



WORLD OCEANS SUMMIT

February 22nd-24th, 2012 • Capella Resort, Singapore

Welcome Reception

February 22nd

6:30pm	Welcome cocktail reception
6:45pm	Welcome remarks Charles Goddard, Editorial Director, Asia Pacific, Economist Intelligence Unit
7:00pm	Special remarks Neill Duffy, America's Cup Event Authority
7:10pm	Welcome keynote Sylvia Earle, Explorer-in-residence, National Geographic Society
8:00pm	Close

World Oceans Summit, day 1

February 23rd

8:00am	Registration and refreshments
9:00am	Chairman's remarks John Micklethwait, Editor-in-chief, <i>The Economist</i>
9:15am	OFFICIAL OPENING OF THE EVENT Teo Chee Hean, Deputy Prime Minister, Coordinating Minister for National Security and Minister for Home Affairs, Government of Singapore Moderator: John Micklethwait, Editor-in-chief, <i>The Economist</i>
9:35am	SPECIAL VIDEO MESSAGE HRH The Prince of Wales, United Kingdom
9:45am	OPENING KEYNOTE Ólafur Ragnar Grímsson, President, Iceland Moderator: John Micklethwait, Editor-in-chief, <i>The Economist</i>
10:25am	TROUBLED SEAS: OCEANS AND THE OCEANS ECONOMY What we know about our oceans, and what we don't—and what important economic things oceans do for us. Introduction: Geoff Carr, Science Editor, <i>The Economist</i>
10:30am	DISCUSSION: The state of the oceans Oceans regulate our climate and replenish our oxygen. They sequester carbon dioxide. They are a store of extraordinary biodiversity. They are critical for food, energy, trade, transport and international security. Yet, despite being essential to life on earth, and to we humans, oceans are in danger. The cumulative impact of human activity on our seas is far greater than previously understood—and there remains still a Humboldtian task of scientific discovery before us. Still, we already know enough about the consequences of climate change, pollution and over-fishing on the chemical composition of the oceans, on marine biodiversity, on coastal ecosystems and on the hydrological cycle to make better, more informed decisions about stewardship now. <ul style="list-style-type: none"> • What services do oceans provide, and why is it important to recognise these services? • How is human activity changing the oceans? What is the impact of climate change on our seas? • What are the pressures on coastal ecosystems of accelerated development and climate change? • How are fresh-water and oceans issues linked? Zhou Mingjiang, Professor, Institute of Oceanology of the Chinese Academy of Sciences Stephen Palumbi, Director, Hopkins Marine Station, Stanford University Ove Hoegh-Guldberg, Director, Global Change Institute, University of Queensland Moderator: Geoff Carr, Science Editor, <i>The Economist</i>
11:10am	Coffee and networking break

11:40am

DISCUSSION: Why value the oceans?

The oceans are the most undervalued of our natural resources. To assess the impact of burgeoning human activity on the oceans we need to understand, in addition to conventional measures of economic activity, how and why nature should be on the balance sheet too. Few, if any, standard economic measures include the oceans; less still move beyond simple economic metrics to capture “non-market” valuations such as the protective services of reefs and mangroves, or the importance of the seas to many cultures. An explicit valuation of ocean ecosystems and biodiversity could be a powerful tool for decision-makers framing conservation and stewardship issues alongside standard economic measures of value—and serve to minimise mismanagement and misuse.

Briefing: Pavan Sukhdev, Founder and Chief Executive Officer, **GIST Advisory** and Lead Author, TEEB, **United Nations Environment Programme**

TEEB, The Economics of Ecosystems and Biodiversity, is a ground-breaking study of natural capital and its value to us. Several similar initiatives, though smaller in scale and scope, are under way for the oceans.

- Valuing ocean ecosystem services is complex and daunting. How might it best be done?
- How can valuations be used to address urgent oceans problems and determine how to organise economic activity appropriately around marine resources and spaces?
- How can such assessments be integrated into the policy process?

