAs to address poaching and illegal trafficking, pairing aquaculture with

MPAs to support food security, engaging local women's groups in management and developing value-added fishery products and new markets.

An estimated billion people are currently dependent on seafood as a primary source of protein, with coastal populations expected to increase. This trend, along with the growing effects of climate change on marine ecosystems, will add significant pressure to the health of fisheries. Therefore, the importance of maintaining healthy fisheries should be understood as not only a conservation priority, but also one for achieving environmental sustainability and continuing economic development.

5. Promote win-win opportunities and re-frame discussion about MPA “winners” and “losers.” MPAs have proven to be effective, and therefore MPA conservation objectives and socioeconomic objectives need not be mutually exclusive; however in many cases, the MPA community has not put forth win-win alternatives.

Define objectives clearly and examine social implications. The creation of an MPA can block human access to a fishery upon which local livelihoods depend, and, in other cases, protection could benefit only those in the relevant tourist industries. However, it is often possible for a combination of protection tools to benefit local fishing and tourist industries, while also protecting the fish and their ecosystems. The human factor and social impacts associated with MSP must be taken into account to increase the effectiveness of a protected area.

STRATEGIZE EFFORTS:

6. Designate an existing ocean conservation group to act as an information clearinghouse and independent organization that can help coordinate an MPA community of practice.

The ocean conservation space is in great need of an independent, backbone organization that can coordinate this community of practice. Until such an organizer role is established, the community should make better use of centralized information sources tracking current activities. Members of this community see great value in the potential for an ocean conservation community campaign coordinator that is similar to private industry war rooms.

During the California Marine Life Protection Act development process, funders used the Resources Legacy Fund Foundation as a funding consolidator, overarching campaign developer and coordinator. The current funders' Consultative Group on Biodiversity offers another example, and some have suggested that the IUCN could again be the effective campaign coordinator it once was.

It has also been suggested by some members of the conservation community that the CHOW, which draws a critical mass of core U.S. ocean policy and advocacy experts, be used for internal coordination of the community. This would provide the opportunity for various groups to exchange information and focus on improving NGOs' ability to work effectively with federal agencies.

Useful information on MPAs and other ocean conservation tools is viewed by some in the community as fragmented and difficult to access. These individuals have expressed the need for a new, centralized information management system to make knowledge sharing easier and more fruitful.

However, we recommend that the ocean conservation community make better use of existing tools, instead of aiming to replace them with entirely new tools. Creating effective information-sharing portals requires collaborative development and use across the community. Therefore, the community should explore and try to make better use of and build on existing projects such as the Gordon and Betty Moore Foundation's OpenChannels.org website. These online tools should be used to compile and share lessons learned, thereby helping to avoid repetition of past mistakes and, generally, to build strategic capacity in the community.

As part of this effort, the community should look to establish generally agreed-upon statistics and definitions for common terms to use in communications with policymakers and the general public.

For the ocean conservation community to realize the potential of these collective efforts, it should strive to identify and celebrate ongoing successes, while also looking for ways institutions can take conservation work to a new level of scale and impact.

7. Provide incentives for the use and development of collaborative, aligned and sustainable conservation initiatives.

The ocean conservation community acknowledges and has emphasized the incentivizing power of funders and the need for their increased involvement in making protection more effective by incentivizing cooperative behaviors and establishing new kinds of finance tools. To be effective, these collaborations between conservation proponents and funders must be sincere and mutually dependable. Funders have the opportunity to pursue several specific strategies that will better support alignment across the ocean community toward shared goals:

- create sustainable funding for community engagement in marine protection (see page 9);
- incentivize and reward collaborative and complementary institutional activities by deliberately integrating these priorities into grant-making guidelines and discussions; and
- create a rapid response fund for immediate or tactical conservation needs.

The traditional grant process limits the ability of NGOs to quickly react to new opportunities, threats and other needs. There appears to be broad support for the creation of a rapid-response fund designed specifically to address these needs.

BE INCLUSIVE:

8. Foster and elevate the voices of unorthodox stakeholders who support MPAs.

Building on conservation community discussions around stakeholder involvement as a tool for creating mutually beneficial marine conservation opportunities, the ocean community should now look to engage those not typically involved in the MPA building process. By engaging those often excluded from the conversation, especially through the establishment of MSP programs, the conservation community would enable stakeholders to benefit from the process and reduce opposition to No Take Zones.

Stakeholders in the U.S. whom the community has highlighted for engagement include small recreational fishing groups, who are seen as more conservation-oriented than the larger groups, and local chapters of the Recreational Fishing Alliance and Coastal Conservation Association (especially in Washington and Maryland, for example). All sympathetic and aligned voices—including the maritime heritage, boat building, diving, spearfishing, surfing, marine military forces, tribal, grassroots and business communities—should be elevated, and assessments should be made of opportunities for mutual benefit.

Local demand and support for conservation can come from a variety of sources, even while we must recognize that economic hardship, lack of economic opportunity and dependence on dwindling marine resources significantly limit potential support for conservation under business-as-usual. However, by engaging charismatic local leadership in these parallel challenges, MPAs will have a great opportunity to be nurtured at a local level.

The pro-conservation messaging to date is seen by many as ineffective at compelling behavior changes, as it may not reach important stakeholders who are unaware of the economic benefits of protection beyond conservation. By sharing within the community and then broadcasting compelling success stories in support of MPAs, those who have benefited from these initiatives, especially when they are local communities or fisherman, can become champions of conservation goals.

Only a few examples of success stories with human benefits and interests have been highlighted in most discussions so far, yet this is something that can be bolstered through intentional deliberation and discussion by the community. This community needs to improve its messaging to win the support of important stakeholders who may be either neutral or critical of MPAs so far. On this note, an interesting question arises: Can the inherent value of ocean life catalyze needed protection, without the human-centered purposes of the fish being discussed?

9. Provide training to community, political and business leaders to build a broad and well-informed set of spokespeople for ocean conservation.

Policymakers—particularly state legislators—are often poorly informed about ocean conservation issues. Marine policy training or other forms of policymaker capacity building would help these individuals to not only understand the issues better, but to become supporters of ocean conservation legislation in their states.

Training materials that may be particularly useful to policymakers include case studies of MPAs and other effective conservation tools, the biological science behind and challenge of managing fisheries, assessments from previous experiences where local communities were engaged in conservation, and examples of approaches adopted by various nations. In addition to education, to effectively influence policymakers, the ocean community should make better use of lobbyists external to the environmental community who have a track record of strong gumshoe influence on other issues.

CONCLUSION

Given the urgent and growing need for conserving the world’s biologically rich oceans in the face of human impact, a coordinated effort is needed across funders, conservation groups, business leaders and policymakers. But as the conservation community knows, coordination is no simple task. With this in mind, the Aspen Institute convened the ocean conservation community for an intentional review of efforts to date, to learn from past experiences and to move to the next stage of collaboration.

While this report has focused in part on the use of MPAs in ocean conservation, MPAs alone will be insufficient in bringing about oceans recovery. Yet when MPAs are used within the toolbox of marine conservation tools, the ocean community can overcome major obstacles to protection and create “enabling conditions” that allow for recognizable progress.

While one might expect external opposition to be the greatest obstacle to success, disagreement within the ocean community can be an equally potent obstacle. An active debate is a healthy part of any movement, yet these discussions should not be allowed to diminish the clarity of the community’s goals or faith in the efficacy of conservation tools. Therefore, the conservation community should focus not on determining the superiority of various conservation approaches, but, rather, on the applicability of these approaches to various regions with distinct needs.

In using any conservation tools, success will depend upon the establishment of sustainable funding, involvement of authorities with mandates to implement marine protection, engagement of local leaders and other stakeholders, and matching the size of protection projects to available funding. Before these projects are undertaken, desired outcomes (and perhaps side effects) should be defined. The community would benefit from clarifying both the social and environmental implications of their chosen activities, and how demand for both marine protection and access to fisheries will be met.

As conservation successes are created, the community should partake in jointly celebrating each of these victories, however small or large. As the community tests new methods, we learn where MPAs and other tools are more or less effective and how they can be integrated into overall management of our oceans and coasts. In each case, there is an opportunity and need to both mark these accomplishments and build on lessons learned.

Planning ahead, conservation advocates should build their strategies upon long-term conservation goals, as well as the social and political contexts in which the tools will be implemented. For example, by engaging opposition groups along the way, the conservation community can gradually gain their support and establish greater public and institutional acceptance. In shifting away from a focus on creating a single vision or method of conservation, the ocean community would benefit from placing its priorities within the context of larger policy goals. By focusing on the opportunities highlighted in this report, the ocean community has the chance to create a more collaborative, cohesive, coherent—and thereby more effective—strategy for achieving ocean conservation on a global scale.

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APPENDIX I:

ENABLING CONDITIONS AND OUTSTANDING CHALLENGES IN MARINE PROTECTION AND MANAGEMENT

**A discussion paper prepared for the December 2012
Aspen Ocean Community Dialogue: Advocacy, Strategy, and Policy**



LINWOOD PENDLETON AND MICHELLE LOTKER

Enabling Conditions and Outstanding Challenges in Marine Protection and Management

Linwood Pendleton, Nicholas Institute for Environmental Policy Solutions, Duke University
Michelle Lotker, Consultant

Introduction

Spatial management of marine areas continues to expand around the world as a viable means of reducing human impacts on marine ecosystems. Spatial management, including but not limited to marine protected areas (MPAs), is now promoted and implemented at the local, state (regional), national, and even multi-national and international level. Environmental NGOs, philanthropic organizations, governments, and multi-national bodies maintain programs and agencies devoted exclusively to the identification, development, and implementation of spatially managed marine areas, especially MPAs. As the science and practice of spatially based marine protection has grown, so too have the many ways in which spatial management can be harnessed to better manage marine ecosystems.

Despite the demonstrated ecological and social benefits of certain applications of marine spatial management, serious challenges remain. Lack of stakeholder buy-in, insufficient or unsustainable funding, ineffective enforcement, inappropriate governance or regulatory design, and unanticipated changes in external environmental stressors can reduce the efficacy of a spatially managed marine area.

This report, prepared in support of and at the direction of the Aspen Ocean Community Dialogue, explores challenges to the design and successful implementation of marine managed areas, especially protected areas. It does not compare the effectiveness of spatial marine management to other forms of management, describe the virtues or failures of the spatial management of marine systems, or comprehensively review the literature. Instead, it identifies, on the basis of the literature and talks with experts, those challenges that can be addressed through better cooperation and dialogue among the key institutions and individuals who affect and are affected by spatially explicit marine management¹.

To illustrate important opportunities and challenges to spatial marine management, the report focuses on a sub-class of spatial management that in some way restricts fishing effort, even if fisheries management is not an explicitly desired outcome. Such management can vary from a total ban on all human incursion to prohibitions on types of species fished and extraction methods, to restrictions on who can fish (e.g., territorial user rights fisheries, or TURFS, and limited access permit programs, or LAPPs), to temporal fishery closures. The report provides examples from the literature about no-take zones, but its conclusions apply, in varying degrees, to all types of spatial management that restrict fishing effort.

A note on marine protected area (MPA): This term means different things to different people. Nevertheless, it is often the term of choice when experts discuss spatially managed marine areas. Therefore, this report refers to spatially managed areas as marine protected areas, while acknowledging the great variation in MPA characteristics and goals.

Questions and statements aimed at spurring discussion appear at the end of each section of the report.

