Policy brief:

Policy recommendations for improved EU and US cooperation in maritime governance

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CALAMAR
Cooperation Across the Atlantic for Marine Governance Integration

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About CALAMAR

The Cooperation Across the Atlantic for Marine Governance Integration (CALAMAR) project aimed to strengthen networks among key maritime stakeholders in the EU and US, and contribute policy recommendations to improve integration of maritime policies and promote transatlantic cooperation. The project convened a dialogue including more than 40 experts from both sides of the Atlantic. The CALAMAR project began in January 2010 and culminated in a final conference in Lisbon, Portugal on April 11-12, 2011 where the Working Groups' conclusions were presented. Two reports were developed to complement the dialogue by providing background information and assessments that: 1) compare EU and US maritime policy, and 2) identify opportunities and challenges for integrated maritime governance. A third report lays out policy recommendations for improved transatlantic cooperation in maritime governance based on the recommendations selected by the working groups throughout their discussions over the course of the CALAMAR project. All project reports are available on the project website at the following link: http://www.calamar-dialogue.org/.

The following report is a policy brief highlighting the conclusions of the third report, which lays out policy recommendations for improved transatlantic cooperation in maritime governance, and was produced with the assistance of the European Union within the framework of the Pilot Project on Transatlantic Methods for Handling Global Challenges. The contents of this report are the sole responsibility of Ecologic Institute (Germany) and its partners, Meridian Institute (US), Duke University (US), Institute for Sustainable Development and International Relations - IDDRI (France) and University of Delaware (US) and do not necessarily reflect the views of the European Union.

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We thank all of the CALAMAR experts who contributed their time and expertise to developing the recommendations and working group papers. In particular, we would like to thank the working group co-chairs. A full list of the working group members can be found in Appendix A.

Oceans and Climate Change co-chairs: Gary Griggs (US) and Niko Wijnolst (EU)

High Seas co-chairs: Emanuel Gonçalves (EU) and Lisa Speers (US)

Integrated Marine Policies and Tools co-chairs: Barry Gold (US) and Martin Pastoors (EU)

EU/US Transatlantic Cooperation co-chairs: Serge Beslier (EU) and Andrew Rosenberg (US)

About Ecologic Institute

The Ecologic Institute is a private not-for-profit think tank for applied environmental research, policy analysis and consultancy with offices in Berlin, Brussels, and Washington DC. An independent, non-partisan body, the Ecologic Institute is dedicated to bringing fresh ideas to environmental policies and sustainable development. The Ecologic Institute's work programme focuses on obtaining practical results. It covers the entire spectrum of environmental issues, including the integration of environmental concerns into other policy fields. Founded in 1995, the Ecologic Institute is a partner in the network of Institutes for European Environmental Policy. The Ecologic Institute acts in the public interest; donations are tax-deductible.

Contents

1 Introduction

In the face mounting pressures to the marine environment, there is a clear need for the EU and US to implement and enhance integrated ocean and coastal management systems. Given the scope and difficulty of this task, and the strong political will required, both governments stand to gain from a strengthened partnership. In particular, this partnership should focus on: developing joint approaches; exchanging data and best practices; strengthening the link between science and policy; and identifying opportunities for collaboration.

To this end, the EU funded Cooperation Across the Atlantic for Marine Governance Integration (CALAMAR), an 18 month dialogue bringing together experts from the EU and US to strengthen networks among key maritime stakeholders while identifying and developing policy recommendations. This policy brief summarizes the third and final report of the CALAMAR dialogue, which outlines these recommendations for strengthening and improving transatlantic[1] cooperation on maritime governance between the EU and US. Given the complexity, scope, and importance of the issues they address, these policy recommendations intend to not only provide insight into potential policy options, but also to serve as a launching point for a sustained transatlantic dialogue.

This summary reflects the structure of the full report, and is organized as follows:

- **Chapter 2 – Current policy framework:** This chapter provides an overview of the relevant policy frameworks for maritime governance, starting with the respective frameworks in place in both the EU and US, before examining the international level. Shortcomings are examined at all levels.
- **Chapters 3 to 6 – Policy recommendations:** These chapters outline specific policy recommendations on the following cross-cutting issue areas: oceans and climate change; the high seas; integrated marine policies and tools; and EU/US transatlantic cooperation.
- **Chapter 7 – Opportunities to develop an integrated maritime governance framework:** This chapter provides a conclusion highlighting opportunities to develop an integrated maritime governance framework.
- **Appendix A: CALAMAR Working Group Members**
- **Appendix B: CALAMAR Working Group Policy Recommendations**

2 Current policy framework

The governance and legal frameworks in place in the EU, US and internationally are markedly different.[2] However, in each case the management of ocean related issues has historically been sectoral in nature. This has resulted in fragmented policy characterized by gaps, redundancies, inefficiencies, coordination issues, negative externalities, and failures of prioritization.[3] In recent years, the EU and US have both attempted to address these issues by beginning to implement holistic, integrated and science-based maritime policies.