Astrid Scholz, Executive Vice President, **ECOTRUST**
Mary Ruckelshaus, Director, National Capital Project, **Stanford University**

Moderator: James Astill, Energy and Environment Editor, *The Economist*

12:30pm

INTERVIEW: An underwater conversation live from the Great Barrier Reef

Richard Fitzpatrick, independent filmmaker and scientist
Ove Hoegh-Guldberg, Director, Global Change Institute, **University of Queensland**

Moderator: Geoff Carr, Science Editor, *The Economist*

12:40pm

Lunch

1:40pm

A BROADER OCEANS DIALOGUE

In the face of further intense “industrialisation” of the seas, the conservation dialogue around oceans can be curiously one-dimensional. The trend on land is towards broader partnerships between governments, businesses and interest groups—in particular harnessing the power of the private sector to act in innovative ways as stewards of the environment. As yet, there are few such examples for the seas.

Introduction: Charles Goddard, Editorial Director, Asia-Pacific, **Economist Intelligence Unit**

1:45pm

DISCUSSION: Economic growth and oceans conservation—Are they reconcilable?

Momentum is building among the environmental, academic, government and—most recently—business communities to address the health of the oceans. But it is painfully slow. Oceans as an issue remains under-represented, and the protagonists invariably polarised. The conservation community is often uncomfortable with the idea of expanded use of marine space and resources. In the corporate world and among industry policymakers too, even if there is evidence of new thinking, there is insufficient recognition yet of the impact of their activities and decisions on the seas. At the heart of the divide are pressing social and economic issues: growth, food, space, jobs, poverty, opportunity—most of them pressures which emanate on and from the land. A fresh oceans dialogue focusing on the dual priorities of growth and conservation is long overdue.

- What new strategies and partnerships are necessary to build a broader, more inclusive agenda around the oceans? How can this be accelerated?
- How is economic and commercial development around and within oceans approached with conservation in mind?
- What would expanded, responsible use of the oceans look like? How should existing and new activities be accommodated in the oceans?
- How can the impact of growing coastal urbanisation—which amplifies problems in the oceans—be minimised?
- Do “blue-economy” or blue-green initiatives contribute to sustainable livelihoods and businesses?

Opening remarks: Anote Tong, President, **Kiribati**

Peter Seligmann, Chief Executive Officer, **Conservation International**

Paul Holthus, Executive Director, **World Ocean Council**

Jason Clay, Senior Vice President, Market Transformation, **World Wildlife Fund**

Moderator: Charles Goddard, Editorial Director, Asia-Pacific, **Economist Intelligence Unit**

2:35pm

DISCUSSION: Blue business, blue economy

For industries such as fisheries, tourism and retailing, whose success depends on a stable supply of “resources” from the oceans, the business case for the sustainable use of the seas is one of enlightened self-interest. The case is similar if a little trickier in sectors such as oil and gas and shipping, whose activities could conceivably continue regardless of the health of the oceans. A host of new and sustainable business opportunities are also emerging within the “blue economy”, the marine counterpart to the terrestrial “green economy”; equally, some “green-economy” initiatives may themselves have far-reaching and positive impacts in the seas. Forward-thinking companies are pushing sustainability initiatives from the CSR desk up into the boardroom, and into the heart of their businesses. “Green” or “blue economy”, there is growing evidence that sustainability makes both good sense for business and for the environment—the oceans too.

- How can the economic potential of the oceans be realised in a sustainable way?
- How should the idea of sustainability use of the oceans be framed? What might sustainability agendas for the oceans look like? What benefits can companies gain?
- Is there a broader “corporate ocean responsibility” to which business should subscribe? Should industry, a cause of problems, be part of the solution? If so, how?
- Why are there so few companies with CSR and sustainability goals set around the oceans?

