



Contribution to the United Nations Conference on Sustainable Development

Submitted by the World Business Council for Sustainable Development

The World Business Council for Sustainable Development (WBCSD) is a partner in the Business Action for Sustainable Development coalition (BASD 2012). This submission complements and supports the submission of BASD 2012 to the Conference on Sustainable Development.



The World Business Council for Sustainable Development (WBCSD) has been an active and constructive participant in sustainable development efforts at the international level since the first Rio Summit in 1992. We are pleased to provide this submittal as our initial contribution to the United Nations Conference on Sustainable Development (Rio+20), and as a complement to the submission from the BASD 2012 coalition and the Business & Industry Major Group.

The mission of the WBCSD is to provide business leadership as a catalyst for change toward sustainable development, and to support the business license to operate, innovate and grow in a world increasingly shaped by sustainable development issues. Through our participation in the Rio+20 process, we hope to stimulate action which reflects the urgency and the complexity of the challenges we are facing.

In 2010 we published the Vision 2050, a discussion paper which explored what a pathway would look like that would allow the world to reach the vision of “9 billion people living well, and within the limits of the planet”. The pathway proposed 9 key elements, and for each a measure of success:

- People's Values - Sustainability embedded in all products and services & lifestyles
- Human Development - Billions of people lifted out of poverty
- Economy - Cost of carbon, water and other ecosystem services internalized
- Agriculture - Agricultural output doubled through improved land and water productivity
- Forests - Deforestation halted, carbon stocks in planted forests doubled from 2010
- Energy and Power - CO₂ emissions reduced by 50% worldwide (based on 2005 level)
- Buildings - All new buildings use zero net energy
- Mobility - Near universal access to reliable and low carbon mobility, infrastructure & information
- Materials - Four-to-tenfold improvement in the eco-efficiency of resources and materials from 2000.

Making these changes – and more – will enable us to consume just over one planet’s worth of ecological resources in 2050, as opposed to the 2.3 planets we will be using if we continue on the business-as-usual path we are on today.

WBCSD strongly believe that the world already has the knowledge, science, technologies, skills and financial resources needed to achieve Vision 2050 but the foundations for much of what is required will need to be laid at speed and scale in the next decade. At the same time, the map is far from complete. There are still many significant questions to be answered about governance, global frameworks for commerce, roles and responsibilities, and risks. Nevertheless, these can be answered in time for progress to be made.

In Rio in 1992, we saw a dramatic change in awareness of sustainable development issues. It is our hope that from Rio in 2012, we will see a dramatic change in the pace of efforts to address sustainable development issue.

About this submittal

This submittal, as a complement to the BASD 2012 coalition’s submittal, addresses specific topic areas which WBCSD has identified as priority areas for Rio+20. A more complete catalog of our efforts related to sustainable development can be found at www.wbcspd.org. It is our hope that these components will be useful in the development of the Zero Draft of the Rio+20 outcome document.

About the WBCSD

The World Business Council for Sustainable Development is a CEO-led organization of forward-thinking companies that galvanizes the global business community to create a sustainable future for business, society and the environment. Together with its members, the council applies its respected thought leadership and effective advocacy to generate constructive solutions and take shared action. Leveraging its strong relationships with stakeholders as the leading advocate for business, the council helps drive debate and policy change in favor of sustainable development solutions.

The WBCSD provides a forum for its 200 member companies - who represent all business sectors, all continents and a combined revenue of more than \$7 trillion - to share best practices on sustainable development issues and to develop innovative tools that change the status quo. The Council also benefits from a network of 60 national and regional business councils and partner organizations, a majority of which are based in developing countries.

Disclaimer

This submission is released in the name of the WBCSD. Like other WBCSD publications, it is the result of a collaborative effort by members of the secretariat and executives from several member companies. A wide range of members reviewed drafts, thereby ensuring that the submission broadly represents the majority view of the WBCSD membership. It does not mean, however, that every member company agrees with every word.