1. "All research and reporting that comprise the Aspen Institute Ocean Community Study & Dialogue follow the Institute's time-honored approach to intentional, value-based dialogue, adhering to a strict not-for-attribution rule throughout the duration of the dialogue and preceding interviews and scoping meetings. Participating individuals may be listed for identification purposes only – they are not responsible for, nor do they or their organizations endorse, narratives, conjectures or any errors in resulting output, including pre-dialogue studies, dialogue readings and post-dialogue reports."

Defining Marine Protection

Marine protected areas (MPAs) appear to be the most common type of spatial management in marine areas. As of 2010, 5,878 MPAs covered more than 4.2 million km² of ocean (1.17% of the global ocean surface) (Toropova et al. 2010). MPAs differ in goals, outcomes, and intended level of protection. The Congressional Research Service (CRS 2010) finds that MPAs generally include three criteria: “(1) geographically defined and bounded places; (2) approaches that manage systems rather than individual resources or species; and (3) programs that take a long-term perspective on resource management.” Nevertheless, President Clinton’s Executive Order on Marine Protected Areas follows the 1994 MPA definition of the International Union for the Conservation of Nature (IUCN): “any area of the marine environment that has been reserved by Federal, State, territorial, tribal or local laws or regulations to provide lasting protection for part or all of the natural and cultural resources therein” (E.O. 13158). This broader definition, which makes no reference to adequate enforcement or monitoring, allows for large areas to be designated MPAs without requiring any meaningful impact on human uses, a phenomenon that creates so-called paper parks.

The IUCN (1994) identifies six categories of marine protection, all of which tend to be called MPAs in public discourse. These categories have familiar names: strict nature reserve/wilderness area, national park, national monument, habitat species management area, protected landscape/seascape, and managed resource protected area. But the exact definition of MPA categories can vary across jurisdictions, leading to competing goals and approaches. An MPA may protect a single species or an entire ecosystem. It may limit some human use or all human use.

Some practitioners have quite narrow interpretations of MPAs. Ameer Abdullah argues that only no-take marine reserves should be called MPAs and that to label anything with lesser restrictions an MPA will “mislead and misdirect national and international conservation efforts looking to invest in real (no-take) protection in the seas and oceans.”²

Many fisheries management actions include spatial components. Fishing closures date back hundreds or even thousands of years ago to marine tenure and taboo systems in traditional cultures (Fogarty and Murawski 2004; Greenberg 2007). Today, nearly all fisheries management regimes, whether carried out by local, state, national, or regional fisheries management organizations, use closed areas as a management tool. For instance, spatial closures within commercial fishing areas were recently implemented in the South Atlantic Regional Marine Fisheries Management area. Spatial closures also are proposed for large areas of the high seas to protect pelagic species (Harley and Suter 2007; Sibert, Senina, and Lehodey 2011).

Spatial marine management areas that directly address a fisheries management goal tend to have regulations and restrictions that protect one commercial fish species or species group (e.g., rockfish) or that ban a specific activity. For example, a spatial fisheries management policy may ban lobster traps in an area but have no regulations regarding hook and line fishing. Application of the term MPA to areas that enforce only limited, fisheries-focused resource protection can be controversial. Given growing interest in ecosystem-based management, institutions that wish to create spatially managed marine fisheries are leaning toward protecting entire ecosystems within an area rather than focusing on a single species or activity.

A subset of spatial fisheries management tools that give limited rights to certain users have been discussed in conjunction with MPAs. Limited access privilege programs (LAPPs) can include spatially defined LAPPs known as territorial user right fisheries (TURFs), which reflect “property-rights based approaches to fisheries management” (Carden 2011). In a TURF, a spatial property right to a portion of the sea floor is allocated to “a limited number of individuals” with exclusive harvesting rights to one or more species of interest on (or in the water column overlaying) the designated spatial area (Carden 2011). Self-organization of individuals and groups within TURFs varies (see González et al. 2006 for information on the TURF system in Chile).

Given lack of consensus on the proper terminology for spatial marine management tools, this report uses the broadest possible definition in referring to MPAs.

2. <http://openchannels.org/blog/ameerabdulla/when-mpa-not-mpa-case-against-advocating-mpa-networks>

MUST MPAs BE HABITAT FOCUSED?

MUST ANYTHING REFERRED TO AS “MARINE PROTECTION” ENTAIL ENFORCEMENT?

IF IT REQUIRES NO CHANGE IN HUMAN BEHAVIOR, CAN A TOOL BE REFERRED TO AS MARINE MANAGEMENT/ PROTECTION?

Defining Effectiveness

Measures of effectiveness are as varied as the definitions, objectives, and goals of marine protection. In general terms, effectiveness relates to the goals set forth by the MPA. In more specific terms, effectiveness relates to quantification. Some measures of MPA effectiveness are based solely on impact on ecology and biodiversity (Mora et al. 2006; Selig and Bruno 2010; Solano-Fernández et al. 2012). Other measures include fishery productivity in addition to overall ecosystem health and species conservation (Buxton et al. 2006; McDaniel 2007).

Several studies have rated MPA effectiveness on the basis of whether the MPA met stakeholder-defined parameters of success. Dahl-Tacconi et al. (2005) compared stakeholder priorities at two sites in Indonesia. At one site, stakeholders defined success “in terms of appropriate management processes” and the objectives set by the park (both ecological and economic); at the other site, the primary objectives included ecology, increased local awareness, regional promotion, donor assistance, and planning and management. In an evaluation of community-based MPAs, Pajaro (2010) defined effectiveness as achieving the ecological, socio-economic, and governance objectives outlined during the planning process.

Table 1. Examples of effectiveness measures in literature

Effectiveness Measures	References
Biological Measures	
Fish Abundance	Selig and Bruno 2010; McDaniel 2007; Buxton et al. 2006; Fogarty and Murawski 2004; Harrison et al. 2012
Fish Size/Biomass	Fogarty and Murawski 2004; Harrison et al. 2012
Biodiversity	Mora et al. 2006; Solano-Fernández et al. 2012
Ecosystem Health	Fogarty and Murawski 2004; Buxton et al. 2006
Spillover	Fogarty and Murawski 2004; Harrison et al. 2012
Social Measures	
Increased Income/Fishery Productivity	McDaniel 2007; Buxton et al. 2006; Fogarty and Murawski 2004.; Rassweiler, Costello, and Siegel 2012
Stakeholder Satisfaction	Dahl-Tacconi et al. 2005
Achieved Defined Objectives	Pajaro 2010
Political Measures	
Regulations	Maypa et al. 2012
Enforcement	Maypa et al. 2012

MPA effectiveness also has been judged by examining whether a protected area meets multiple objectives, such as conserving biological diversity and ecological health while also creating economic opportunities and satisfying the needs of local populations (Angulo-Valdes 2005; Maypa et al. 2012; Pomeroy et al. 2005). Finally, some MPA rating systems evaluate MPAs on management effectiveness alone, allowing for a broad definition of what makes an “effective” MPA (Maypa et al. 2012).

TRUE OR FALSE:

AN MPA THAT IMPROVES HUMAN WELLBEING MAY NOT BE A SUCCESS.

AN MPA THAT DOES NOT IMPROVE HUMAN WELLBEING MAY NOT BE A FAILURE.

Integration

A key challenge to the success of an MPA is making sure it fits within a larger social, ecological, and environmental context.

People, fish, and other biological and physical elements move in and out of MPAs. Perhaps the greatest challenge for MPAs is to make sure the policies and consequences of spatial marine management are well coordinated with other forms of management within the defined area. This integration can facilitate achievement of objectives in the managed area, allow the area to contribute to the success of the greater management system of which it is a part, or both.

MPAs work best when designed as complements to other management tools (Sumaila 2002; CEA 2012; Agardy, Christie, and Nixon 2012). Fogarty and Murawski (2004) highlight the successful integration of MPAs and other management measures as the key to species and stock recovery in the Georges Bank fishery. In the context of the broadest possible use of spatial management tools—i.e., marine spatial planning (MSP)—a global survey of planning and management indicates that MSP works best when built on existing (and accepted) management regimes such as land use planning and coastal management and when complemented by non-spatial management such as fisheries regulation, International Maritime Organization and other regulations, including those related to shipping and pollution control (Agardy, Christie, and Nixon 2012).

Integration With Fisheries Management

Because so many instances of spatial marine management affect the extraction of living resources, the need to better coordinate MPAs with existing fisheries management is cited frequently in the literature and in discussions with experts undertaken for this report.

The goals of marine protection may not be exclusively fisheries oriented, but MPAs that restrict fishing will almost certainly have some impact on fisheries outcomes (e.g., harvest levels, catch per unit effort, cost). Although marine protection, especially reserves, may benefit fisheries in the long run, it does not benefit a fishery's yield unless individuals from the reserve area are exported to fished populations outside the reserve (DeMartini 1993), either through adult spillover (Russ and Alcala 1996) or young spawned from adults in the reserve (Tremblay et al. 1994; Murawski et al. 2000; Gaines, Gaylord, and Largier 2003). Although increases in biomass abundance within reserves are well documented, spillover from marine reserves into surrounding areas and fisheries “has not been demonstrated to the same degree” (Ward, Heinemann, and Evans 2001). “Putting all the eggs in the marine reserves basket and banking on spillover is much like single species fisheries management, in which the lack of a comprehensive or holistic approach doom many fisheries management efforts to failure” (Agardy, Notarbartolo di Sciara, and Christie 2011). Nevertheless, recent work shows that spatial fisheries management should, in theory, have the potential to increase fishery profits (Rassweiler, Costello, and Siegel 2012). New DNA evidence from Australia also supports the idea that marine reserves can promote sustainable fisheries (Harrison et al. 2012).

A recent report by California Environmental Associates (2012) highlights some of the difficulties associated with the global expansion of MPA use in marine management. For example, the seascapes effort in the Coral Triangle “requires more than \$10 million dollars in investments each year, while the broader fishery context in the region continues to deteriorate.” The report recommends that the conservation community “move from a ‘pure play’ MPA focus in biodiversity hotspots towards systemic change in fishery policy,” combining “basic input controls with well-established Community Based Fisheries Management approaches—especially those blending no-take reserves (essentially MPAs) with territorial use rights, at an appropriate scale.” The authors stress the need for creating policy reform at the local, national, and global level and for aligning economic incentives for sustainable seafood through market pressure.

In some cases, MPAs may negatively complicate existing fisheries management. Hilborn, Micheli, and De Leo (2006) find that marine protection may particularly affect fisheries that are already regulated by restrictions on total allowable catch if catch limits are not adjusted to match the reduction in accessible fish population. Spatial management that restricts local fishing effort can displace that effort elsewhere, potentially resulting not only in higher takes of targeted stocks outside of managed areas (especially no-take areas), but also leading to increased efforts in other stocks and fisheries (Agardy, Notarbartolo di Sciara, and Christie 2011). Crowder et al. (2000) demonstrate that when the fishing effort and harvest are restricted in a population sink, that effort is displaced to areas that serve as sources for the protected fish stocks. Perversely, spatial management that increases abundance (especially through spillover) can also increase, and concentrate, fishing effort along the edge of the reserve, a phenomenon sometimes known as “fishing the line”. This effect can be even more pronounced in those parts of a protected or managed area that remain designated for fishing, for example, buffer zones (Stelzenmüller, Maynou, and Martín 2007).