2.1 EU domestic policy framework

In the EU, implementation of a more holistic policy is occurring through the Integrated Maritime Policy (IMP) and its related Marine Strategy Framework Directive (MSFD). The IMP[4] is a broad package of domestic and international initiatives that aims to achieve a more integrated and holistic approach to governing EU marine waters than currently exists. The IMP has a dual focus on economic development and environmental sustainability, and aims to contribute to the targets set out in the 2010 EU economic reform package, "Europe 2020".[5]

The nascent status of the IMP and MSFD makes a critical assessment premature. However, it is possible to identify some of the challenges in the short term. These include:

- Developing and strengthening the array of platforms and tools necessary for coordination among actors at all levels, including a common understanding of legal terminology.[6]
- Incorporating and balancing the divergent interests (eg environmental, economic) of the relevant stakeholders.[7]
- Navigating existing competences to establishing a basis of authority for planning and implementing integrated management approaches, such as Marine Spatial Planning (MSP).[8]

These challenges aside, it is clear that the adoption of both the IMP and MSFD represent positive steps for the EU with regard to managing marine and maritime issues in a way that is more environmentally and economically sustainable.

EU IMP Programme of Work

The 2007 IMP Blue Book highlighted the following potential programme of work:

- A European Maritime Transport Space without barriers
- An EU Marine Research Strategy
- The development of national IMP policies
- An EU maritime surveillance network
- A Roadmap towards maritime spatial planning by Member States
- A Strategy to mitigate the effects of Climate Change on coastal regions
- Reduction of CO2 emissions and pollution by shipping
- Elimination of pirate fishing and destructive high seas bottom trawling
- An EU network of maritime clusters
- A review of EU labour law exemptions for the shipping and fishing sectors

2.2 US domestic policy framework

In July 2010, the US established the National Policy for the Stewardship of the Ocean, Our Coasts, and the Great Lakes (National Ocean Policy)[9], through an Executive Order signed by President Obama in Executive Order 13547.[10] Many coastal states are making progress on integrated ocean and coastal management reforms and coastal and marine spatial planning efforts. The Interagency Ocean Policy Task Force *Final Recommendations,* which provided the objectives and framework for implementation of the National Ocean Policy and identified nine national priority objectives that the US hopes to achieve through the policy. The new policy also identified nine regional planning areas composed of coastal and Great Lakes states that will partner to develop coastal and marine spatial plans for their specific regions in a manner consistent with the National

Key aims of the US National Ocean Policy:

- Ensure the protection, management and conservation of the US ocean and coastal ecosystems and resources.
- Respond to climate change and ocean acidification through adaptive management.
- Coordinate with national security and foreign policy interests.
- Develop coastal and marine spatial plans to create a more integrated, comprehensive, ecosystem-based approach to planning and managing sustainable use of the oceans and coasts.

Ocean Policy.

Even more than the EU's IMP and MSFD, the National Ocean Policy is in the early stages of implementation. At this point, the National Ocean Council has been formed and Strategic Action Plans for the nine national priority objectives are being developed - with drafts expected in the summer of 2011. As such, a critical assessment of the prospects for this policy is difficult. However, it is possible to identify potential challenges that the US will need to overcome in order to ensure successful implementation. These challenges mirror those faced by the EU in their implementation of the IMP and MSFD, especially in developing coastal and marine spatial planning (particularly as regards the establishment of authority), in monitoring progress, and in building institutional capacity to implement cross-cutting policies. Additionally, the current political climate in the US poses certain challenges, in the form of budgetary uncertainty, and uncertainty over whether the policy will be continued should the 2012 elections produce a different balance of power in the legislative and executive branches.

"Even more than the EU's IMP and MSFD, the National Ocean Policy is in the early stages of implementation."

2.3 International policy framework

Despite the array of instruments in place, the governance systems in place for international waters generally lag behind those in the domestic waters of either the EU or US.[11] This partly reflects the legal and enforcement complexities inherent to management of international waters. Additionally, the sectoral manner in which policy has historically been developed has undercut the effectiveness of high seas management.[12] Connected to this, analysis indicates that the failure to halt or reverse global environmental degradation relates to inherent inadequacies of the global governance system.[13] Some of these shortcomings lie in the inherent difficulty of getting UN Member States to implement UNGA resolutions and other forms of international law.

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Key elements of the international maritime policy framework:

- Treaties (eg: UN Convention on the Law of the Sea)
- Customs and general Principles of international law
- Judicial decisions (eg: the International Tribunal for the Law of the Sea)
- Writings of non-governmental organizations (eg: the International Union for the Conservation of Nature)
- Codification of international laws (eg: by the International Law Commission, the UN General Assembly and UN Environmental Programme)
- Soft law (eg: the Code of Conduct for Responsible Fisheries)

Even in cases where international agreements exist related to the sustainable management of ocean environments, there are significant limitations. The UN Convention on Biological Diversity, for example, is limited in its jurisdictional scope, failing to regulate activities occurring in areas beyond national jurisdiction.[14] Similarly, there are gaps in its coverage and application of UNCLOS. In particular, the lack of specific legal instruments to ensure conservation of the ecosystems and natural resources of the high seas has been identified as a key failing.[15]

From a transatlantic perspective, there are surprisingly few formal venues for bilateral discussions on maritime policy between the US and EU, with collaboration focused largely in the

fisheries sector.[16] Consequently, the benefits that could be reached through formal dialogue, knowledge transfer and the sharing of best practices between the EU and US are absent, except through ad-hoc cooperation.

The following sections highlight key policy recommendations identified through the four CALAMAR Working Groups as they relate to oceans and climate change; the high seas; integrated marine policies and tools; and enhancing transatlantic cooperation on maritime issues.