Forestry Sector

Key Messages

- Expand efforts to further bring the world's forests under sustainable management, accommodating the multiple and varied economic, social and ecological values and benefits of forests.
- Develop local management capacity and support policy reform to reduce deforestation in developing countries as proposed by the REDD+ mechanism.
- Promote development of adequate supplies of wood from sustainably managed forests
- Support the mitigation and adaptation roles of forest owners by helping them keep forested land in forest, improve forest productivity, and increase the recovery of forest residuals;
- Help minimize competition for the land used to produce food, energy and industrial raw materials;
- Recognize the GHG mitigation and adaptation benefits of carbon stored in harvested wood products, and when substituted for more GHG-intensive alternatives;
- Optimize fiber recovery and its use and re-use – as products first, and finally as a source of energy.
- Avoid counterproductive policy impacts and technology barriers
- Implement mitigation or adaptation strategies involving the supply and use of forest biomass that are market-driven, rather than relying on subsidies, incentives or mandates.

Narrative

Only with a deeper global understanding of deforestation's impacts can a sustainable approach to forest management become the norm. This will encompass the significant role forests play in climate mitigation, biodiversity conservation and the provision of critical ecosystem services like wood, paper and bio energy. Institutional and market support for avoided deforestation, improved forest conservation and management are key "must haves". In terms of global climate mitigation, commitment by industrial countries will help create a strong demand for REDD+ (Reducing Emissions from Deforestation and Forest Degradation in Developing Countries + Conservation and Sustainable Management) carbon credits which are linked to emission cuts. Offset allowances will be a significant step forward. Financial incentives for conserving primary forest, paid for by donor countries and institutions, should be created along with monitoring and

reporting methodologies. Finally incentives to encourage indigenous peoples, local communities and private forest owners to become active participants in sustainable forest management need to be in place.

The Sustainable Forest Products Industry – Responsible managers

- We supply products that are made of renewable raw materials, require lower fossil energy inputs during their life cycle than most alternative non-wood products, are highly recyclable given available logistics, and store carbon.
- Working with private and public landowners, we use forest resources sustainably, maintaining the efficient infrastructure needed to ensure healthy growing forests, and the provision of valuable ecosystem services.
- We are energy intensive, but meet much of our energy needs with biomass, a fuel that adds no CO₂ to the atmosphere, when produced sustainably.
- We provide markets for wood, and thus encourage landowners to retain or expand their forests.
- We are committed to working with other stakeholders to maximize the contribution of the sector to climate mitigation and adaptation.

Our carbon opportunities

- Breakthrough technologies are needed to significantly reduce energy consumption within the industry
- To help reduce society's energy use and greenhouse gas emissions (GHG), the forest products industry can:
 - Become even more energy efficient, especially by increasing the use of combined heat and power (CHP) systems and waste heat recovery;
 - Increase its use of biomass in energy production;
 - Provide wood-based products, chemicals and fuel that can replace fossil fuel based alternatives;
 - Supply society and industry with increasing amounts of sustainably produced wood and fiber for use as a raw material and for bio-energy;
 - Provide wood products to society that mitigate the growth in atmospheric greenhouse gases by storing carbon and substituting for more greenhouse gas-intensive products;
 - Increase the recovery and use of recycled fiber;
 - Plan and provide for increased sustainably managed fiber supply.

Our carbon challenges

- The connections between our industry and the global carbon cycle are complex – hastily enacted climate change policies can have unintended consequences on our industry.
- We are capital intensive, making it difficult and expensive to change technology in response to short-term policy measures.

- Ours is a world marketplace, and we must think in terms of global solutions to business and environmental problems.

Green procurement of wood and paper-based products

At the other end of the forestry value chain it is equally important to ensure that demand moves swiftly from the produce of forest clearing and degradation to the supply from sustainable practices that incorporates the value of storing carbon. The WBCSD and the World Resources Institute have provided a comprehensive guide and set of tools¹ to expand demand for wood and wood-based products grown, harvested and processed sustainably. These resources should assist the policy makers in clarifying the requirements of Green Public Procurement as well as all other wood and paper-based retailers and professional users. With this knowledge and resources it is now possible and urgent to make market demand a driver of green economic growth of the forestry sector.