In this case, the broader the scope of spatial management, the greater the opportunity to effectively deal with displacement (Agardy 2010). Even highly mobile species can experience the negative effects of displacement if they enjoy limited protection within a reserve but are caught at increased rates just outside the reserve boundaries (Baum et al. 2003). Success or failure also has a lot to do with the dynamics of the target species or fishery. For instance, a report from the August 2012 International Seafood Sustainability Foundation (ISSF) workshop found that, alone, MPAs are insufficient to effectively manage mobile pelagic species like tuna (Davies et al. 2012).

IS THE CONSERVATION COMMUNITY RELUCTANT TO DISCUSS THE POTENTIAL NEGATIVE IMPACTS OF SPATIAL MANAGEMENT?

Integration of MPAs With Environmental Management

The literature indicates that marine protected areas often are not well integrated with other existing (or needed) forms of environmental management. Climate change, water pollution, sediment management, and other environmental factors play an important role in the ecological success of marine protected areas. In most cases, these other factors are managed by agencies or social units distinct from those charged with managing marine areas. Similarly, the human activities that affect the biological and social effectiveness of marine protected areas extend well beyond the activities of people who directly extract or damage living resources within these areas (e.g., land-based polluters, shippers, the military).

Marine protected areas often are “islands of protection” that can be negatively affected by the degradation of surrounding ecosystems by toxic pollution and eutrophication, noise pollution, and habitat loss as well as by processes happening far from the coast, such as sediment starvation in estuaries caused by diversion of freshwater from watersheds to supply agriculture. Many researchers have found that marine protected areas and other local management measures cannot alone protect ecosystems from the damaging effects of human activity (Mumby and Steneck 2008; Elklöf et al. 2009, Lester et al. 2009). Impacts from surrounding areas must also be managed. Agardy, Notarbartolo di Sciara, and Christie (2011) cite Buck Island National Park and the Great Barrier Reef Marine Park as places where careful marine protection has been compromised by lack of capacity to deal with factors that originate beyond marine management boundaries. Factors beyond the control of managers, including crown-of-thorns starfish outbreaks and mass coral bleaching due to increasing seawater temperatures, terrestrial runoff, cyclones, and coral disease, have decreased coral cover within the boundaries of the Great Barrier Marine Park by 50.7% over 27 years (De’ath et al. 2012).

IF THE NEIGHBORHOOD IS IN DECLINE, DOES IT MATTER HOW WELL YOU TEND YOUR HOUSE?

Top Down or Bottom Up: Matching National and International Efforts With Local Needs

The vision, funding, drive, and legal mandate to create marine protected areas increasingly come from “the top.” International goals for marine protection have been set by treaty and consensus; for instance, in 2000, the U.S. Coral Reef Task Force set a goal of protecting 20% of “all coral reefs and associated habitat types in each major island group and Florida” by 2010 (USCRTF 2000), a goal supported by the research of Bohnsack et al. (2000). In 2003, the World Parks Congress (WPC) called for 20-30% global ocean coverage by MPAs by 2012, and in 2006, the Convention on Biological Diversity (CBD) called for 10% global ocean coverage by MPAs by 2010 (Wood et al. 2008). Today, the CBD’s 10% global goal continues to drive marine conservation efforts, while the more ambitious 20% goal has been adopted by many programs and nations (beginning with the United States and followed by Australia, the Bahamas, Canada, the Galapagos Islands, and the Philippines) (see Table 2).

Table 2. Examples of national target relating to MPA networks (UNEP-WCMC 2008)

Country	Targets
American Samoa	20% of reefs to be protected as no-take areas by 2010
Australia - South Australia	19 MPAs by 2010
Bahamas	20% of the marine ecosystem to be fully protected (no-take) for fisheries replenishment; 20% of marine and coastal habitats to be protected by 2020 (Caribbean Challenge)
Belize	20% of all bioregions; 30% of reefs; 60% of turtle nesting sites; 30% of manatee distribution; 60% of American crocodile nesting; 80% of spawning aggregations
Brazil	20% of all bioregions; 30% of reefs; 60% of turtle nesting sites; 30% of manatee distribution; 60% of American crocodile nesting; 80% of spawning aggregations
Chile	10% marine area protected by 2010; national marine network of conservation and management sites by 2015

Country	Targets
Colombia – San Andres Archipelago	Seaflower MPA, 2000 km ² to be no-take
Cuba	22% of continental shelf protected (14,678 km ²), including: 15% of insular shelf, 25% of coral reef areas and 25% of each subtype of wetland
Dominican Republic	20% of marine and coastal habitats to be protected by 2020 (Caribbean Challenge)
Fed States of Micronesia	30% of near shore marine ecosystems protected by 2020 (Micronesia Challenge)
Fiji	30% of reefs protected by 2015; 30% of waters managed as an MPA network by 2020
Germany	38% of waters as MPAs
Grenada	25% near shore marine resources protected by 2020 (Caribbean Challenge)
Guam	30% near shore marine ecosystems protected by 2020 (Micronesia Challenge)
Indonesia	100,000 km ² protected by 2010; 200,000 km ² protected by 2020
Jamaica	20% of marine and coastal habitats to be protected by 2020 (Caribbean Challenge)
Madagascar	100,000 km ² marine waters protected by 2012
Marshall Islands	30% of near shore marine ecosystems protected by 2020 (Micronesia Challenge)
New Zealand	10% of marine environment protected by 2010
Northern Marianas	30% of near shore marine ecosystems protected by 2020 (Micronesia Challenge)
Palau	30% of near shore marine ecosystems protected by 2020 (Micronesia Challenge)
Peru	Representative MPA system to be established by 2015
Philippines	10% fully protected (no-take) by 2020
Senegal	Creation of an MPA network
St Vincent and Grenadines	20% of marine and coastal habitats to be protected by 2020 (Caribbean Challenge)
Tanzania	10% of sea protected by 2010; 20% of sea by 2025
United Kingdom	Network of Marine Conservation Zones (MCZs) to be established by 2020
USA - Central California	29 MPAs covering 18% of state coastal waters (528 km ²), with 243 km ² as no-take areas

The authority to create MPAs has been vested increasingly in state, regional, national, and international governmental agencies and organizations (e.g., the OSPAR Commission). Given the move toward centralization of its funding and authority, marine management must be tailored to local conditions. Accordingly, MPAs increasingly reflect the needs of local stakeholders, who must “buy in” to the design and implementation process if management policies are to be effective³ (Agardy et al. 2003; Agardy, Notarbartolo di Sciara, and Christie 2011; Pollnac and Tarsila 2011). Marine protection that is initiated from above can lead local users to feel that restrictions on use are being imposed by outsiders who do not share information on how the local community may benefit (Jones, Qiu, and De Santo 2011; Agardy, Notarbartolo di Sciara, and Christie 2011). Lack of public trust makes it difficult for management agencies and conservationists to designate MPAs (Agardy et al. 2003; Hilborn et al. 2004, Agardy, Notarbartolo di Sciara, and Christie 2011), or to undertake marine spatial planning (Agardy, Christie, and Nixon 2012).

Transparency During the Planning Process

“The key to success and broad acceptance, whether for multiple use MPAs or no-take reserves, is a clear articulation of the management problem that the MPA is meant to solve. Such objective setting should be done with scientists working in concert with local communities, user groups, and management authorities—not by scientists in isolation.”—Agardy et al. (2003)

Establishing best practices for and consistent approaches to marine protection is important, but the exact approach at each site will vary along many dimensions, including national policy, culture, ecosystem, and scale. A challenge to all marine protection is tailoring the emerging science of marine management to the local heterogeneity that characterizes human-influenced ecosystems (Agardy 2000; Hughes et al. 2005). Failure to understand local stakeholder needs and behavior can also impair enforcement of MPA policies (see, e.g., Guidetti et al. 2008).

Recognizing the ecological interconnectedness of marine ecosystems, MPA practitioners have started to manage large networks of marine protected areas and even to include in them areas beyond national jurisdiction (ABNJ) (Agardy et al. 2003; CRS 2010; Cole, Ortiz, and Schwarte 2012). These networks of MPAs may provide broad integration and coordination with increased local input and control. Still, only half of the world’s MPAs are in networks (Wood et al. 2008).

Enabling Conditions

Scientists and practitioners increasingly recognize that the success of MPAs depends on legislative, institutional, social, and economic factors that are largely beyond the control of local managers or even implementing agencies. MPA enabling

3. One interviewee cited the Australian Great Barrier Reef Marine Park process as a particularly good example of design to meet local stakeholder needs.

conditions and challenges most often noted in the literature and by interviewees for this report are described below.

Who Wants Marine Protection?

Despite growing global demand for marine protection, its beneficiaries tend to be less organized, vocal, and politically powerful than those who favor other forms of marine management or eschew marine management altogether (e.g., the National Ocean Policy Coalition, some recreational fisheries organizations, and certain fisheries lobby groups). Part of the imbalance, no doubt, results from the uneven distribution of costs and benefits among those involved. Benefits are low on a per stakeholder basis, but the number of beneficiaries is large. Conversely, the costs of marine management are often perceived to be high and immediate by extractive users, whereas many of the benefits are likely to come in the future.⁴ To complicate matters, it may be difficult to ensure that stakeholders who suffer hardship due to spatial restrictions will have access to those benefits. This may be the case when outside fishers exploit protected areas that effectively constrain local users. In addition to better enforcement generally, the specific assignment of property rights through marine extractive reserves (e.g., Abrolhos Extractive Reserve in Bahia, Brazil), TURFS, and LAPPS may help to secure short-term and long-term benefits for a specific group of fishers.

Enabling Conditions for MPAs on the U.S. West Coast

The Marine Life Protection Act (MLPA) initiative in 1999 required creation of a statewide network of existing MPAs in California. Fox et al. (2012) identified six conditions that facilitated the successful redesign of the state's MPA system:

- a strong legal mandate, which provided guidance and flexibility;
- political support and leadership, which enabled political challenges and opposition to be overcome;
- adequate funding, which ensured sufficient staff support and facilitated innovative approaches to a public MPA network planning process;
- an aggressive timeline with firm deadlines which propelled the process forward;
- willingness of civil society to engagement, which provided for better informed and broadly supported outcomes; and
- an effective and transparent process design, which optimized contributions from stakeholders, scientists, and policy makers.

These enabling conditions allowed the MLPA initiative to avoid problems resulting in process delays and less than full achievement of process objectives.

A strong, local demand for better marine management improves the prospects for a successful marine protected area. The literature gives little attention to the origins of demand for marine protection, but prospects for marine management appear greatest in those areas where

- strong, effective local community leadership exists (e.g. Cabo Pulmo, Florida Keys National Marine Sanctuary, see Aburto-Oropeza et al. 2011);
- marine-dependent economies and communities have fallen on hard economic times;
- local fisheries economies have collapsed with little hope for a rapid recovery;
- few economic opportunities exist;
- there's a reasonable hope that marine management would lead to influxes of new government funds and international funds, including those through foreign aid and multi-national organizations (e.g. the United Nations Environment Program and World Bank), as well as to the growth or development of marine-related businesses and opportunities (including alternatives to extractive use); and
- local resistance is low and non-local demand is high.

CAN THE MARINE CONSERVATION COMMUNITY BE MORE PROACTIVE IN IDENTIFYING, EMPOWERING, AND CREATING EFFECTIVE LOCAL LEADERS?