3 Policy recommendations related to oceans and climate change

Scientific consensus indicates that climate change is occurring and that human activities play a substantial role in exacerbating the problem. In the absence of urgent and sustained action, climate change will likely have a substantial negative effect on the world's economic, biophysical and human systems in the decades ahead. This is underscored by the major role that oceans play in global climate systems, as well as the particular vulnerabilities to climate change impacts faced by residents of coastal regions.[17]

While it is true that climate change is a global challenge requiring the collective action of the international community, the EU and US are uniquely positioned to play a major role in addressing the issue. To this end, there are a number of cooperative actions that the EU and US can take to improve transatlantic cooperation. In the following sections, policy recommendations are described in three main areas, as identified by the CALAMAR Oceans and Climate Change Working Group: 1) transatlantic information exchange and collaborative activities, 2) mitigation strategies and initiatives and 3) adaptation strategies.

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3.1 Transatlantic information exchange and collaborative activities

The challenges posed by climate change will require enhanced understanding of impacts and vulnerabilities, as well as the development of risk assessments and adaptation strategies. Improved dialogue through the establishment of new platforms, as well as enhanced procurement and sharing of information between the EU and US will help develop and strengthen the tools and approaches needed to better address the impacts of climate change. Potential actions in this regard include enhancing communication with a focus on sharing information, or enhancing implementation of global ocean observation systems.

3.2 Mitigation strategies and initiatives

A concerted effort in both the EU and US is needed to increase mitigation strategies and initiatives, including enhanced research, development and adoption of ocean-based renewable energy, as well as efficient review and permitting schemes**.** Expertise on ocean-based renewable energy research should be leveraged, while policies could be established to encourage cooperation amongst an array of stakeholders on the issue. Such activities should take into consideration the best information available for determining environmental

impacts and identifying priority areas and information gaps, while designing conflict resolution devices for siting and development. Furthermore, the EU and US should require that all publically funded environmental and technical data related to offshore renewable energy research be placed within the public domain.

Additionally, the contribution of maritime industries to global greenhouse gas emissions is both substantial and increasing. As such the EU and US need to implement effective emission mitigation measures.[18]. Many ports in the EU and US are already taking steps in this regard, but transatlantic cooperation could accelerate and improve this process, through dialogue at the governmental level and among port and maritime interest groups.

3.3 Adaptation strategies

The increasing impacts of climate change threaten to exceed the existing adaptation capacities of coastal communities and ocean management systems. The EU and US will benefit from increased cooperation, coordination and collaboration on the development of flexible adaptation strategies and funding mechanisms, including ecosystem-based approaches. The development of these strategies will need to engage a broad array of stakeholders to ensure that they are practical, innovative and resilient. These strategies will rely heavily upon the availability of adequate scientific data, and will need to be based upon integrated, ecosystem-based management approaches. The involvement of experts in collaboration with maritime trade associations and other maritime clusters is also of significant importance.

4 Policy recommendations related to the high seas

The vast majority of the North Atlantic Ocean[19] is classified as “area beyond national jurisdiction” (ABNJ, or “high seas”). Management and governance of ABNJ in the North Atlantic lags far behind the management and governance systems in place for domestic waters of the US and EU. As such, there are a number of steps that can be taken in the near-term to develop a sound framework for long-term transatlantic cooperation on ABNJ issues. Drawing on the conclusions of the CALAMAR High Seas Working Group, policy recommendations are described in three main areas: 1) impact assessments, 2) identifying, managing, and protecting significant and vulnerable marine areas and 3) high seas governance.

4.1 Impact Assessments

Impact assessments in ABNJ are required by a variety of international instruments and becoming increasingly seen as customary law.[20] Nevertheless, implementation of these requirements is uneven, and there are many human activities in ABNJ for which prior assessments are not yet required under international law, including geoengineering schemes,[21] offshore energy projects, and most fisheries. An international agreement could be reached requiring prior impact assessments for activities in ABNJ that may adversely impact biodiversity. Beyond this, existing UN resolutions requiring prior assessments for bottom fisheries[22] should be better implemented – to date, no North Atlantic bottom fisheries have been assessed as required by the resolutions.

4.2 Identifying, managing and protecting significant and vulnerable marine areas

Marine areas deserving special treatment under international law are referred to as Ecologically and Biologically Significant Areas (EBSAs) and Vulnerable Marine Ecosystems (VMEs). Identifying these areas is an important first step in ecosystem based management and may, in some cases, eventually contribute to a larger high seas process of marine spatial planning (MSP). As of yet, there is no MSP on the high seas, and there is no North Atlantic-wide, systematic and coordinated process for identifying and adopting cross-sectoral management measures for EBSAs and VMEs. EU/US collaboration on such a process could ensure they are evaluated and designated based on larger, basin-scale patterns of biodiversity, ecosystems, and other biogeographic characteristics.[23]

"Management and governance of ABNJ in the North Atlantic lags far behind the management and governance systems in place for domestic waters of the US and EU"

Important progress in protecting marine areas has been undertaken by the OSPAR Commission, which has established six marine protected areas (MPAs) in ABNJ. The EU and the US should encourage their appropriate internal authorities to cooperate regarding the management and conservation of the OSPAR marine protected areas and further EBSAs in ABNJ**.** There are further opportunities to collaborate in the North Atlantic outside of OSPAR,[24] Such as in increasing understanding of the activities and potential threats to the Sargasso Sea and other ecologically important areas in the North Atlantic, using it as a chance to gain practical experience in establishing High Seas Marine Protected Areas.