Tim Smith, Chief Executive, North Asia, **Maersk Line**

Malcolm Preston, Global Head of Sustainability and Climate Change, **PricewaterhouseCoopers**

Eric Barratt, Managing Director, **Sanford**

Anisa Kamadoli Costa, Vice President, Global Sustainability & Corporate Responsibility, **Tiffany & Co**, President, **The Tiffany & Co. Foundation**

Moderator: Charles Goddard, Editorial Director, Asia-Pacific, **Economist Intelligence Unit**

3:30pm

Coffee and networking break

4:00pm

OCEANS GOVERNANCE IN CRISIS?

The oceans are a global “commons”, with no boundaries. The great “tragedy of the commons”—the tendency for a common resource to be over-exploited—is as much about a failure of governance as other causes. International conventions such as the Law of the Sea (UNCLOS) reflect governance concepts and concerns more at home in the eighteenth century than in the twenty-first, in which claims on—and use of—ocean resources are escalating exponentially.

Introduction: Dominic Ziegler, Asia Editor, *The Economist*

4:05pm

DISCUSSION: Who should rule the waves?

The quickening impairment of the oceans brings into question the scope, relevance and effectiveness of existing governance regimes, international and national. Critical governance issues—the tragedy of the commons, mismatching mandates, lack of liability—affect both the high seas and national exclusive economic zones (EEZs). EEZs and the high seas face the shared challenge of intensifying and new uses of oceans space and resources, potentially at the expense of rich and fragile ecosystems. Meanwhile, frustrations are growing over the glacial pace of evolution of international rules, which are largely framed and influenced by the domestic interests of sovereign states. More recently, oceans NGOs have brought new and progressive perspectives to the governance debate, while industry is having to sit up and take notice too.

- Is there a crisis in international governance of the oceans?
- Is the present legal framework sound? Can it be sustained? Is it time for a new law of the sea, and if so should it address both high seas and EEZ issues?
- Could an alternative legal framework deliver better results for the oceans? If so, what form might it take, and how would it be enforceable?
- Can the present progress in the UN on strengthening the high-seas legal framework be built upon?
- With a growing number of countries achieving progress in integrated management of their coastal waters, what does this mean for national frameworks and institutions?
- What is the future for international institutions responsible for the oceans?

Spyros Polemis, Chairman, **International Chamber of Shipping**
 Kristina Gjerde, Director, High Seas Program, **International Union for the Conservation of Nature**
 Tommy Koh, Ambassador-At-Large, Ministry of Foreign Affairs, Singapore; Chairman, Centre for International Law, **National University of Singapore**
 Imen Meliane, Director, International Marine Policy, **The Nature Conservancy**
 David Miliband, Member of Parliament, former Foreign Secretary, **United Kingdom**

Moderator: Dominic Ziegler, Asia Editor, *The Economist*

4:55pm

SPECIAL GOVERNANCE FOCUS: The Arctic—Beacon of hope?

The Arctic ocean—capped by sea-ice—is becoming the focus of intense rivalry. Both Arctic border countries and others are eager to stake their claims to the ocean’s floor and resources as rising temperatures melt the sea-ice, and the ocean itself gradually opens. Largely untouched until recently, the Arctic is thought to be rich in resources—oil and gas, and biomass (fish and krill)—and, as the ice retreats, would permit shorter sea-routes between Europe, North America and Asia. But it is a fragile ecosystem, subject to new and unprecedented pressures. The eight-country Arctic Council, formed in 1996, was set up to provide an institutional framework to mediate growing economic and commercial activity in the region, and determine how this activity would co-exist with conservation of a delicate environment. It is an extraordinary governance opportunity, starting from fresh, and it has had some successes. Does it hold lessons for oceans governance more broadly?