4. See Carden (2011), for a discussion of intergenerational equity, the public trust doctrine, and limited access permit programs, like TURFS.

Recreational Fishing and Marine Management in the United States

In the United States, opposition to marine protection and spatial management has come from many corners of society, including home builders, the petroleum industry, and even “small government” politicians. No sector, however, has generated as much organized opposition to spatial management (or consternation among spatial management proponents) as the recreational fishing community. The reasons for such strong and coordinated opposition include a perceived lack of direct benefits from marine management, a historic lack of regulation in marine recreational fisheries, a culture of open access, a distrust of the processes through which marine protection and spatial management have been implemented to date, and a general disdain for government intervention. The ardent opposition to marine spatial management by select recreational fishing organizations has led some organizations to look for other opportunities to catalyze marine protection (e.g., in other countries). Other organizations have launched programs and initiatives to more directly engage recreational fishers in protecting what they value. Yet other organizations are working on ways to ensure that recreational fishermen enjoy the potential benefits that come from marine protection.

Many experts interviewed for this report cited previous or impending environmental decline as a key factor in increasing the likelihood of marine protection. Environmental disasters or spectacular management failures may also serve as enabling conditions for marine protection. One expert noted that the 1969 oil spills in Santa Barbara, California, were an important, if unrecognized, factor in generating momentum for the expansion of the Channel Islands National Monument, which later gave rise to the Channel Islands National Park and Marine Sanctuaries. The crash of fisheries in Georges Bank helped encourage fisheries closure areas there and may have, along with the demise of the Northern Right Whale, contributed to the establishment of the Stellwagen Bank National Marine Sanctuary.

Interviewees also noted that low resistance to marine management can increase the likelihood of such management. Resistance tends to be low in areas characterized by a general lack of human use or attachment to place (e.g., the northwest Hawaiian Islands and the Antarctic waters managed by the Commission for the Conservation of Antarctic Marine Living Resources⁵). Others cited substitute opportunities for recreational fishing and alternative sources of seafood as enabling conditions. For example, the inexpensiveness of fish from the South Pacific and Asia reduces resistance to large-scale marine protection in Australia.

Marine protection that is accompanied by direct incentives or promises of large local investments may also be more likely in places where other sources of income are limited. In the Phoenix Islands and in Caravelas, Brazil, the MPA-related income offered by international conservation groups helped to offset the revenues forgone by limiting fishing. Similar enabling conditions are being created at the local level through the provision of conservation incentive agreements.

Finally, MPAs may be enabled when local stakeholders believe that they will be given the opportunity to replace distant, uninvolved government management of marine areas with local control. This opportunity has led to establishment of community-based MPAs in the Philippines, locally managed marine areas (LMMAs) throughout the Pacific region, and biosphere reserves in sub-Saharan Africa (Agardy 2010). Several interviewees indicated that a desire for more stringent, but locally controlled, marine protection could be expected in places where traditional forms of management (e.g., fisheries) were seen to be ineffective or non-existent.

ENVIRONMENTAL DECLINE ENABLES MARINE PROTECTION.

Outstanding Challenges

Some conditions may seriously constrain the effective implementation of spatial marine management. The Pelagos Marine Mammal Sanctuary was championed by a charismatic figure (Prince Ranier), had a sound legal framework, and was informed by scientific information. But as Agardy, Notarbartolo di Sciara, and Christie (2011) noted, “political considerations (e.g., ensuring that the territorial waters included within the Sanctuary were equitably subdivided between Italy and France) prevailed over ecological considerations (i.e., encompassing within the sanctuary cetacean critical habitat appropriately),” resulting in less than ideal coverage of important cetacean habitat. Interviewees identified many additional

5. But see the recent disagreement between the United States and New Zealand about new proposed marine protected areas in the CCAMLR zone (MPA News 2012). Talks regarding MPAs in the zone broke down November 2, 2012. See <http://www.reuters.com/article/2012/11/01/us-antarctica-idUSBRE8A00N620121101>.

challenges that may prevent the effective implementation of MPAs and other forms of marine spatial management.

Competing Authority and Mandates

Marine areas are managed under the authority of many different laws and institutions. Poorly aligned or uncoordinated statutes and institutional mandates can lead to conflicts in jurisdiction over the different ecological, organismal, and human components of marine ecosystems. Authority to manage different components of a marine area may be vested in multiple agencies, a problem at all governance levels and spatial scales. Regional fisheries management organizations may exert authority over fish populations that swim above habitats regulated by the International Seabed Authority; organisms within the water column may be subject to the aspirations of the Convention on Biodiversity. Within the United States, authority to manage MPAs lies with the departments of Interior and Commerce and with a variety of offices within each department. Each of these institutions brings with it perspectives, cultures, goals, and mandates that may be in direct or indirect conflict. Often, neither treaty nor law compels these institutions to consult with one another, even when their actions clearly influence the outcome of actions taken by peer institutions. For instance, the Bureau of Ocean Energy and Management can designate a drill rig site and restrict access to the area without consulting marine fisheries management councils or the National Oceanic and Atmospheric Administration. A report by the Congressional Research Service identifies eight statutes that give two federal agencies the right to establish some sort of marine protected area in federal waters (CRS 2010).

Legislation that endows these agencies with authority over parts of the marine and human ecosystem may fail to specify clearly how authority should be shared or coordinated. In other cases, legislation has the potential to create conflict. For instance, the National Marine Sanctuaries Act has no direct fisheries management authority but does have authority to enact policies that will have a direct effect on fisheries (e.g., creation of no-take reserves). Statutes like the Magnuson-Stevens Act and the Marine Sanctuaries Act differ in the general nature of the outcomes expressed in the establishing legislation. Magnuson-Stevens focuses on managing fisheries for extractive values, whereas the Marine Sanctuaries Act often is interpreted as making protection of special places and the species within them paramount.

In nearly all cases, authority to enact marine protection has been established “in addition” to other types of existing authority (e.g., fisheries management legislation or agencies and minerals management). Unless legislation specifically addresses the ways in which marine protection complements the existing authority, MPA agencies often are the weaker peers in the mix. This consideration prompted several interviewees for this report to emphasize the advantages of pursuing marine protection through existing authorities or processes rather than creating new processes, *de novo*.

A WELL-DEVELOPED SYSTEM OF ENVIRONMENTAL AND FISHERIES LAW CAN MAKE MARINE PROTECTION MORE CHALLENGING.

Institutional Culture Clash

The institutional culture of marine protection agencies, and the culture of those they serve and regulate, can play an important role in the degree to which marine protection can be effectively integrated into and coordinated with other types of management. Agencies differ in the degree to which they incorporate stakeholders, listen to stakeholder needs, and have a local presence. These institutions also differ in their fundamental goals (e.g., species protection, economic productivity, fisheries yield, social wellbeing, community stability). The same is true for international bodies and environmental nongovernmental organizations. These institutional differences can hamper cooperation.

According to several interviewees, institutional approaches and culture can be overcome if there is a process to carefully articulate desired outcomes and find opportunities for institutional complementarity. For instance, marine protection authorities (e.g., the National Marine Sanctuary Program) can provide a line of communication to stakeholders that may not be readily available to other, more centralized partners (e.g., the Bureau of Ocean Energy and Management). In the Channel Islands, a partnership with the extant National Park Service allowed the National Marine Sanctuaries Program to connect with local stakeholders while the sanctuary staff was being assembled. At the regional level, within the United States, marine fisheries management councils bring together a variety of institutions with the common goal of managing fisheries. In multi-national and international contexts, institutional cultures and the personalities

of organization leaders can facilitate or offer a challenge to cooperation among regional fisheries organizations and multi-national efforts to protect marine biodiversity through marine protected areas. Some interviewees noted that new marine spatial management efforts undertaken by international and “regional seas” forms of governance were often hindered by signatory countries’ cumbersome processes and competing interests.

CAN A PROCESS TO CAREFULLY ARTICULATE DESIRED OUTCOMES AND IDENTIFY OPPORTUNITIES OVERCOME DIFFERENCES IN INSTITUTIONAL APPROACHES AND CULTURE?

Too Big, Too Fast, Too Little Protection

The health of ocean ecosystems is in decline (Halpern et al. 2012). The ocean conservation community’s general sense of urgency is apparent in recent consensus statements about how much of Earth’s oceans should be protected and how fast the protection must be implemented. As noted above, a general goal to protect 20% of total ocean surface has taken root in marine conservation and management circles (Bohnsack et al. 2000; Agardy et al. 2003; Fogarty and Murawski 2004).

Several interviewees cited both the urgency and magnitude of marine protection goals as a motivating factor for creation of large marine protected areas. Although the spatial extent of marine protected areas has increased at a rate of 4.6% per year over the last two decades, it totals less than 1% of global marine area, suggesting that small MPAs may be insufficient to achieve global protection goals (Wood et al. 2008). Only 0.08% of the world’s oceans are in strict no-take areas. In an apparent response, a number of large MPAs have been established (e.g., British Indian Ocean Territory MPA, the Phoenix Islands Protected Area, the Northwest Hawaiian Islands National Marine Sanctuary, and the recently announced Cook Islands and New Caledonian marine protected areas) or are proposed (the Coral Sea Commonwealth Marine Reserve⁶). Often these large MPAs are intended to protect pelagic species.

The vast area encompassed by large MPAs often makes sufficient management, protection, and enforcement difficult. Davies et al. (2012) find that the approaches that make MPAs effective for near-shore areas may not be effective or appropriate for large MPAs that target pelagic fisheries. In some cases, the implementing body may not have authority to enforce MPA rules and restrictions throughout the covered area. MPA News (2011) praised large fisheries closures under the Nauru agreement, but U.S. and some other fishing fleets are exempted from area restrictions because the closures lie in the area beyond national jurisdiction. In a recent report, the Marine Conservation Institute finds that enforcement in large U.S. marine monuments is insufficient to achieve conservation goals (Richardson 2012).

MPAs help establish legal authority to manage areas, particularly poorly managed or entirely unmanaged areas. Large MPAs also increase public awareness of marine issues and may even positively affect local infrastructure and wellbeing by attracting conservation funds and improving local governance. Nevertheless, several interviewees worried that establishment of large MPAs have given the impression that habitat protection and marine management have been implemented on a large scale, when only a small percentage of large MPAs have stringently restricted extraction or designated no-take zones. Some large MPAs provide no real enforcement. When large MPAs do significantly restrict fishing effort, they may displace it to areas with little or no fisheries management. This research identified no large MPAs designed to explicitly address this and other potential fisheries impacts.

DO LARGE MPAs SET THE STAGE FOR IMPROVED MARINE PROTECTION AND MANAGEMENT OR GIVE A FALSE SENSE OF PROGRESS TOWARD GLOBAL TARGETS FOR MARINE MANAGEMENT?

Coordinating Global Efforts

Proponents of MPAs, and other forms of spatial marine management, feel the urgency to create effective marine protection but realize that to do so can be painfully slow in places where the basic enabling conditions for marine management are weak (Agardy, Notarbartolo di Sciara, and Christie 2011). Several interviewees wondered if too much time is spent implementing new management regimes in places where human pressures are light, rather than in places where they are heavy and therefore improved management would achieve greater ecological and social results, but take more time and resources. They expressed the need to balance the long-term benefits of protecting nearly pristine areas with the short-term need to manage areas already under considerable stress. Many pointed to the absence of a global (or even

6. <http://www.environment.gov.au/coasts/mbp/reserves/coralsea-region.html>

regional) marine management strategy that would:

- help prioritize long-term and short-term marine management opportunities;
- ensure coordination of the many efforts to protect and manage marine areas;
- consider network connectivity among isolated marine management efforts within and among countries and at regional scales;
- reduce the possibility of unintended consequences, including displacement of fishing effort, demand, or both;
- better integrate spatial tools for marine management with other forms of marine and environmental management; and
- provide criteria to evaluate the quality or success of marine protected areas.