4.3 High Seas governance

Because governance of the high seas is based primarily on UNCLOS, which is informed by a number of entities and processes having a mandate with regard to maritime-related issues[25] implementation is currently sectorally and regionally fragmented. The need for promoting coordinated and integrated management approaches on the high seas is becoming increasingly clear, as ever more scientific knowledge of open ocean and deep sea habitats shows the fragility, vulnerability, and degradation of many of these ecosystems.

Improving regulations for international shipping is another important step toward bettering high seas governance, including extending the applicability of all relevant international requirements on ship safety, labor and environmental protection to all high seas vessels, especially fishing vessels.

Other options for improving high seas governance include establishing a joint science and policy initiative to provide for regular discussion on areas of potential cooperation. A North Atlantic partnership could be seen as a test for initiatives that could be applied in other geographic areas, and could consider issues like enhancing maritime domain awareness (MDA)[26] to cover all maritime activities in the North Atlantic.

Broadly, the EU and US should promote the adoption of a UNGA declaration or UNCLOS implementation agreement that provides a unified articulation of the modern principles of ocean governance currently expressed across a number of relevant frameworks and instruments. The EU and US should also consider cooperation to enhance monitoring and surveillance in ABNJ.

5 Policy recommendations related to integrated marine policies and tools

As previously established, sectoral fragmentation has produced poor management that fails to effectively regulate the array of activities occurring in marine areas, particularly with regards their impact upon ecosystems. In recent years, however, several countries have begun developing integrated planning and management approaches that aim to address this deficiency. By focusing on and addressing the impacts of the entire suite of activities occurring in a specific place, these integrated, common sense approaches to management, such as Marine Spatial Planning (MSP)[27], can help promote sustainable ocean use.

In the following sections, policy recommendations for achieving and improving the implementation of MSP are described, as identified by the CALAMAR Integrated Marine Policies and Tools Working Group. They are organized around the following major elements of a MSP process: 1) Initial conditions, 2) Planning, 3) Implementation and 4) Monitoring and evaluation.

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5.1 Initial conditions

MSP must be implemented with the prevailing initial conditions in mind, as these will affect the pace at which MSP proceeds in different regions. These initial conditions include:

- **The relative strength of biological, social and political drivers for change**: including but not limited to offshore renewable energy, national security activities, biodiversity conservation efforts, and future impacts of climate change.
- **Establishing Authority:** The problems MSP seeks to address are urgent and MSP should be initiated as soon as possible, using whatever authority currently exists or is politically feasible. Ultimately, a legislative mandate for MSP is ideal. Furthermore, transboundary cooperation must be practices when human acitivites have transboundary impacts.
- **Existing incentives or efficiencies:** Implementing MSP entails upfront costs, but will ultimately lower costs through regulatory and analytical efficiency. MSP should be developed with an explicit commitment to creating these efficiencies while ensuring critical environmental reviews.
- **Financing mechanisms**: To accommodate the upfront costs of MSP, public-private partnerships should be explored as funding mechanisms, including the use of resource rents to cover management costs.

5.2 Planning

While flexibility to reflect regional contexts is important to successful MSP implementation, there are a number of essential planning steps which should be part of any MSP process. These include:

- **Stakeholder participation in MSP:** Stakeholder participation should be encouraged through throughout the MSP process—from goal and objective setting through planning and implementation, monitoring and evaluation, and adaptation.

- **Pre-planning:** A detailed pre-planning approach is needed by implementing authorities, including: organization of a MSP team; Identification of necessary resources to support the planning effort; Specification of the boundaries and time-frame for planning; Identification of a set of principles; Agreement on a set of general goals; Specification of a set of clear and measurable objectives; and a strategy for periodic evaluation and updating.
- **Data management:** Marine spatial plans, and the processes that underlie them, should be constructed on the basis of the best available science at the time of plan development and be designed to be adaptive.
- **Future orientation:** MSP should not only be concerned with existing conditions and maintaining the status quo, but should reveal possible and preferred future scenarios for how the marine area might look in 10, 15, and 20 years. The alternatives considered when establishing MSP measures must be broad enough to reflect reasonable uncertainty.
- **The Marine Spatial Management Plan:** The marine spatial management plan identifies specific measures that will produce a preferred future through explicit decisions about the location and timing of human activities. To the extent practicable, all relevant sectors need to be accounted for in the marine spatial management plan, with special effort devoted to including fisheries because of their economic and environmental relevance. The plan must be as user-friendly, inclusive and transparent as possible.

5.3 Implementation

The roles and responsibilities of the various parties in a marine spatial plan must be clearly defined, realistic and achievable, and parties must be accountable from the beginning. This must be enunciated at the start of the planning process and fully developed during early drafting stages.

One method of creating necessary accountability is to establish a marine spatial planning governance body responsible for implementation that can be held accountable or hold others accountable. This should be implemented in the initial implementation steps of a marine spatial plan and should be ongoing throughout the implementation and monitoring and evaluation phases, in careful coordination and partnership with implementing authorities.

5.4 Monitoring and Evaluation

A properly designed monitoring program is essential for determining progress toward a desired future ecosystem state through MSP, with successful monitoring requiring a clear determination of what should be monitored and why. State-of-the-system monitoring involves documenting spatial and temporal variability in ecosystem components and thus ideally relies on consistent long-term data from a network of sites. Performance monitoring aims to detect any changes in ecosystem status caused by specific management actions in the MSP process. This monitoring requires indicators of:

- Clearly specified and measurable objectives
- Clearly specified indicators and targets
- Clearly specified linkages between objectives and management measures
- Compliance with regulations
- Ecosystem pressures (the object of management action)

- Status of the ecosystem and human contributions and vulnerabilities affected by these pressures

Evaluation of monitoring information in order to improve the next round of MSP is an often-neglected step. Without a truly iterative MSP, there is no assessment of indicator status, performance, or compliance information, and thus no learning is built in to the process. Dedicated scientific staff, including both natural and social scientists, with regular monitoring and evaluation reporting requirements, need to be involved in the MSP process.