Policy Recommendations

- Sustainable forest management – the key strategy
 - Expand efforts to further bring the world's forests under sustainable management, accommodating the multiple and varied economic, social and ecological values and benefits of forests.
 - Develop local management capacity and support policy reform to reduce deforestation in developing countries as proposed by the REDD+ mechanism.
- Produce and use more wood on a sustainable basis – the key outcome: The many benefits of sustainable forest-based products and bio-energy can only be realized if public policies:
 - Promote development of adequate supplies of wood from sustainably managed forests;
 - Support the mitigation and adaptation roles of forest owners by helping them keep forested land in forest, improve forest productivity, and increase the recovery of forest residuals;
 - Help minimize competition for the land used to produce food, energy and industrial raw materials;

¹ <http://www.sustainableforestprods.org/>

- Recognize the GHG mitigation and adaptation benefits of carbon stored in harvested wood products, and when substituted for more GHG-intensive alternatives;
 - Optimize fiber recovery and its use and re-use – as products first, and finally as a source of energy.
- Avoid counterproductive policy impacts and technology barriers – the key requirement
 - Mitigation or adaptation strategies involving the supply and use of forest biomass should be market-driven, rather than relying on subsidies, incentives or mandates.
 - Policies should support the mitigation role of forest products manufacturers by helping them expand the use of CHP (Combined Heat and Power), invest in low-GHG emitting technologies, and facilitate the early adoption of these technologies.
 - A level global playing field in terms of carbon policy impacts will avoid carbon leakage.
 - Additional Recommendations
 - Set clear standards for Green public procurement of wood and wood-based products based on existing tools, such as those from the WBCSD and the World Resources Institute

Note: The World Business Council for Sustainable Development's (WBCSD) Sustainable Forest Products Industry (SFPI) Working Group consists of leading international forestry and forest product companies with a shared commitment to sustainable development and balancing efforts between economic growth, ecological balance and social progress.

These companies are committed to maximizing their contribution to climate change mitigation and adaptation by proactively managing their carbon profile. Under the SFPI Membership Principles and Responsibilities participating member companies commit to:

- Efficient and innovative use of fiber, energy and new technologies;
- Promoting the recyclability, recovery and appropriate reuse of fiber;
- Improving energy efficiency and use of renewable energy;
- Tracking, managing and reporting on carbon dioxide emissions;
- Promoting sustainable forest management and use of forest products as important climate mitigation and adaptation strategies.

The full SFPI Membership Principles and Responsibilities can be found online (www.wbcscd.org).

Power Sector - Electric Utilities

Key Messages

- The power sector bears a front-line responsibility in the urgent global struggle against climate change. These challenges are huge, but not out of reach, and the power sector is willing to take resolute action to address a three-fold challenge:
 - Sustain economic growth through competitive and available electricity generation;
 - Reduce CO₂ emissions and mitigate the impact on the environment; and
 - Ensure access to affordable energy for low-income customers to guarantee social cohesion.

- In the coming decades, the world will need to double today's generation capacity. The power sector has a strong opportunity to take a lead in combating climate change. But it cannot do this alone.
 - Business need to work with governments and other stakeholders to find solutions. Some of these changes will take many years, but there is no time to lose and it is only through combined efforts that we will succeed in creating a low-carbon, sustainable energy future.

- Most of the technologies needed are already available. Some are commercially mature and can be deployed much more widely today; others – while having promise – are not yet ready for the market and need reinforced with an accelerated focus on research, development, and demonstration at scale.
 - In order to encourage investment in the right technologies at the right time and at the right place, policies and financing frameworks will need to be tailored to national contexts and to the level of maturity of each technology.
 - There is no “silver bullet” – neither on the technology nor on the policy side.

Narrative

Electricity plays a critical role in the economies of most countries; it has become a prime driver to productivity, job creation and economic growth. Yet despite its contribution the sector faces significant and wide-ranging hurdles.