In its role as a scientific and technical body, the Convention on Biological Diversity could catalyze such a strategy. However, because the legal mandate for areas beyond national jurisdiction falls under the UN Convention on the Law of the Sea (UNCLOS), the UN General Assembly (UNGA) would be responsible for establishing any new legal instruments. An implementing agreement under UNCLOS has been a longstanding goal of the European Union. Such an agreement has been gaining traction, though there remains strong opposition from the United States, Canada, and a few other nations. At Rio+20, nations committed to decide whether to pursue an implementing agreement by the fall 2014 session of the UNGA.

In the meantime, UN Secretary-General Ban Ki-moon has launched the Oceans Compact, an initiative to strengthen UN system-wide coherence in delivering on its oceans-related mandates.⁷ In addition, the independently funded Global Ocean Commission is planning to tackle some MPA issues, using the power of political persuasion. The World Bank Global Partnership for the Oceans, a not yet fully operational endeavor, could address MPA policy questions through the funding of projects that accord with its global development philosophy (e.g., promoting the use of property rights within the sea).

Conclusion

Approaches to marine protection continue to evolve from pure no-take reserves to more holistic and comprehensive approaches to marine spatial management. In the developing world, a staggering need for better marine management has led to an opportunistic rush to establish marine protected areas and other forms of marine management in those areas where demand is high and opposition is manageable. Demand and need for marine management exceeds supply of design and implementation resources, including talent. As a result, institutions (especially NGOs, funders, and international bodies) have many opportunities to improve the way they work together to achieve marine protection, conservation, and management goals. Blue Earth Consultants (2010) provides many examples of substantial gains in management effectiveness achieved through improved collaboration, and CEA (2012) concludes that “Environmental advocates, philanthropic organizations, intergovernmental banks, national and local governments, and business along the seafood supply chain need to break out of issue-specific silos and work together to prioritize and coordinate their efforts.”

In the developed world and regional seas, substantial gains in fisheries and environmental management already have been achieved. Nevertheless, globally, fisheries are thought to be in decline (Hughes et al. 2005; CEA 2012). Marine protected areas alone will be insufficient to reverse the decline. Furthermore, the current approach to marine protection is not uniformly effective—biologically, socially, or financially. Nevertheless, marine protection is an important component of marine management. The key is to understand when marine protection works and how to marry MPAs and other forms of spatial management with other environmental, natural resource, and economic policies. That means identifying conditions that enable effective MPAs and addressing the challenges that hamper them. While the literature is filled with best practices for MPA siting and design, the present research revealed nine factors that appear to be critical

7. “Besides providing a platform for all stakeholders to collaborate and accelerate progress towards promoting healthy oceans, the Compact will be underpinned by pragmatic short-, medium- and long-term strategies aimed at increasing coordination and cooperation at the national, regional and global levels, as well as within the United Nations system. The intention is to address the cumulative impacts of sectoral activities on the marine environment, including by implementing ecosystem and precautionary approaches.” (<http://www.un.org/News/Press/docs/2012/envdev1316.doc.htm>)

in setting the stage for successful marine protection:

Define objectives clearly and examine their social implications.

The human factor and social impacts associated with marine spatial planning must be taken into account to increase MPA effectiveness. Clearly defined objectives and goals facilitate assessment of that effectiveness.

Identify local demand for marine protection and create a constituency.

Local demand may come from a variety of sources, but a primary source is hardship: desperate economic times, lack of economic opportunity, and dependence on dwindling marine resources.

Make sure the scale of protection is appropriate to the available resources, because success may breed more funding and growth.

Small MPAs alone would never be sufficient to meet global marine conservation goals, but MPA and marine management success at small scales is likely to increase opportunities (and local demand) for additional MPAs.

Make sure there is an institution with authority to implement marine protection (and make sure that conflicting authorities and mandates are resolved early).

Even the best plans for marine protection can be undermined by competing authorities and mandates or by lack of action due to lack of clear authority.

Integrate fisheries and environmental management efforts.

Well-planned marine protected areas can be rendered ineffective by external inputs to the system. When fishing activity is restricted, authorities must ensure that marine protection and fisheries management are complementary and well coordinated.

Institutional complementarity matters.

Differences in institutional cultures and approaches can pose significant challenges for spatial management tools, including MPAs. These differences can be overcome if institutions can be brought together early in the design process to identify shared objectives.

Leadership and charisma matter.

The most important enabling condition for successful marine spatial management, especially marine protection, may be the presence of one or more visionary and charismatic champions. Certainly, more can be done to identify, nurture, train, and even create such champions.

The only way to achieve ambitious MPA coverage goals is through large MPAs.

Small MPAs, while effective, are insufficient to meet the ambitious goals set for the proportional protection of the world's oceans.

Size matters, but bigger is not always better.

Small MPAs may be insufficient to achieve global and regional conservation goals on their own, but they have been shown to be locally effective in certain cases. Large MPAs can achieve ambitious spatial goals, but their ultimate effect on marine conservation outcomes, especially overfishing, remains a matter of debate. The opportunities and challenges described above are neither universally held, nor comprehensive. Examples of successful marine protection are many. The MPA community has worked tirelessly to refine application of MPAs to conservation and social goals. It continues to refine its understanding of where MPAs work, where they don't work, and how they can be better integrated into management of oceans and coasts.

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APPENDIX II:

THE BEST LAID [ADVOCACY] PLANS....

**A discussion paper prepared for the December 2012
Aspen Ocean Community Dialogue: Advocacy, Strategy, and Policy**



**Aspen Planning
& Evaluation Program**
at the Aspen Institute

DAVID DEVLIN-FOLTZ AND ANNA WILLIAMS

ABOUT THIS PAPER

To help inform the Aspen Institute’s Ocean Community Study and Dialogue, staff from the Aspen Institute Advocacy Planning and Evaluation Program (APEP) conducted 20 informal interviews with experts from non-governmental organizations (NGOs), philanthropies, research institutions, and government. The interviews focused on the challenges and opportunities associated with successful advocacy for the adoption, implementation, and enforcement of Marine Protected Areas [MPA] that aim to address overfishing, noting that some of these MPAs also have other objectives.

We consider MPA advocacy to be similar to other kinds of policy advocacy that seek adoption of or changes to laws, policies, regulations, or voluntary initiatives in cases where a legal or policy mechanism is lacking. Policy advocacy can take many forms, including technical advising to government decision makers and other stakeholders, public education efforts, dissemination of research and analysis to key constituents, and grassroots organizing and lobbying. From restricting fishing in Hong Kong waters, to banning extractive activities in the Northwestern Hawaiian Islands Marine National Monument (now called Papahānaumokuākea), to hard-won passage of the California Marine Life Protection Act, to carefully negotiated community-monitored MPAs in the Philippines, a rich array of policies have been brought into being through an equally rich array of advocacy approaches.

The MPA experts we interviewed have either engaged directly in MPA advocacy efforts or were familiar with such efforts. In some cases their research has contributed evidence for MPAs, such as the scientific basis for MPA adoption or the need to shift MPA boundaries or catch limits. In other cases, interviewees took similar evidence into meetings with senior decision makers such as ministers of natural resources or foundation boards of directors. Yet others have facilitated negotiations on MPA location and goals. Their examples and stories draw upon experiences on every continent. *All may be considered “advocates” for MPAs or related spatial management approaches to marine ecosystem conservation—whether or not they would use this term to describe themselves.*

This paper complements another paper developed simultaneously by Linwood Pendleton and Michelle Lotker of Duke University’s Nicholas Institute. The Nicholas paper provides an overview of MPAs and other spatial management tools, describes the breadth of objectives these tools pursue, and considers the challenges that hinder effective realization of MPAs and other marine spatial management tools. **This paper focuses on the challenges and opportunities facing those who seek to advocate for the effective design, adoption, and implementation of such tools.**

The remainder of this paper is divided into two parts: First, we summarize themes from the interviews according to advocacy campaign elements that emerge from the “composite logic model” for advocacy and policy change created in 2007 by Julia Coffman, now head of the Center for Evaluation Innovation. These elements include: Impact, Policy Goals, Audience, Context, Activities, and Inputs. The “composite logic model” assembled and synthesized several attempts from the policy and political science literature to model how policy change occurs. A team at the Aspen Institute then worked with Coffman to convert the same logic model into a web-based planning and evaluation tool called the **Advocacy Progress Planner**. Second, we offer three broad take-home observations based on the interviews and the authors’ experience advising and assessing policy advocacy efforts in the United States and across the globe.

ADVOCACY PROGRESS PLANNING: ELEMENTS OF AN EFFECTIVE [MPA] ADVOCACY PLAN

Some advocates use planning tools like composite logic models to represent the steps in a process of change, making explicit the user’s assumptions about how change will occur. Others construct a campaign strategy or step-by-step plan as part of a project proposal. Many simply carry an intuitive “outline” of their advocacy

strategy in their heads. However the advocates develop or record their ideas and plans, they will rely on some form of explicit or implicit strategy that reflects their “theory of change”¹—the steps they envision to achieve long-term goals and solutions to complex societal problems. Below we summarize insights from the interviews with MPA advocates on effective MPA advocacy planning according to the five elements from the policy advocacy composite logic model.

1. IMPACT: DEFINING THE DESIRED LONG-TERM EFFECT OF MPA ADVOCACY

Advocates for policy and social change have a desired impact in mind, typically a long-range vision that motivates the advocacy effort. For human rights advocates, this may be a more just or inclusive political system. Global health activists may seek access to care for disenfranchised populations. In the context of MPAs, interviewees described a range of desired long-term effects, including some that are specific to a particular species and location, and others that are more global in nature, such as placing a certain percentage of the world’s oceans in “protected” status.

In the United States, the term MPA encompasses approximately 1,700 areas which vary widely in purpose, legal authorities, agencies, management approaches, level of protection, and restrictions on human uses. They are designed to achieve a myriad of conservation objectives, ranging from protecting biodiversity hotspots and preserving sunken historic vessels to protecting spawning aggregations important to commercial and recreational fisheries. Levels of protection range from no-take reserves to sites allowing multiple uses, including fishing, recreational, and industrial uses.²

The wide range of MPAs in the U.S. can be exemplified by the California Marine Life Protection Act (MLPA), passed in 1999, which supports a system of MPAs with several broad objectives, including protecting the state’s marine life and habitats, marine ecosystems, and marine natural heritage, as well as improving recreational, educational and study opportunities provided by marine ecosystems.³ The levels of ecosystem and single-species protection within the MLPA system of MPAs range widely, in large part due to the extensive process undertaken over several years to agree on each MPA’s size, location, and objectives. In the MLPA’s South Coast area, for example, some MPAs allow limited recreational and commercial take and some are “No Take” MPAs that prohibit recreational and commercial take.⁴

In other parts of the world, MPA design and objectives similarly vary widely. In Chile, for example, MPAs span both Marine and Coastal Protected Areas, which protect marine biodiversity and can be either large or small, and Nature Sanctuaries, which mostly target single species and tend to cover small areas. The threats affecting both the Marine and Coastal Protected Areas and the Nature Sanctuaries, including aquaculture and exploitation of marine resources, are common to both.⁵ Chile Salas y Gómez Marine Reserve in Chile is one of the world’s largest no-take zones in support of marine ecosystem protection and fisheries recovery. In other parts of Chile, MPAs are much smaller and designed for multiple objectives beyond protecting marine ecosystems, including supporting tourism, artisanal fishing, and other recreational uses.