Additionally, the MSP governance body should develop and commit to regular reporting on monitoring and evaluation in a manner understandable to decision making authorities, politicians, and the public. High profile, clear, and consistent reporting (e.g., such as in a report card or dashboard format) should help to educate the engage the public.

5.5 Transatlantic dialogue

As the implementation of MSP in the EU and US progresses, there will be an increasing need to share information on best practices, lessons learned and other experience relevant to policymaking. This could be addressed through a regular transatlantic dialogue to advance EU and US mutual interests in ocean governance and marine spatial planning**.**

6 Policy recommendations related to strengthening EU/US transatlantic cooperation

Since the EU Integrated Maritime Policy (IMP) and the US National Ocean Policy (NOP) express similar interests in managing activities in the Atlantic, concerted efforts to enhance communication between the EU and the US could prove beneficial for both parties.

The following have been identified by the CALAMAR EU/US Transatlantic Cooperation Working Group as four areas with opportunities for improving to Atlantic Ocean management and conservation: 1) harnessing scientific capacity for coordinated policy action and integrated assessment, 2) developing environmentally sustainable maritime technologies and practices in shipping, fishing and energy, 3) improving the monitoring, control and surveillance of ocean activities and 4) increasing the international influence of the EU and US by cooperating on international maritime policy.

6.1 Harness scientific capacity for coordinated policy action and integrated assessment

In order to capitalize on the extensive research capacity of the EU and US, there must be a concerted effort to facilitate scientific collaboration and translate science into policy, particularly through coordinated funding and foci in transatlantic maritime research.

To date, analysis of the ocean environment, as well as human impacts on that environment, has mostly been carried out in a sectoral fashion. As such, the EU and US should collaboratively conduct a fully integrated assessment of coastal and ocean areas for the North Atlantic, which could form the basis for a more effective integrated policy, including MSP for coastal and marine activities, and the development of sustainable economic growth in the Atlantic.

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An integrated assessment could benefit from the development of high resolution mapping of the ocean floor, particularly in highly productive or sensitive areas. The EU and the US are both engaged in developing high resolution maps in selected areas and efforts should be made to coordinate this work within a coherent program covering the North Atlantic.

There is also a need to for the EU and US to enhance communication and transparency between their respective institutions and agencies involved in maritime governance. This will increase awareness of maritime policy activities taking place, specifically regarding integrated assessment work being carried out under the IMP, EU Common Fisheries Policy, EU Environmental Policy and EU shipping policy, as well as by the NOC in the US.

6.2 Environmentally sustainable maritime technology and practices for greener outcomes in shipping, fishing and energy

The development and application of technology that uses less energy and resources, produces less pollution, and has generally less negative impacts on ecosystems, is an important area of research and development for both the EU and US. Progress is already being made on offshore renewable energy development and the shipping and fishing industries are taking important steps to lower their carbon footprint. However, these efforts are not being coordinated, and public/private cooperation is needed to foster the application of green technology across maritime enterprise. To facilitate this growth, the EU and the US could work together to create economies of scale by having coordinated development programs for green maritime technology.

There is an immediate need for dialogue on employing sustainable maritime technologies to create win-win situations in terms of environmental, socio-economic and technological benefits. This could be addressed through enhanced exchange best practices in environmentally sustainable approaches to governance in shipping, fisheries, energy development, sea-bed exploration and exploitation, and combating pollution and marine debris.

6.3 Monitoring, control and surveillance

Monitoring, control and surveillance (MCS) is increasingly being viewed as a tool to combat illegal, unregulated and unreported (IUU) fishing, a growing area of concern. The EU, US and their relevant maritime control agencies should collaborate and share data with appropriate authorities such as the International Criminal Police Organization (INTERPOL).

Both the EU and the US contribute to the International Monitoring, Control and Surveillance Network (IMCS Network), which involves the exchange of information to battle global IUU fishing. A framework exists for mutual assistance between the EU and the US on IUU, however cooperation must be strengthened in order to make it operational. One area of key interest is improving programs that monitor imports to detect IUU products. Much could be gained from creating a joint approach between the EU, US, and other major import markets for fish, such as Japan. Currently the US and EU systems for detecting IUU imports are different. Although the systems do not need to align completely, there are data and lessons to be shared from both sides. Furthermore, efforts to combat IUU fishing stand to benefit immensely should the EU and US leverage their respective technical expertise by improving information sharing, especially for combating IUU fishing.

Additionally, the EU and the US should cooperate further to improve maritime monitoring, control and surveillance standards within the IMO.[28] The key area identified where standards need improvement is in Particularly Sensitive Sea Areas (PSSA), in addition to guidelines for

offshore ports and energy facilities among other installations. Also, the current exemption of fishing vessels under 24m in length from IMO reporting limits effective surveillance and control, and may pose added threats to maritime security.

6.4 International Influence

The US and EU are generally aligned on issues of maritime governance, but further co-operation could enhance their influence over outcomes at international and multilateral fora.[29] As the EU and US are strong players at multinational environmental, fishing, shipping and maritime management fora, their influence could be leveraged through greater bilateral coordination on key issues before engaging with other parties at multilateral or international fora.