Electricity is at the heart of the global energy challenge. It is an essential part of daily modern life and a basic requirement for development. In addition, as an emitter of approximately 40% of global energy related CO₂ emissions, the sector plays an essential role in ensuring an effective transition towards a low-carbon economy. While the power sector is experiencing sustained growth, it is grappling with fundamental issues of security, reliability, affordability, environmental impacts and basic access. Reliance on aging and over-stressed networks is increasing the risk of blackouts. More than a billion people still have no access to electricity. These trends are not sustainable.

The climate change challenge

Energy-related CO₂ baseline emissions could roughly double between 2010 and 2050 up to 57 Gt CO₂ according to the International Energy Agency (IEA) Energy Technology Perspectives (ETP). However under their Blue Map Scenario the IEA identifies technologies that could reduce carbon dioxide (CO₂) emissions by 43 Gt CO₂ in 2050. End-use energy efficiency could contribute with 38% of that reduction. From a sector perspective, the power industry could reduce its emissions by 32% with an unprecedented massive deployment of new and existing low carbon technologies. Key contributors to this emission reduction would be CCS (31% of reduction) and Wind & Solar (27% of reduction).²

Production, transmission and distribution electricity networks require high initial capital investment and long investment cycle. This adds a level of urgency to develop the necessary changes to avoid lock-in to a carbon intensive mix. Some of the current assets would still be in operation in 2050.

Current market and regulatory conditions alone will not drive the global development and deployment of low-carbon technology to the extent necessary to address the challenges of climate change. The recent crisis in the global financial markets must not be allowed to stifle or delay critical infrastructure investments at a time when these are so badly needed. Business cannot act alone. Success also depends on urgent action by governments.

Energy efficiency comes first

For the electricity sector, the challenge of climate change drives a three-pronged strategy: decarbonization of electricity supply, energy savings along the entire electricity value chain, and electrification of fossil fuelled processes. Energy efficiency is critical to all three aspects of this strategy.

Efficiency improvements in the electricity sector have the potential for big savings in total power use and large reductions in GHG emissions. According to the IEA ETP 2010 Blue

² For a detailed business analysis of the potential of these technologies see the WBCSD electric utilities project publication [Power to Change](#)

Map Scenario, energy savings in the electricity sector could reduce CO₂ emissions by 7.3 Gt CO₂ in 2050 relative to business as usual; this is equivalent to 17% emission reduction.³

However, improvements in energy efficiency can be hindered by:

- lack of knowledge or skills to recognize and achieve potential savings;
- low priority relative to other costs for many users;
- significant upfront costs, long pay-back periods and the risk that savings will not materialize; or
- energy cost subsidies and un-priced externalities such as climate change.

Appropriate energy and carbon pricing will incentive energy savings. However, sometimes this might not be enough to tap the efficiency potential and additional energy efficiency policies are needed. Their suitability will vary depending on the way decisions are made, such as:

- nature and location of potential energy savings;
- roles of key decision-makers: owners, tenants, operators, regulators, users; or
- electricity market and tariff structures, particularly subsidies and carbon costs.

Policy Recommendations

At the national level:

- A **realistic pricing of electricity** to reflect both investment cost and a value for carbon emissions with targeted support for low-income customers;
- **Appropriate market mechanisms**, which address the external costs of climate change (mitigation and adaptation), should be considered as a potential energy efficiency and climate policy instrument.
- Energy and carbon pricing measures should be complemented with **other regulatory measures** to promote the use of energy efficient appliances, such as labeling and standards;
- Support for innovation and R&D across a wide range of promising technologies;
- Energy efficiency programs **for power generation** should focus on building know how and providing a convincing cost perspective for: utilizing the **highest efficiency**

³ For a detailed business analysis of the potential of energy efficiency and some business cases please refer to the WBCSD electric utilities project publication [Integrating energy efficiency across the power sector value chain](#)

technologies for all new plants and **restoring design efficiency** in existing plants.