The differences between MPAs are not lost on the marine conservation community. Several interviewees noted tensions between designing MPAs focused on fish-preservation or other conservation-related goals versus

1 For more information on theories of change, see: Anderson, A. (2005). *The community builders approach to theory of change: A practical guide to theory and development*. New York: The Aspen Institute Roundtable on Community Change. See also: <http://www.theoryofchange.org/about/what-is-theory-of-change/>

2 US Department of Commerce and US Department of Interior, National Marine Protected Area Center. www.mpa.gov

3 State of California, Department of Fish and Game, Marine Life Protection Act <http://www.dfg.ca.gov/mlpa/>

4 State of California, Department of Fish and Game, Marine Life Protection Act, South Coast Marine Protected Areas: http://www.dfg.ca.gov/mlpa/scmpas_list.asp

5 Marine Conservation Area Toolkit. http://www.mcatoolkit.org/Country_Analyses/Chile.html

MPAs that also have explicit socio-economic goals. Although a few interviewees described the desired long-term MPA impact in relation solely to the health of fish species, marine ecosystem protection, and other conservation impacts, most interviewees believed that MPAs must also have human-centered goals to be successful in the long run. From the perspective of the latter group of interviewees, no-take MPAs are rarely viable, at least in most MPA (and candidate MPA areas) where humans are also part of the ecosystem. As three of our interviewees put it:

Biodiversity by itself is not viable. [We] need to consider ecosystem services and human well-being and socioeconomic context.

We need political will conditioned on real linkages to the socioeconomic interests. Without that, you'll have much more work to do to achieve compliance—with implications for the costs.

Conservation is going nowhere if it's not about food security and resilient water supplies. In other words it's never a starting point if you talk about excluding people from a resource. What that implies is that a lot of the [big international NGO] strategies that have focused on excluding people from areas have to start from another starting point. The starting point that would be useful is the one that the World Bank seems to be geared up to do—loans to countries to have use rights management as a tool.

Defining the desired impacts has implications throughout any advocacy planning effort, from the choice of audiences to the design of the incentives to enlist the support of key stakeholders, to the choice of tactics.

However the desired long-term impacts are defined, advocates are generally more effective when they keep these aspirations clearly in mind as they develop their strategies, navigate challenging contexts, and push through short-run setbacks.

2. POLICY GOALS: SELECTING THE TYPE OF POLICY CHANGE NEEDED TO PROMOTE THE DESIRED LONG-TERM IMPACT

The long-term desired MPA impacts are broad and visionary. The policy goals leading to these long-term impacts are typically narrower and at least potentially within the advocates' power to influence. Advocates using the composite logic model or the Advocacy Progress Planner choose among types of policy goals that range from policy development to placement on the policy agenda to implementation and maintenance of a policy, once passed.

As the experience of our interviewees attests, policy progress often does not follow a neat chronological order. A desired policy may be adopted, only for the decision to be reversed or weakened. Advocates may seize a political opening to place a proposed MPA on the agenda before the supporting data—about the status of particular species or the implications for a commercial fishery, for example—are fully analyzed. A policy may be implemented, but not monitored or enforced.

Each type of policy goal may require different allies and partners. But these are not fixed. The choice of policy goal can—and arguably should—change in response to strategic and tactical context and opportunities. Success requires smart goal setting and nimble advocacy.

As was the case in terms of the desired long-term impacts, interviewees held a range of views on desired MPA policy goals. Some focused on policy implementation goals that would increase the quantity of MPAs in terms of number and size; others on developing policies to increase MPA quality in terms of the scientific basis, design, and monitoring; and many again raised the tension between what appears often to be competing conservation- and human-oriented goals and objectives. Even when individual MPAs have a savvy process for setting goals and adjusting goals as needed, we observed discord on what the “right” policy goals should be.

3. AUDIENCES: TARGETING THE AUDIENCES WHO CAN CREATE OR INFLUENCE THE DESIRED POLICY OUTCOMES

Effective policy advocates identify their target audiences. We define the *primary audience* for an advocacy effort as those who hold the power to bring about the specific policy, legal, or regulatory change that the advocate seeks. Our interviewees offered glimpses of the range of decision-makers they sought to reach, from prime ministers of island states to local authorities or tribal leaders in coastal fishing communities; from CEOs of major Japanese shipping lines to individual fishermen in Hong Kong; from state fisheries management officials in the U.S. to negotiators of multilateral agreements. The primary audience is that targeted decision-maker, decision-making body, or power broker. In some cases, persuadable voters may be the primary audience if, for instance, a public vote will determine whether to create and fund an MPA.

Advocates usually have secondary audiences as well: those who can influence the primary decision-makers. These audiences are even more varied and depend on the political, social, and cultural context. They might include technical experts in regulatory agencies, celebrities, wealthy political donors, party leaders, political allies, religious figures, journalists, or well-respected experts. Members of secondary audiences are essentially the means—the conduits through which persuasive arguments or messages are conveyed to the primary audiences.

Our interviews did not discuss secondary audiences by this name; however, several interviewees discussed how stronger communications strategies are needed to build support for MPAs among the primary policymaker audiences—or to counteract overt opposition that can influence whether the primary audiences will support the effort. In particular, interviewees described how vocal elements of the commercial and recreational fishing industries feel threatened by MPAs—with or without cause—and as a result are spending significant financial and political capital to categorically prevent or weaken MPAs. As one interviewee said:

Media and other public engagement strategies are critically important to advocacy success, mainly because of active opposition. Media can help neutralize it; it's important as a defensive tool.

In our take-home observations we expand on the need for a strategy that focuses on engaging all critical stakeholders, starting with the primary and secondary audiences.

4. CONTEXT: FACTORING CONTEXT INTO THE ADVOCACY STRATEGY

The Advocacy Progress Planner and the composite logic model on which it is based remind users that plans for achieving policy goals to advance long-term impacts do not exist in a social, political, or budgetary vacuum. MPA advocacy proceeds today in a broader context of immense pressures: economic slowdown and fiscal crisis in much of the global North, for example, food insecurity for many populations in the global South, and climate change. Contextual factors extend from the global to the very local: a compelling video gone “viral” or a local corruption scandal revealing undue influence by commercial fisheries may generate a surge in interest and an unexpected opportunity—or a new obstacle. A clearly defined—and generally perceived—collapse in a commercial fishery or in the overall coastal economy can generate political momentum. The context also includes other issues that may have seized the attention of decision-makers and their constituents, such as the announcement of new research findings that can have profound impacts on the field, or oil spills or natural disasters that pull attention and resources in a different direction without warning. And indeed, the issues that compete for audience attention may be completely unrelated to marine preservation. Context may matter more than anything else. Although this point may appear obvious, it is sometimes forgotten by advocates whose passion for their cause may blind them to the rest of the social and political ecosystem in which they work.

Interviewees underscored the importance of context, including its cultural and economic elements. In the United States, for example, the recreational fishing community asserts a deep and powerful cultural connection between “liberty” and a perceived “right to fish”—not unlike the right to bear arms. In many countries,

coastal communities need fishing simply to survive, and the choice between survival and anything else is clear. For some international commercial fishing companies, anything that could curtail fishing in their preferred fishing grounds can be perceived as a threat to profit and ultimate financial sustainability. And the economic context includes seemingly exogenous factors: political events that drive up global fuel prices alone can have a profound effect on the markets and demand for fish.

Several interviewees noted another contextual variable and challenge: overlapping jurisdictions and contradictory public mandates that require extra consideration and resources from MPA advocates:

In every country we are working on in Latin America there is a ministry of Agriculture and fisheries whose mandate is to increase jobs and livelihoods and production. Then there is an environmental conservation agency whose job it is to limit exhaustion of resources. They are at cross purposes. One is promoting more boats and more fishers on the water while the other agency is even trying to do [fishing boat] buyouts. It's funny because the other side is subsidizing diesel.

Taking proper account of contextual factors may require a sudden acceleration of advocacy effort, a period of “laying low,” or shifts in strategies, tactics, or even goals. This again argues for well-prepared and nimble advocates, as well as funders who also understand the importance of considering context when devising, implementing, and adapting their strategies.

5. ACTIVITIES: SELECTING ACTIVITIES TO MAXIMIZE INFLUENCE

The activities—or tactics—that advocates undertake should emerge logically from their analysis of the desired long-term impacts, policy goal, audiences, and context. The experience of our interviewees suggests that MPA advocacy deploys many tools, often including research, education, monitoring, creative enforcement programs, stakeholder facilitation and communication, and many others.

Many interviewees spoke of **commissioning, conducting, or presenting research**, reflecting their desire to offer solid empirical evidence for the value of MPAs based on fish counts, biomass, cost-benefit analyses for fishing communities, and more. Perhaps as many spoke of the need for still more research, especially to document a clear set of science-based criteria for establishing MPAs, feasibility assessments, effective monitoring, proper enforcement, and long-term evidence of MPA effectiveness in terms of species recovery and ecosystem protection. Interviewees noted the need for rigorously researched targets and objectives by which implementation effectiveness can be assessed. But they also recognized that in the context of many MPAs, resources are not available to undertake all or even most of these activities. They noted that in the absence of necessary resources, decisions on priority activities and alternatives to the evaluation “gold standard” should still be as informed as possible.

We heard consistently that successful advocacy depends on a carefully developed **stakeholder strategy** that accounts for context and the varied interests of all major MPA stakeholder groups. Building stakeholder coalitions can require not only strategic skills and an investment of time, but also a strong network of contacts and allies, exceptional communication skills, extraordinary patience, a deep commitment to active listening, and yet more patience. As described by one interviewee:

Building from the ground up is longer and more difficult but has greater return on investment. [This approach] shows some real developmental objectives. Do it in integrated fashion, through lots of debate and compromise. You will end up with compromise areas, sure, but everyone will be behind it and success will be much higher.

Stakeholder strategies need to account as well for power dynamics within and across those stakeholder groups. In the U.S. context, in particular, advocates bemoaned the power of recreational fishermen to block or hinder MPA support and broader consensus-building. As recounted by one interviewee:

Honestly if people really want to pursue some sort of MPA agenda, there are some key people at the top of the industry who drive this and you are going to have to figure out how to have a conversation with them. For instance, Bill Shedd, President of AFTC [the American Fishing Tackle Company]. He is also President of the Sea World Research Institute. He is still upset about the MLPA [in California]. Certain people like that within the industry are convinced that MPAs are just trying to shut down recreational fishing. And that people who are for MPAs fundamentally are against fishing (even if this isn't correct). Perception is everything.

Indeed, addressing the commercial and economic interests of fishing communities may be necessary at every scale of MPA within the United States and within common high seas fishing grounds. Choosing to create MPAs in areas where there are few or no existing human interests or sizable conflicts with the fishing communities (local or otherwise) can greatly alleviate the complications associated with stakeholder management. One interviewee who works on large MPAs said:

If you are working in populated areas, then the more economic activity in the designated waters, the harder it is to get things done. The more is going on, the harder it is to protect places.