Briefing: Gustaf Lind, Swedish Ambassador for the Arctic

Mr Lind puts the case for a new kind of oceans governance, and answers criticism of glacial decision-making

- To what extent should the Arctic be governed by strong treaty obligations and regulations? Should activity be severely limited, as indigenous communities suggest?
- What are the rights of border states versus non-border states?
- How do development and conservation co-exist? Is it realistic, in such a fragile environment, to believe they can?
- Is marine spatial planning a sufficiently robust approach to manage multiple, often conflicting potential uses?
- How should business be engaged in the Arctic, and what role should it play in the ocean's governance? What would constitute responsible use of the Arctic?

Lisa Speer, Director, International Oceans Program, **Natural Resources Defense Council**

Joshua Reichert, Managing Director, **Pew Environment Group**

Anton Vasiliev, Ambassador at Large, **Russian Representative to Arctic Council**

Robert Blaauw, Senior Arctic Advisor, **Shell International**

Moderator: James Astill, Energy and Environment Editor, *The Economist*

5:50pm

Chairman's closing remarks

John Micklethwait, Editor-in-chief, *The Economist*

6:00pm

Close of day one



National Geographic Gala Dinner

February 23rd

7:00pm

Cocktail reception

7:30pm

National Geographic Gala Dinner

7:40pm

Introduction

John Micklethwait, Editor-in-chief, *The Economist*

7:45pm

Welcome remarks

Enric Sala, Explorer-in-residence, **National Geographic Society**

Alain Delamuraz, Vice President and Head of Marketing, **Blancpain**

8:00pm

Special presentation by David Doubilet

World Oceans Summit, day 2

February 24th

8:00am	Registration and refreshments
8:30am	<p>Chairman's remarks John Micklethwait, Editor-in-chief, <i>The Economist</i></p>
8:45am	<p>DIALOGUE: Global co-operation and leadership</p> <p>There are growing signs of common purpose on the oceans—in the fight against illegal fishing and across a range of other oceans issues from biodiversity to ocean acidification. The United States is often at the forefront of these initiatives, and for half a century the Intergovernmental Oceanographic Commission under UNESCO has been bringing states together around oceans science and observation, among other things. Yet arguably the scope and pace of collaboration needs to be stepped up. Here, two policy chiefs speak about the road ahead, and the need for co-operation and leadership.</p> <p>Jane Lubchenco, Under Secretary of Commerce for Oceans and Atmosphere; Administrator, National Oceanic and Atmospheric Administration, United States Wendy Watson-Wright, Assistant Director-General and Executive Secretary, Intergovernmental Oceanographic Commission, UNESCO</p> <p>Moderator: John Micklethwait, Editor-in-chief, <i>The Economist</i></p>
9:25am	<p>BIODIVERSITY: THREATS AND OPPORTUNITIES</p> <p>Threats to oceans' biodiversity—the richest source of life on earth—is a crisis in the making. Overfishing is causing serious depletion—in some cases, collapse—of stocks; pollution run-off from agriculture, industry and human waste is creating ecological havoc along coasts and river estuaries; and climate change is altering critical parts of the ocean food chain, with consequences we have yet to fully appreciate. The situation is serious; yet restoring the oceans to health could also happen surprisingly quickly.</p> <p>Introduction: Geoff Carr, Science Editor, <i>The Economist</i></p>
9:30am	<p>DEBATE: Feeding the world—Are oceans the solution?</p> <p>At least a billion people rely on the oceans as their key source of protein and many more consume fish as part of their diet, increasingly so as incomes rise in high-growth economies such as China and India. Billowing demand is fuelling already unsustainable levels of fishing, threatening further depletion of stocks and potentially imperilling food security. One solution is mariculture, the farming of fish, which aims to substitute wild catch for raised seafood, and as some envision, fish for meat. Almost half of all seafood consumed is from farms. But here too are concerns—about pollution, the spread of disease and the reliance on smaller wild-catch fish to feed carnivorous farmed fish. Across the spectrum views can be quite polarised, from those who strongly question the idea of large-scale sustainable extraction of wildlife from the seas to those who advocate passionately the virtues of fish farming. As we head towards 9bn people, are oceans the solution?</p> <ul style="list-style-type: none"> • How much food can we reasonably extract from the oceans? Can the oceans be a primary source of food and food security? Can oceans feed the world— a “blue revolution” to equal the “green”? • Is mariculture, combined with sustainable wild catches, a solution? Are there sustainable or smart forms of mariculture? Can these be made economically viable? • How do developing countries deal with the conflict between food security and exports of seafood? <p>Daniela Pedroza Paez, Environmental Policy Director, Ministry of Environment and Natural Resources, Mexico Jerry Knecht, Founder and President, North Atlantic and P.T. Bali Seafood International Andrew Sharpless, Chief Executive Officer, Oceana Stephen Hall, Director General, The WorldFish Center Ussif Rashid Sumaila, Professor and Director, Fisheries Centre and Fisheries Economic Research Unit, University of British Columbia</p> <p>Moderator: Geoff Carr, Science Editor, <i>The Economist</i></p>