Given the heavy amounts of EU and US investment in development aid, it is essential these funds be used to support environmentally responsible approaches to maritime management, particularly with regards to coastal climate change adaptation. To this end, the EU and US should work to build capacity within development agencies.

7 Next steps

Despite the significant challenges faced by the EU, US, and other countries around the world as they work to develop integrated maritime governance frameworks, there are clear opportunities for next steps in enhancing collaboration and developing cross-sectoral and integrated approaches through bilateral, multilateral, and international fora. Through the CALAMAR dialogue, the EU has established the foundation for a regular transatlantic dialogue on this emerging issue to address the surprising lack of coordination between the EU and US on development and implementation of cross-cutting approaches. Furthermore, while domestic legislation is evolving toward a more integrated approach, there is still a gap in coordination at the international scale, particularly in the management of the high seas.

The results of the CALAMAR dialogue aim to provide a starting point for further discussion, which will be vital in fostering improved maritime governance for the EU and US, as well as other key global actors, such as China and Brazil. Both the Rio+20 United Nations Conference on Sustainable Development in Rio de Janeiro (June 2012) and the Expo 2012 in South Korea (May-August 2012) offer opportunities to increase visibility and possibly launch a permanent dialogue based on the following cross-cutting recommendations identified in the CALAMAR dialogue:

- Advancing and exchanging ocean science information
- Encouraging dialogues and exchange of information about strategies for adapting to climate change, marine spatial planning, developing environmentally sustainable technology
- Protecting critical ecosystems and taking steps to combat IUU fishing
- Strengthening EU/US cooperation and coordination within existing international fora

Beyond promotion and achievement of the policy recommendations identified in this report, the dialogue commenced by CALAMAR could be sustained through a number of methods, including through private/public events, such as the forthcoming conference series ‘Sustainable Oceans: Reconciling Economic Use and Protection’.[30]

The participating experts of CALAMAR tackled a broad range of issues with the goal of addressing economic, environmental and social aspects of complex problems surrounding the impacts of climate change, management and protection of the high seas, strengthened development of marine policies and tools – especially marine spatial planning – and lastly, opportunities to strengthen the bilateral cooperation between the EU and US. Policy recommendations outlined in this report reflect the results of each working group as voiced in their summary reports. This collaboration aims to provide sound options and recommendations that will help further the work of the public and private sectors, civil society and other relevant actors in the transatlantic and international efforts to develop more sustainable approaches to use and manage the world's marine resources.

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1 The term "transatlantic" is used in this report to mean interactions between the EU and US.

2 For a more detailed description of the relevant policy frameworks at place in both the EU and US, please see the first CALAMAR report: Cavalieri et al, 2011.

3 For a general overview of problems stemming from sectoral oriented policy, see: Underdal, 1980, pp. 163-166, UNGA, 2006. For overviews specific to the EU, see: Markus et al, 2011, pp. 61-62; Juda, 2007, p. 261; Douvere, 2008. For overviews specific to the US see: Cincin-Sain & Knecht, 2000; Pew Ocean Commission, 2003.

4 European Commission. 2007. 575 final. For an up to date description of the IMP, please see the first CALAMAR report: Cavalieri et al, 2011.

5 European Commission, 2010a. 2020 final.

6 Markus et al, 2011, pp. 87-88.

7 Juda, 2010, p. 39.

8 Ehler and Douvere, 2009, pp. 27-28.

9 The White House Council on Environmental Quality. 2010a.

10 For more on the National Ocean Policy, see the first CALAMAR report : Cavalieri et al 2011.

11 Rochette, J., 2009.

12 See for example: UNGA, 2006; Davies et al, 2007; Beddington et al, 2007; Cullis-Suzuki, S. and D. Pauly, 2010;

13 UNGA, 2010.

14 Convention on Biological Diversity, Art. 4.

15 Hart, 2008, pp. 3-7

16 See the first CALAMAR report: Cavalieri et al, 2011.

17 For more on coastal vulnerability see: Harley et al, 2006; Nicholls et al, 2007.

18 For example, a 2010 report by the European Commission's Joint Research Council estimated that CO2 emissions from marine shipping represent up to 5% of global emissions. See: European Commission, 2010b, p. 3.

19 Defined as the Atlantic Ocean north of the equator.

20 Relevant instruments include UNCLOS, the UN Fish Stocks Agreement, and UN Resolutions 61/105 and 64/72, which are relevant to bottom fisheries.The International Tribunal for the Law of the Sea recently affirmed that the obligation to conduct prior impact assessments can be regarded as a general requirement of customary international law.

21 An example is carbon capture and storage. Although the London Convention recently adopted an assessment framework for research related to ocean fertilization (after prohibiting commercial activities), other geoengineering schemes will likely be proposed as climate mitigation opportunities raise more and more interest.

22 Of relevance are UN resolutions 61/105 and 64/72.

23 UN resolutions 61/105 and 64/72 require States to identify areas where vulnerable marine ecosystems" (VMEs) are known or likely to occur and manage bottom fishing to prevent significant adverse effects on VMEs, or not authorize them to proceed. While some progress has been made toward implementing these resolutions by NAFO and NEAFC in the North Atlantic, much remains to be done.