Several interviewees discussed how the stakeholder challenge cannot and should not be avoided given that the vast majority of MPAs are in areas with human populations or where fishing occurs. From this perspective, any stakeholder strategy will only be strong if it considers those whose support is necessary not only to achieve initial success, but to sustain that success for the long-term. As one interviewee put it:

Any protected area can be completely undone by the stakeholders who are most affected by it if they weren't part of the process who took part in it. Disenfranchis[e] the most important stakeholders and then they eventually undermine it.

Some interviewees discussed how **directly engaging anti-MPA / oppositional stakeholders** and working to gain their support can support MPA sustainability, even if it entails compromise at the outset and a significant investment in time and energy. In some cases, a few pointed out, there is even an untapped knowledge base and a set of shared interests that are overlooked if the fishing community is not directly engaged. In the words of one interviewee:

MPAs will be much more durable with buy in from the recreational and commercial fishers. There is also a tremendous amount of knowledge [within these groups], particularly on the commercial side. If you can get a commercial fisherman engaged [in MPAs], and [understanding] how it is of value to them, you can get [their] site-specific knowledge. Dialogue to date has been very oppositional [but] there are ways to wrap the commercial and recreational fishers into the debate.

Public outreach strategies are a fundamental element of some—but not many—MPA advocacy efforts. Reaching “the general public” is rarely a realistic objective. And it is rarely useful: the general public is typically neither the primary audience (decision-makers who can cause the desired change) nor the secondary audience (those who can influence the decision-makers). Our interviewees cited a range of activities through which specific influential constituencies *within* the general public were reached as part of a stakeholder strategy, including promoting consumer boycotts of threatened species, composing newspaper op-eds, or deploying sophisticated interactive digital media.

Some interviewees noted that public outreach can also include innovative public engagement tactics like “crowd-sourcing” data through voluntary fish identification and other monitoring schemes, or using well-mesaged ads to encourage recreational fishers to transition towards catch and release fishing. Interactive digital media—and even simple tools based on SMS mobile phones—offer great potential for engaging the public in efforts to enforce MPA restrictions.

6. INPUTS: ENSURING THAT ADEQUATE RESOURCES ARE IN PLACE

The composite logic model and Advocacy Progress Planner ask advocates to consider carefully what resources they have and what resources they need to complete the activities they have planned. The resources or “inputs” they need could range, for example, from more staffing to improved database software, deeper expertise, more funding, or better messaging. Advocates should tailor their goals and activities to the resources, capacities, and potential to influence the desired change. As advocates in many contexts learn, passion might be a real asset, but it is rarely a substitute for financing and skills.

Two topics related to MPA advocacy inputs stood out as common interview themes: evidence and communication. With regard to **evidence**, some interviewees suggested that a particular strength for MPA advocacy is the growing body of empirical evidence demonstrating the long-term capacity for fisheries to rebound as well as the (related) evidence that MPAs can offer long-term economic benefits. Some interviewees noted limitations to the evidence: many MPAs have not been designed or implemented sufficiently to realize these rebounds, for example; and few MPAs have the financial or technical resources required for robust monitoring (and for establishing cause-and-effect relationships between the MPA and the species or biodiversity recovery). In some cases, MPAs have simply not led to the desired outcomes, suggesting that more information is needed about the combination of variables that can (as confidently as possible) lead to desired outcomes. Others noted that MPAs on the whole are still relatively new, and that it is too soon to predict trends in MPA influence given factors such as complex contextual variables, widely differing MPAs, and limited availability of data on monitoring and enforcement.

With regard to **communications**, several interviewees discussed how MPA advocates suffer from a lack of strong strategic communications skills, including the capacity to:

- Share success stories beyond a small inner circle of academics, scientists, and staunch MPA advocates
- Develop and draw on best practices in monitoring
- Translate technical information into lay terms
- Recruit strategic allies and power brokers to become MPA advocates
- Counteract the relatively deep-pocketed anti-MPA campaigns.

Advocates in the United States in particular have found themselves outspent and over-matched in their communications activities:

Media strategies would be useful if we really invested in it. But we never invest enough. So honestly, I don't think we are making a difference with the kind of media activities we typically undertake. It pains me to say that.

We may not be losing the battle but we are certainly being outspent. [This affects the] caliber and quantity of communications. There is a small handful of academics with no budget for communication up against a much larger industry whose advertising budgets far outweigh the [advocacy groups'] entire budgets. Communication isn't seen as concrete enough to spend limited cash on.

Several interviewees suggested that the most effective means of persuading stakeholders to support an MPA may be to change the messengers:

I feel like I have stacks and drawers full of studies and reports and information, confirmation of information, studies etc. etc. and I feel like we've studied this to death and written reports on it to prove that we were over-fishing, proven by catch and habitat destruction. And then there's another drawer on effectiveness of MPAs.

And another on community-based management. So on the one hand we've talked about this so endlessly that talking more about it isn't going to do anything. Now having said that, we've brought fisherman from co-ops in Mexico who were trying to prevent by-catch of turtles to Cuba and it was a remarkable experience. So maybe what's been missing is a peer to peer conversation rather than the "anointed expert" telling people...

USING AND UPDATING A COMPOSITE LOGIC MODEL

Advocates who develop a composite logic model like the Advocacy Progress Planner typically discover during the process that they have opportunities to adjust their strategies to be stronger through, for example, testing assumptions, updating goals to some that are more relevant or achievable, adjusting tactics in response to changes in context or toward those which have the greatest likelihood of making a difference, and targeting fundraising activities to support the inputs that lack needed financial backing. Logic model tools like these can help develop a strategy; more important, they can help advocates understand whether interim outcomes are being achieved as envisioned, and whether strategies should be adapted over time. In the context of complex and evolving policy landscapes such as marine conservation, logic models should rarely be considered static. For these tools to be relevant and useful, advocates should keep them current. And funders should be prepared to be just as nimble.

TAKE-HOME OBSERVATIONS

We offer three overarching take-away observations that help place what we heard from the interviews in a broader context of effective advocacy. These observations are intended to catalyze thinking—and possibly discussion and strategy development—about MPA advocacy in relation to both individual MPAs and the

MPA “community”—if such there is. We intend our take-away observations to tee up issues that may constrain MPA advocacy.

1. TO AGREE OR (AGREE TO) NOT AGREE: THAT IS THE QUESTION

We observed several difference in interpretation and opinion about core MPA concepts, desired long-term impacts and goals, and optimal strategies. These differences spanned contexts and both short- and long-term efforts. For instance, some interviewees thought that trying to determine the “right” percentage of the ocean that should be under protected status is distracting the community, causing infighting, and undermining each others’ efforts. Interviewees argued that the community should be supporting each other by creating as many new MPAs and improving MPA effectiveness—two objectives that are broadly supported. Another divisive issue is whether more MPAs need to be designed as no-take zones in order to be effective—or whether designating MPAs as no-take zones actually undermines critical support for these same MPAs, leading ultimately to failure.

Disagreements are to be expected in any field, and disagreements within the MPA community were already well known to our interviewees. A range of views is in fact healthy, offering space for experimentation and hypothesis testing, the potential to learn from others, and to strengthen opinions. (Jonah Lehrer’s article “Groupthink: The brainstorming myth” published in January 2012 in *The New Yorker* provides an excellent discussion on the power of creative dissent and discourse.⁶) On the other hand, *counterproductive* tactics like seeking to discredit each other’s views undercut our efforts and contribute to perceptions among funders and among those who are not part of the community (including MPA opponents) that advocates lack strategic coherence. And these activities absorb valuable time on “tit for tat” communications. If not managed, such disagreements can allow opponents to “divide and conquer.” And at best, they carry high opportunity costs.

6 http://www.newyorker.com/reporting/2012/01/30/120130fa_fact_lehrer

We observed significant differences concerning terms and concepts, and desired long-term impacts and policy goals. **Terms defined and interpreted differently** include “marine protected areas” (e.g., whether certain criteria should be met for areas to be called MPAs) and other foundational concepts such as “success,” “ecosystem restoration,” and “effectiveness.” **Differences in opinion on the desired long-term impacts and policy goals** were even more apparent during the interviews. As already discussed, we observed a range of views on the underlying question of whether humans should be explicitly considered part of the long-term vision and on other significant questions such as whether impacts should be defined in terms of species, systems, habitat, percent of ocean protected, or other desired outcomes. There are also differing perspectives on policy goals, such as the ideal targets for the numbers, types, size, and quality of MPAs, not to mention goals related to monitoring and enforcement.

Lack of clarity on goals can not only create confusion within the MPA community, but it can cause others who are already suspicious of MPAs to distrust outright the goals and intentions behind MPAs. We heard, for example, that MPA opponents cite instances where MPAs originally focused on recovery of an individual species, but when that species had recovered to the desired state/condition, the goal “somehow” shifted to broader conservation of biodiversity (or something else). Perceived “bait and switch” actions by MPA advocates can engender distrust from those who might consider supporting MPAs:

From the fisherman’s side it’s not clear what the goals are. They are hearing that we need to protect habitat, size and age structure, biodiversity, overfished species [i.e., many different things.] While all of these things are true, these are not all true at every site. There has been a lot of noise and some conflating at the political field level. It’s not clear that in every case the objectives were exactly adhered to [fueling distrust].

Based on the views shared during the interviews, we think that agreement within the MPA community—both on definitions for terms and concepts and on long-term impacts and policy goals—is unlikely. It may also be unnecessary. Agreement on terms like “success” and “effectiveness” is unlikely due to substantive differences in MPA goals and objectives, and because there are still likely to be fundamental philosophical differences on whether humans should be an integral part of any definition of “success.” We think that reaching agreement on these terms is also *unnecessary* because the ultimate goals and desired impacts appear to be compatible and mutually supportive even if the strategies and tactics used to get there could be quite different.

As a wise person once put it, “the main thing is to keep the main thing the main thing.” In this case, the main thing is to ensure that MPA advocates are working in support of each other and are collectively making progress in advocating for effective MPAs—considering each individual MPA as well as MPAs collectively. To this end, the MPA community could agree to disagree on which definitions and goals are “right” and instead determine where substantive disagreements are harming the cause—and focus on resolving only those disagreements. Once any substantive agreements are addressed to the extent possible, the community could agree to “live with” any remaining differences and to not undermine each others’ efforts in order to keep focused on the broader mission supported by all within this community.

2. UNLEASHING THE POWER OF ROBUST STAKEHOLDER STRATEGIES

Seasoned advocates understand **that even the best ideas will often fail to see the light of day without a strong stakeholder strategy.** The powerful forces of perception, allegiance, culture, and preconceptions can and usually do trump even the most solid evidence-based efforts. We heard that many MPAs suffer from not having a stakeholder strategy, or at least a strong stakeholder strategy, and that lessons learned (often the hard way) from stakeholder work in the past are too rarely shared to benefit the broader community. In the U.S. context we heard about likely untapped allies, such as the maritime community, that could help offer needed support for MPAs in some contexts, and about being “outgunned” by powerful opposing forces with deep pockets who are working to prevent new MPAs from being adopted. We similarly heard about creative ally development, such as utilizing the Chilean navy to support MPA research in Chile through donated use

of naval vessels. In another case, a Jamaican fisherman who has become a vocal proponent of MPAs has the potential to sway the opinions of other fisherman who are less likely to take outsiders seriously. In each case, a stakeholder analysis can reveal both tapped and untapped allies, and help to prioritize investments in new supporter and spokesperson recruitment.