10:15am	Coffee and networking break
10:45am	<p>DISCUSSION: New solutions for fishing</p> <p>Globally, wild-catch fisheries are in crisis—environmentally and as a viable economic concern. The causes of this crisis include industrial-scale overfishing, illegal fishing, perverse subsidies and insufficient fishery management systems. These challenges may not be overcome by the current piecemeal approach to solutions, even if each solution is important and constructive in its own right. Solutions such as rights-based fishing can lead to more effective quotas and increased profitability while also protecting the marine environment. Demand-driven solutions focus on the sustainability of the seafood that retailers source and consumers buy. Others tackle subsidies to fishing fleets that lead to over-capacity and economic mismanagement. All have had measurable successes. At issue, though, is why fisheries continue to be in crisis, and whether a unified strategy or set of solutions addressing not simply sustainability but also economic growth and food security is needed.</p> <p>Briefing: Steven McCormick, President, The Gordon and Betty Moore Foundation</p> <p>A new meta-analysis on the state of global fisheries argues that some recent worst-case scenarios may be too pessimistic, even if the state of fisheries remains dire. It also suggests a new framework for solutions.</p> <ul style="list-style-type: none"> • Are there leading examples of sustainable management of fisheries where it is good for fish, good for fishermen and good for the sea? • How important is it to change consumption habits and patterns? Can the oceans be saved by eating the right fish in restaurants and buying the right fish in supermarkets? Can certification and eco-labelling make a difference? • What is the role of a reduction in, or cessation of, subsidies in ending global overfishing? • Where and when can rights-based fishery management, or catch shares, align economic incentives with conservation outcomes? • What new partnerships and alliances are needed to create a broader, multi-faceted solution capable of leading to the sustainable management of fisheries globally? <p>Kathryn Murdoch, Director of ReSource, Conference on Natural Resources, Oxford University Rupert Howes, Chief Executive Officer, Marine Stewardship Council Thomas Kraft, Chief Executive Officer, Norpac</p> <p>Moderator: Charles Goddard, Editorial Director, Asia-Pacific, Economist Intelligence Unit</p>
11:35am	<p>DISCUSSION: Making marine protection economically viable</p> <p>When well implemented and enforced, marine protected areas (MPAs) restore the health of marine life inside their boundaries, and have economic benefits within and beyond. Most marine life that is ecologically and economically important is to be found in coastal waters, where MPAs usually reside. Yet, just 1% of the surface of oceans is presently under protection, compared to 15% of land. A favoured tactic among conservationists, MPAs generate important “savings banks” for biodiversity, as well as vital publicity for the oceans. Of course, they are just one tool in a broader emerging set of strategies around integrated ocean and coastal management and governance, and are not in themselves a panacea. But setting up MPAs, and ensuring they have an appropriate economic rationale for the protecting communities, remains a key challenge.</p> <ul style="list-style-type: none"> • What are the challenges in defining prospective MPAs, particularly off the coasts of poorer countries? Why are some more effective than others? Are MPAs in the areas they would provide most benefit? • What are the drawbacks, and how should they influence our view of MPAs? • How should MPAs be integrated into broader strategies such as ecosystem-based management which are designed to reconcile biodiversity conservation with economic development? • How can MPAs be structured as investments rather than philanthropic endeavours? • What commercial activities should be permitted within MPAs? How can businesses be beneficiaries? • How scalable are they? Is a global network of MPAs possible and desirable?