24 For example, the Sargasso Sea Alliance, a new initiative by the UK and Bermuda governments to increase cooperation for the conservation of the Sargasso Sea ecosystem is a good example of a site specific area-based management effort that may provide insight into opportunities to create comprehensive protection measures in ABNJ.

25 Examples include the IMO (transportation) and FAO (fisheries).

26 MDA can be defined as "effective understanding of anything associated with the global maritime domain that could impact…security, safety, economy, or environment". US Department of Homeland Security, 2005, p. ii.

27 Throughout this chapter, the terms "marine spatial planning (MSP)," "coastal and marine spatial planning (CMSP)," and "maritime spatial planning (MSP)" will be used interchangeably to describe these new integrated planning and management approaches. The first two are common terms used in the US and the latter is used primarily in the EU.

[28] The EU is not a member of the IMO, however it can be represented via the governments of the Member States

[29] These include Regional Fisheries Management Organization (RFMO) meetings, the IMO, Convention on International Trade in Endangered Species (CITES), International Whaling Commission (IWC) and more

[30] The series is hosted by the Dräger Foundation, in cooperation with the Earth Institute of Columbia University, the European Commission Directorate-General for Maritime Affairs and Fisheries. The first conference is planned for 29 June to 1 July, 2011. In part, the conference aims to facilitate the creation of a European Oceans Commission to foster cooperation with the US Joint National Ocean Commission. For more information, see: http://www.draeger-stiftung.de/en/foundation-programs/conferences-2011/sustainable-oceans.html

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9 Appendix A: CALAMAR Working Group members

The members of the four CALAMAR project working groups are listed below.

High Seas

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Jeff Ardron
Salvatore Arico
Peter Auster
Matthew Gianni
Kristina Gjerde
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Ana Ruiz
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EU/US Transatlantic Cooperation

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Andrew Rosenberg
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Rebecca Lent
Charlotte Mogensen
Diane Regas
Francois Simard

10 Appendix B: CALAMAR Working Group Policy Recommendations

A complete list of the recommendations developed by the four CALAMAR project working groups appears below.

CALAMAR Oceans and Climate Change Working Group Recommendations

- ✓ Organize a Transatlantic Policy Dialogue on Climate Adaptation in Coastal Areas and in Oceans/Seas to bring together the experiences of the two regions, focusing on emerging best practices and fostering new collaboration among US and European local, regional, and national leaders on both sides of the Atlantic by the end of 2012.
- ✓ Develop a Transatlantic Platform to support sharing of information and broad dissemination of best practices, scenario building, ecosystem services, and adaptation responses and resiliency by the end of 2012.
- ✓ Commit to: (a) designating and supporting national and regional agencies, including national and regional research organizations with responsibilities for implementing an ocean observing system; (b) establishing effective partnerships between their ocean research and operational communities towards implementation; and (c) engaging in timely, free and unrestricted data exchange.
- ✓ Support government, business and nongovernmental organizations in enhancing development of ocean-based renewable energy and efficient review and permitting schemes, identifying scientific and information gaps, and advancing research and development of new technologies for extraction of renewable energy from the ocean.
- ✓ Require all environmental and technical data related to offshore renewable energy research supported by public funds be placed in the public domain.
- ✓ Expand US and EU dialogue at the governmental level and among port and maritime interests groups to develop and promote technical and market-based measures to reduce ship and port emissions that can be implemented by the ship owners and ports in the US and EU on their fleets, and do not require IMO consensus and conventions or regulation.
- ✓ Develop flexible adaptation plans and funding mechanisms, including ecosystem-based approaches, identifying actions necessary to maintain viable private property and casualty insurance markets for coastal communities, and integrate climate change into due diligence for investment and lending.
- ✓ Engage surveyors, engineers, geoscientists, and coastal planners to facilitate the development of practical and creative solutions to the dilemmas posed by changing coastlines and marine ecosystems.
- ✓ Utilize planning tools in the EU and the US to accelerate the development of coastal and marine spatial plans that would effectively increase the resilience of the most ecologically critical and productive ecosystems and would also highlight the management priorities that most need to be addressed.

CALAMAR High Seas Working Group Recommendations

- ✓ Work within the UN to secure agreement to ensure that any activity, which may have a significant adverse impact on the marine environment or biodiversity in ABNJ is subject to prior assessment by the relevant authorities of the State whose nationals propose to conduct the activity, and