At the global level, stakeholder hurdles, challenges and opportunities are generally consistent. To put it simply, communities often perceive MPAs as threats if they rely on the MPA areas and resources for their food, recreation, or other sources of wellbeing; commercial interests may perceive MPAs as threats to their bottom line and financial sustainability; decision makers can be both pro- and anti-MPA but will generally listen to their key constituencies; and other key constituency groups will tend to align on one side of the fence or the other according to predictable “party lines” or perceived economic interests.

The allegiances of these groups are not always predetermined, however, and good stakeholder strategies—with enough expertise and resources behind them—can and we think will tip the balance of power in some cases in favor of MPA adoption and implementation.

We have identified four themes from the interviews that we think could strengthen the field by converting current stakeholders into active MPA advocates. First, we heard about the **need to share real stories about successful MPAs** (noting the lack of consensus on what constitutes “success”). A number of interviewees described how these stories, including valid research documenting species’ recovery, are not widely known beyond an inner circle of academics and staunch proponents, and that these stories could make a powerful case for MPAs to stakeholders who otherwise might be skeptical about MPA efficacy. As one interviewee put it:

People don't know about these examples [of successes]: People are quite surprised when I list the examples that I know about. And when [they] hear talks by Daniel Paulie, [audience members] seem quite surprised. I think that people don't know that fish come back from the dead. There is a lot of interest in the examples that I and my colleagues gave. It's a question about the broader community that I don't reach except at events like Rio. People don't know that the herring came back after 1975 and the rock lobster came back in Australia.

Second, we heard from several interviewees that the community could **redefine MPA “winners” and “losers.”** MPA conservation objectives and socio-economic objectives need not be mutually exclusive; however in many cases the MPA community has not put forth win-win alternatives. More often than not MPAs face fierce opposition from those who view MPAs as an inevitable choice between “winners” and “losers”—a competition that may be crudely characterized as fish versus people. MPA advocates need to clearly identify and raise the visibility of as many win-win MPAs as possible, and the winners (and visible proponents) need to include fishers and others who have traditionally been quick to consider themselves on the “losing” side. One interviewee put it this way:

There is generally a perception in the fishing community (commercial or recreational) that there has been a “MPAs at all cost” mentality. Perception is that it hasn't been a fair process. There are a lot of constructive things that can be done with MPAs that fisherman would probably agree with. It may take different messengers and a different message. Look for win-win options.

Third, and related to the previous points, we heard that, even if **MPA advocates are winning some battles, they are losing an ultimately decisive communication war.** Powerful MPA opponents with deep pockets and savvy communication strategies are waging a communications war against MPAs to get key stakeholders (and decision makers) on their side. This is occurring not only in the U.S., but also in international waters where opponents feel that their interests are threatened. Interviewees described being out-spent and “out-messaged” by their opponents, how academics and scientists are not able (for a variety of valid reasons) to serve as the much-needed spokespeople for MPAs, and how the battle of constituent perception will be lost if the MPA advocacy community does not mobilize, become smarter, and invest more resources in strategic stakeholder communications.

The focus should be on whatever strategic communication is needed to achieve the objective—such as creating a new MPA or enhancing MPA monitoring or implementation. This is not communication for the sake of communication; and as we have noted, a blanket public education campaign is rarely appropriate. Advocates should guard against winning the messaging battle at the cost of losing the war. For example, the advocacy community should be careful that a no-take MPA in one area is used to rally opposition in other areas. Even MPA successes can result in backlashes that subsequently can require a “rebound” strategy:

MPAs continue to be established, but new incentives are needed to create broader social consensus and overcome entrenched opposition. In the United States in particular, opposition from recreational fishermen may have intensified in response to the success of advocates in creating California’s reserves.

Finally, we heard that, sooner or later, **the MPA community will need to reach across the “aisle” to hold serious deliberations with staunch MPA opponents.** Some outreach of this kind is occurring one conversation and one person at a time. But few opponents publically “come out” in favor of MPAs if they think that doing so will jeopardize them in some way. Some interviewees suggested that sincere deliberation, and perhaps negotiation or mediation, will ultimately be needed to break through the entrenched views and arguments that hold back MPAs and other marine spatial management tools. In the words of one interviewee:

Someone like Ted Waitt or someone of that caliber is going to have to do a charm offensive, and not just that, but a real dialogue. Some very high level dialogues because once the industry puts its weight into opposing these things they won’t let the [California] MLPA happen again.

A deeper process could realistically take years to build trust and create a “safe space” to have meaningful and productive dialogue. Some efforts along these lines, such as the Joint Ocean Commission in the U.S. (see: <http://www.jointoceancommission.org/>), have in fact been underway for years, but the perception is that efforts like these need to be occurring—sooner or later—at a whole other order of magnitude in order to realize the progress needed on the societal-global level.

3. ENGAGING IN STRATEGIC COLLABORATION ACROSS THE OCEAN CONSERVATION COMMUNITY

We heard several positive comments about collaboration within the MPA community, such as the following:

Is there an opportunity for collaboration? Yes, for those working on locally managed marine areas. Think about what MacArthur and Packard, The Nature Conservancy, Rare Conservation, and the World Resources Institute (and others) have done—a long history of learning, for example, in the Pacific.

Such collaboration can strengthen MPAs and MPA advocacy by bringing more resources and perspectives to bear. But we also heard—and ourselves observed—that the MPA community could improve its coordination and collaboration, and that ramping up these efforts would increase the field’s strategic prowess and ultimate effectiveness. We also heard that NGO competition and “one upmanship” as well as shifts in funder priorities hinder the field’s long term capacity or focus, though we acknowledge that these dynamics are common—and perhaps inevitable.

A specific area where collaboration could strengthen the field is working on MPAs **as one tool in a larger suite of spatial management tools.** The MPA community could more comprehensively and strategically consider how the suite of tools can work together and how MPAs can complement others tools to create stronger, “win win” approaches that meet both conservation and human objectives. Some interviewees viewed this type of collaboration and strategic planning as a very high priority for making MPAs (and other tools) more effective.

To be clear, community-wide collaboration is no easy task; we have no illusions that advocates, their funders, or broader constituency groups will easily agree on a common set of goals, targets, priorities, strategies, or plans. We do, however, see the power of strategic collaboration among organizations to, for example, share where their work is overlapping or potentially competing, to draw upon each others' knowledge banks and global expert networks, to tap each others' relative strengths, and to help point

funding to those areas with the largest needs. We know that this kind of coordination is harder than it sounds, and also that funders, particularly philanthropic funders, are not always inclined to share common goals or funding strategies. Still, the field can be better informed and coordinated, and there are many examples in other sectors where this is taking place in ways that can help to "jump start" collaboration and leverage common interests and resources toward a shared vision.

TIME IS NOT ON OUR SIDE

We are working in a context of increased pressures on ocean resources, climate change, and short (if not closing) windows of opportunity for protecting resources that we may never be able to recover in the future. Each day's news seems to bring more evidence of the breadth and gravity of the challenges to the oceans' survival and health. The sense of urgency among advocates for MPAs is genuine.

At the same time, MPAs are relatively young responses to problems that are decades and even many generations in the making. Gathering credible evidence of impact takes years or decades, and the environment within which changes are occurring is itself changing rapidly. We may not have the luxury of waiting for the desired evidence: the California Environmental Associates study released as we draft this paper may presage a withdrawal of private and public funding long before MPAs and other marine management approaches have had time to fully prove themselves and realize their potential.

This concern helps underscore the value of the dialogue process we are undertaking, for as one interviewee remarked:

The time is perfect for looking at all the mistakes we have made and figuring out how to do this in a much more clever and methodical way.

APPENDIX III:

DIALOGUE PARTICIPANTS

Participants in the **Aspen Institute's Ocean Community Dialogue**, December 4-7, 2012, Fort Baker, CA, were invited as experts in their fields. As with all policy dialogues in the Aspen Institute's Energy and Environment program, the format followed the Institute's time-honored approach to intentional, values-based dialogue and adhered to a strict not-for-attribution rule throughout the duration of the dialogue. Individuals who participated in the dialogue are listed for identification purposes only—they are not responsible for, nor do they or their organizations endorse, the report's narrative, conjecture or any errors.

OCEAN COMMUNITY STUDY & DIALOGUE

DIALOGUE PARTICIPANTS

*Fort Baker, CA
December 4-7, 2012*

Tundi Agardy

Director Marine Ecosystem Services Program
Forest Trends

Sarah G. Allen

Program Lead
Ocean and Coastal Resources, Western Region
National Park Service

Delegate Wayne Andrew

Chairman of the Committee on Tourism and Protected Areas
Palau National Congress

Leah Bunce Karrer

Marine Conservation Consultant

Meg Caldwell

Executive Director
Center for Ocean Solutions

Lisa Campbell

Rachel Carson Associate Professor
Marine Affairs and Policy
Director of Graduate Studies MSC Division
Nicholas School of the Environment

Laura Cantral

Partner
Meridian Institute

Elizabeth M. De Santo

Assistant Professor, Marine Affairs Program
Dalhousie University

Josh Eagle

Professor of Law
University of South Carolina School of Law

Barry D. Gold

Program Director, Marine Conservation
Gordon and Betty Moore Foundation

Jennifer Jacquet

Clinical Assistant Professor
New York University

Jacob James

Managing Director
Waitt Foundation

Ayana Elizabeth Johnson

Director of Science and Solutions
Waitt Foundation

Miguel Jorge

Director, Ocean Initiative
National Geographic Society

Heather Ludemann

Program Officer, Marine Fisheries Group
The David and Lucile Packard Foundation

Kathryn J. Mengerink

Director, Ocean Program
Environmental Law Institute

John Mimikakis

Associate Vice President, Oceans Program
Environmental Defense Fund

Lance Morgan

President
Marine Conservation Institute

John Myers

Deputy Director, Caribbean Program
The Nature Conservancy

Elliott Norse

Founder and Chief Scientist
Marine Conservation Institute

Linwood Pendleton

Director, Ocean and Coastal Policy
Nicholas Institute for Environmental
Policy Solutions

Senator Kevin Ranker

Majority Assistant Whip
Chair, Committee on Energy,
Natural Resources & Marine Waters
40th Legislative District
Washington State Senate

Sarah Abramson Sikich

Coastal Resources Director
Heal the Bay

Mark J. Spalding

President
The Ocean Foundation

Margaret Spring

Principal Deputy Under Secretary
National Oceanic and Atmospheric Administration

Matt Tinning

Executive Director
Marine Fish Conservation Network

Michael L. Weber

Program Officer, Oceans, Coasts, and Fisheries
Resources Law Group, LLP

Emily Woglom

Director, Government Relations
Ocean Conservancy

Doug Woodring

Co-Founder and Managing Director
Ocean Recovery Alliance

THE ASPEN INSTITUTE**David Monsma**

Executive Director
Energy & Environment Program
The Aspen Institute

David Devlin-Foltz

Director
Advocacy Planning and Evaluation Program
Vice-President, Policy Programs
The Aspen Institute

Nicole Buckley

Senior Program Manager
Energy & Environment Program
The Aspen Institute

RAPPORTEUR**Anna Williams**

Director
Perspectio