	<p>Russell Reichelt, Chairman and Chief Executive, Great Barrier Marine Park Authority Enric Sala, Explorer-in-residence, National Geographic Society Ramon Jesus Paje, Secretary of Environment and Natural Resources, Philippines Brett Jenks, President and Chief Executive Officer, Rare Patricia Gallardo, Director of Corporate Social Responsibility & Sustainability, Shangri-la Hotel International Management</p> <p>Moderator: James Astill, Energy and Environment Editor, <i>The Economist</i></p>
12:20pm	<p>Lunch</p>
1:15pm	<p>KEYNOTE AND DISCUSSION</p> <p>Robert Zoellick, President, World Bank</p> <p>The need for a global common purpose around the oceans.</p> <p>Moderator: John Micklethwait, Editor-in-chief, <i>The Economist</i></p>
2:00pm	<p>DISCUSSION: The problem of pollution and marine debris</p> <p>Escalating pollution in the oceans and its impact on water quality, biodiversity and wildlife is an immediate and pressing concern, and one with a significant economic impact. Agricultural, industrial and human run-off and wastes, particularly from industrial-scale agriculture and from major cities on coasts and rivers, are causing enormous damage in coastal waters—dead zones and algal blooms, most visibly. Pollutants are also finding their way in giant plumes across the oceans themselves: discharges from China’s rivers, for example, are affecting the shores of South Korea, across the Yellow Sea. Oil spills and other impacts from human activity add misery to woe. And what of the extraordinary gyres of plastic and marine debris swirling far out at sea?</p> <ul style="list-style-type: none"> • The problems of pollution are evident, but what on earth are the solutions? • How can the vast, diffuse impact of agricultural run-off on marine water quality be tackled? • How do governments join up the often myriad agencies responsible for agriculture, industry and the land and marine environments, and focus efforts holistically on the pollution cycle? • What can businesses do to minimise their pollution footprint in both fresh water and the oceans? Is there profit to be made by doing so? Is there opportunity in pollution solutions? • How can cities minimize their impact on the oceans? Can “green-city” initiatives be helpful in this context? <p>Cecilia Nord, Vice President, Environmental Affairs, Electrolux Mike Biddle, President and Founder, MBA Polymers Doug Woodring, Managing Director, Ocean Recovery Alliance April Crow, Global Director, Sustainable Packaging, The Coca-Cola Company</p> <p>Moderator: Dominic Ziegler, Asia Editor, <i>The Economist</i></p>

2:45pm

WORKING TOWARDS SOLUTIONS

The final afternoon of World Oceans Summit is in many ways the most important and exciting. If we are to tackle the myriad causes of our troubled oceans—the market failures, irrational economic behaviour, poor governance and so on—we must do so with new and innovative solutions built around enlightened self-interest, and by a multiplicity of stakeholders. The oceans conversation must expand now from the confines of academia, NGOs, governments and international bodies—where much important progress has been made—to businesspeople and boardrooms, where small steps have been taken but bigger steps around innovation and sustainability, and responsible use of the oceans, will bring new rewards and opportunities.

Each of the working groups below will aim to tackle an area where a real difference might be made, and generate ideas for solutions. These are highly interactive sessions, each bringing together the widest group of oceans stakeholders. Thought-provoking case studies of initiatives and innovation, in and out of the oceans, will act as catalysts for discussion, while discussion leaders—experts in their field—will help shape the proceedings. The outcomes of each working group will then be relayed at the final plenum.