- ✓ Work within the UN, North West Atlantic Fisheries Organization (NAFO) and North East Atlantic Fisheries Commission (NEAFC) to fully implement the requirements for prior assessment in UN resolutions 61/105 and 64/72 for all high seas bottom fisheries in the North Atlantic.
- ✓ The EU and US should work together to accelerate progress in identifying possible Ecologically or Biologically Significant Areas (EBSAs) and Vulnerable Marine Ecosystems (VMEs) using the criteria established by the Convention on Biological Diversity (CBD) and UN Food and Agricultural Organization (FAO) through regional collaboration, including joint workshops for the North Atlantic.
- ✓ The EU and the US should promote cooperation internally within competent authorities regarding the conservation and management of the OSPAR marine protected areas in areas beyond national jurisdiction.
- ✓ Promote cooperation between the EU and the US and within competent authorities regarding the conservation and management of EBSAs beyond national jurisdiction in the North Atlantic.
- ✓ Seek opportunities to gain practical experience in establishing High Seas Marine Protected Areas (MPAs) in the North Atlantic through regional area-based management initiatives such as the Sargasso Sea Alliance seeking to enhance conservation of the Sargasso Sea.
- ✓ Improve implementation of UN Resolutions 61/105 and 64/72, which require States to manage bottom fishing to prevent significant adverse impacts on Vulnerable Marine Ecosystems (VMEs), or not authorize such fisheries to proceed.
- ✓ Support efforts to establish a comprehensive planning process for MSP on the high seas in the North Atlantic, using OSPAR and developing a similar process for the NW Atlantic.
- ✓ Support efforts at the UN in this direction to support a global process of establishing MSP on the high seas.
- ✓ Extend the applicability of relevant international requirements/standards on ship safety, labor, and environmental protection to all classes of vessels authorized to operate on the high seas, in particular fishing vessels;
- ✓ Improve flag state responsibility on the high seas with respect to obligations under the United Nations Convention on the Law of the Sea (UNCLOS) and other relevant international agreements, including flag State obligations with respect to the conservation and management of fisheries.
- ✓ Establish an EU/US collaborative science and policy initiative to discuss areas of potential cooperation on a regular basis, including a joint declaration of principles, bringing together the relevant authorities with a view towards integrated oceans management for the North Atlantic basin.
- ✓ Consider joint EU-US agreements to enhance maritime domain awareness (MDA)[31] for the North Atlantic that cover all maritime activities, including fisheries;
- ✓ Implement innovative and effective surveillance and monitoring schemes in the high seas, especially within marine protected areas (MPAs), for maritime activities, including fisheries.

CALAMAR Integrated Marine Policies and Tools Working Group Recommendations

- ✓ Implement MSP to address and understand collectively the spatial opportunities and constraints for various drivers of human activities including siting offshore renewable

energy technologies, national security activities, and biodiversity conservation efforts, as well as to better plan for future impacts of climate change.

- ✓ The problems MSP seeks to address are urgent, therefore MSP should be initiated with whatever authority currently exists or is politically feasible.
- ✓ If initiated through executive action, evaluation of the existing legal authority, participation of key stakeholders, cooperation among competent authorities and relevant institutions, and adjustment of existing regulations to conform to MSP all are important for a successful MSP effort.
- ✓ A legislative mandate for MSP is ideal in order to integrate authorities, establish and achieve common objectives, and improve overall efficiency.
- ✓ Transboundary cooperation in MSP should be practiced when human activities have transboundary effects on marine ecosystems.
- ✓ Develop MSP with an explicit commitment to create efficiencies in the regulatory process, while ensuring critical environmental reviews.
- ✓ Explore public-private partnerships as mechanisms to support initial costs and consider resource rents as mechanisms to fund costs of planning, implementing, monitoring and evaluating, and adapting marine spatial plans.
- ✓ Stakeholder participation should be encouraged throughout the MSP process—from goal and objective setting through planning and implementation, monitoring and evaluation, and adaptation.
- ✓ Establish a detailed pre-planning approach to guide the MSP process.
- ✓ Rather than delaying the initiation of the process until all necessary data are compiled, marine spatial plans, and the processes that underlie them, should be constructed on the basis of the best available science at the time of plan development and be designed to be adaptive.
- ✓ MSP should not be limited to defining and analyzing only existing conditions and maintaining the status quo, but should reveal possible and preferred alternative futures for how the area might look in 10, 15, and 20 years.
- ✓ To the extent practicable, all relevant sectors need to be included and taken into account in the marine spatial management plan. Special effort should be devoted to including fisheries in marine spatial plans because of their economic and environmental relevance. The overall MSP process should be as simple, user-friendly, inclusive, and transparent as possible in order to engage and obtain buy-in from the sectors.
- ✓ Roles and responsibilities of the various parties in a marine spatial plan must be clearly defined, realistic and achievable, and parties must be accountable from the beginning.
- ✓ Establish an inter-ministerial working group or marine spatial planning team responsible for planning and establish a marine spatial planning governance body responsible for implementation that can be held accountable or hold others accountable.
- ✓ The MSP governance body should identify a core set of ecosystem indicators, and guided by a logical rationale for the management actions (e.g., IEA, SEA), should take ownership of monitoring and reporting.
- ✓ Dedicated scientific staff, including both natural and social scientists, with regular monitoring and evaluation reporting requirements, need to be involved in the MSP process.

- ✓ The MSP governance body should develop and commit to regular reporting on monitoring and evaluation in a way that is understandable to decision making authorities, politicians, and the public.
- ✓ A regular transatlantic dialogue should be established to advance EU and US mutual interests in ocean governance and marine spatial planning.

EU/US Transatlantic Cooperation Working Group Recommendations

- ✓ Coordinate funding and focus in transatlantic maritime research.
- ✓ Conduct integrated assessment for the North Atlantic.
- ✓ Coordinate seabed mapping efforts.
- ✓ Develop communication and transparency between US and EU institutions and agencies involved in maritime governance.
- ✓ Exchange best practices in environmentally sustainable approaches to maritime governance shipping, fisheries, energy development, and combating pollution and marine debris.
- ✓ Improve information sharing, especially to combat illegal, unreported and unregulated (IUU) fishing.
- ✓ Strengthen MCS standards within the International Maritime Organization (IMO).
- ✓ Increase coordination at international fora.
- ✓ Build capacity within development agencies.

31 The term Maritime Domain Awareness refers to the effective understanding of anything associated with the maritime domain that could impact the security, safety, economy, or environment of a nation. Conservation enforcement should be seen in the broader context of other Monitoring Control and Surveillance (MCS) related funding and activities.