Moderator: Charles Goddard, Editorial Director, Asia-Pacific, **Economist Intelligence Unit**

2:50pm

Coffee and networking break

3:20pm

1. Corporate responsibility: Taking custodianship of the oceans

Why have so few companies set goals in an around the responsible use of the oceans, or adopted oceans goals in their sustainability programmes? By contrast, there is barely a Fortune 500 company that has yet to set goals around climate change, carbon footprints and sustainability in the broader context. Sustainability, indeed, is moving out of the realms of corporate social responsibility (CSR) and reputational risk into the boardroom: it is fast becoming a strategic focus for improving growth and adding value. Surely companies should be thinking now of strategies which are both good for the oceans and good for business?

- What corporate oceans initiatives are under way, and what impact are they having both on the problems they are designed to address and on companies' bottom lines?
- Why are these initiatives in place? Are they driven by CSR and reputational needs, or by the top and bottom lines? What businesses and business models put (oceans) sustainability at their core?
- What is the value of taking custodianship of the oceans? What is the business case?
- What can be done to get more companies to adopt responsible approach towards using the oceans?

Discussion leaders

Aron Cramer, President and CEO, **BSR**

Paul Holthus, Executive Director, **World Ocean Council**

Speakers

Chris Luebke, Director for Global Foresight, **Arup**

Philippe Lacamp, Head of Sustainable Development, **John Swire & Sons**

Daniel Pingaro, Chief Executive Officer, **Sailors for the Sea**

Moderator: Alex Travelli, Hong Kong Bureau Chief, **The Economist**

2. From REDD to Blue? Blue carbon and financing mechanisms for the oceans

Coastal habitats and ecosystems are on the front line of climate change. Mangroves, salt marshes and seagrass meadows are vital not only for the integrity of shorelines and coastal biodiversity—they are also a critical part of the global carbon cycle, sequestering large amounts of carbon dioxide, often referred to as “blue carbon”. The rapid destruction of coastal habitats and ecosystems is disturbing these carbon sinks, and releasing carbon dioxide. Is there a way of avoiding further destruction? The REDD+ (reduced emissions from deforestation and degradation) financing mechanism—in which economic incentives are provided to protect forests and prevent destruction of a important terrestrial carbon sink—may be a viable model for blue carbon, and for ensuring that the owners and managers of coastal habitats preserve and manage blue-carbon ecosystems.

- Could a REDD-like financing mechanism work for blue carbon? Would it accelerate protection of coastal habitats?
- How can blue-carbon ecosystems and ecosystem services be linked to sustainable livelihoods and to viable economic and commercial activities such as sustainable tourism?
- What opportunities exist to develop sustainable businesses out of blue carbon?
- How would a blue-carbon financing mechanism differ from REDD+? What political and institutional commitments would be needed to get such a mechanism moving?
- What science is needed? How would baseline carbon measures be established and priced?

Discussion leaders

Peter Boyd, Chief Operating Officer, **Carbon War Room**

Astrid Scholz, Executive Vice President, **ECOTRUST**

Speakers

Neill Duffy, **America’s Cup Event Authority**

Abyd Karmali, Global Head of Carbon Markets, **Bank of America Merrill Lynch**

Steve Lutz, Blue Carbon Project Manager, **GRID-Arendal**

Moderator: Dominic Ziegler, Asia Editor, *The Economist*

3. New solutions for fishing

Serial overfishing—the over-exploitation of new stocks as we continue to overfish fully exploited stocks—defines the state of global fishing today. Yet recent studies suggest there are proven solutions to overfishing. The conundrum appears to be that the solutions themselves are fragmented and piecemeal, whether by geography or often by their proponents, who naturally advocate their own above others. What seems to be missing is a co-ordinated, strategic and above all global response to the problem that brings the different approaches under one roof and identifies which solutions work best where. To work, and to stand a chance of rebuilding fisheries along sustainable lines, such an approach would require the broadest engagement of businesses, governments, NGOs, international institutions, scientists and, of course, fishing communities. Therein lies the challenge.

- What are the most promising approaches to preventing overfishing and rebuilding fisheries?
- How might these approaches be mapped onto the many and varied areas, and species, subject to overfishing, given different problems will require different solutions?
- What new partnerships and alliances are needed to build a broader consensus around strategic, global solutions to overfishing, and what practical steps can be taken to set this in motion?
- How are compelling global campaigns that lead to more sustainable fishing created and communicated?

Discussion leaders

Barry Gold, Program Director, Marine Conservation Initiative, **Gordon and Betty Moore Foundation**

Jack Gibbs, Director, **Prince’s Charities International Sustainability Unit**

Speakers

Stephanie Madsen, Chief Executive Officer, **At Sea Processors**

Charles Clover, Chairman, **Blue Marine Foundation**

Daniel Pauly, Professor, Fisheries Centre, **University of British Columbia**

Moderator: Charles Goddard, Editorial Director, Asia-Pacific, **Economist Intelligence Unit**

4. Climate change and coastal adaptation: Turning risks into opportunities

Climate change coupled with rapid urbanization and increases in coastal populations are adding significant risks to, and pressures on, coastal resources, peoples and countries. Erosion, inundations and extreme weather events are affecting hundreds of millions of people, as well as the coastal infrastructure and industries (tourism, shipping and trade) that sustain national economies. The loss and degradation of coastal ecosystems is increasing these risks by further exposing communities and assets to hazards. This, in turn, is being compounded by the construction of sea walls and hard infrastructure, which also affect tourism and fisheries. Adaptation in coastal areas is an urgent necessity, but how to adapt matters. Future investments in urban areas and coastal infrastructure will have a profound impact on coastlines and with them the future of half of humanity.

- What is the scope of the adaptation challenges faced by coastal communities?
- What role can coastal ecosystems play in addressing some of these challenges?
- What incentives can be used to promote conserving or restoring coastal ecosystems for their protective services?
- How can we reconcile economic development objectives and prevention of life and property losses?
- What innovative ideas can be applied to reshape coastal development?

Discussion leaders

Lynne Zeitlin Hale, **The Nature Conservancy**
Richard Sanders, Senior Catastrophe Analyst, **Willis Group**

Speakers

Jayne Plunkett, Managing Director, **Swiss Reinsurance**
Mark Kenber, Chief Executive Officer, **The Climate Group**

Moderator: James Astill, Energy and Environment Editor, *The Economist*

5. Oceans observations: Seeding a more urgent science agenda

Responsible use of the oceans, and good governance and effective management, require reliable science and data on the state of oceans themselves. In the absence of good science, rational decisions about human activities in the oceans are not possible. New and complex approaches to integrated oceans management and the optimal organisation of multiple activities and their impact on oceans ecosystems are dependent on scientific evaluations and evidence-based interventions. The lack of a comprehensive, global, integrated science agenda on the oceans is no excuse for inaction: enough is known to jump in now. Nevertheless, there remains an urgent need to develop a global understanding of marine resources and systems, and the impact of human activities, if we are to use the oceans responsibly and sustainably.

- How can a new sense of urgency around oceans research be developed?
- How can proposed existing global systems like GOOS be accelerated? How important is it to monitor the entire oceans ecosystem in real time?
- What broadly is needed? What kind of technologies could be deployed?
- Why should the corporate sector help?

Discussion leader

Tony Haymet, Director, **Scripps Institution of Oceanography**

Speakers

Jesse Ausubel, Co-Founder, **Census of Marine Life**
Steve Blake, Chief Executive Officer, **Western Australian Marine Science Institution**
Luke Smith, Principal Environmental Scientist, **Woodside**

Moderator: Geoff Carr, Science Editor, *The Economist*

4:45pm

Presentations and discussion from working groups

5:45pm

Chair's closing remarks

John Micklethwait, Editor-in-chief, *The Economist*