Specific policies to improve production efficiency include emission performance standards or emission trading systems, including CDM. Policies should be articulated to ensure overall consistency;

- **Efficient siting and licensing procedures** to enable rapid and effective investments in new generating capacity;
- **Grid energy efficiency programs** and measures should focus on recognizing investment needs to increase both efficiency and reliability, to enable new grid functions and to counteract inefficiencies arising from intermittent renewables and increased variability in demand;
- Public investment in **electric rail and electric vehicle** transport infrastructure should be part of urban strategies to save energy, reduce GHG emissions and increase the use of public transportation;

At the international level:

- The timely establishment of a **long-term, stable international framework** on both emissions reduction and the promotion of low-carbon technologies and energy efficiency measures. Such agreement should involve all major economies;
- **Flexibility mechanisms**, whether new, existing or improved, open to all key mitigation technologies, for the purpose of replicating the deployment of low-carbon facilities and energy efficiency programs;
- **Pooled efforts in R&D for emerging clean energy technologies** (such as joint R&D and demonstration programs);
- International adaptation mechanisms to support the **acquisition of information technology** and finance and facilitate the development of adaptation capacity, resilience and risk management strategies.

Topic: Buildings

Key Messages

- Strengthen codes and labeling for increased transparency
- Deploy incentives for energy-efficiency investments
- Encourage integrated design approaches and innovations
- Develop and use advanced technologies to enable energy-saving behaviors
- Develop workforce capacity for energy saving
- Mobilize for an energy-aware culture

Narrative

The 2050 Vision: New buildings are zero net energy and existing ones are retrofitted towards the same goal. Many new jobs have been generated and the building sector has become more knowledge intense. This has been achieved through:

- Integrated building design,
- Affordable, high-performing materials and equipment,
- Stringent, enforced energy codes for new and existing buildings,
- Energy performance labels on all buildings,
- Energy metering and controls and information flow between utilities and appliances
- New financing solutions.

Developers include high energy efficiency goals in projects to meet building codes and increase the value for buyers. All parties are included at the early planning stage to share risks in tender applications and overcome conflicting incentives for different parties.

Business, as a large, visible customer of the building industry has played a leading role raising awareness and demonstrating best practices for education of the public. Corporate buildings are showcases for energy and emissions saving technology, and pave the way for buildings to become virtual power plants.

Achieving the Vision for Buildings

Transformation of the building sector requires immediate and substantive action by business, individuals and governments. Policies and promises are not enough. Action is required by all those involved in determining building energy use. The building industry needs to retool and

harness business opportunities; introduce integrated planning early on; and provide training for sector professionals. These initiatives have to be coupled with regular government audits of energy performance and sustained campaigns to increase awareness of energy use in buildings and promote behavioral change. Government will play a key role in ensuring the necessary must haves for buildings are in place. Aggressive policies and tax incentives are necessary to lead market trends in transitioning energy use toward sustainability, including enforcing strict energy efficiency requirements in building codes.

- Global, local & corporate leadership
- Integrated urban management
- Access to basic services
- Long-term financing models
- Tough energy-efficiency rules
- Infrastructure investment
- Value chain innovation
- Energy efficiency in production

WBCSD Efforts

Determined to unlock this potential for transformation the WBCSD has conducted 4 years of extensive research to define the mix of measures that would enable coordinated and intensive action by individuals, business and governments. The study focused on six geographies – Brazil, China, Europe, India, Japan and the USA – and their four prevailing building types – residential single-family and multi-family homes, commercial offices and retail buildings. It therefore covers two thirds of the world's energy used in buildings. A model and data bases, created with leading universities , can simulate and forecast the evolution, at 5 years intervals up to 2050, of the financial costs, the CO2 emissions and the energy requirements that result from a range of decisions affecting construction and retrofitting designs, public policy choices, market conditions and users behaviors. It can therefore clarify the best set of concerted actions. This unique model and its database are available.

The analysis conducted in this way confirms the possibility of many energy efficiency projects at energy prices based on US\$60 per barrel of oil: investments of US\$ 150 billion annually would cut the carbon footprint of buildings by 40% with a 5 years discounted payback to the owners. A further US\$ 150 billion per year cuts another 12 % of carbon emissions with discounted paybacks between 5 and 10 years. An additional carbon cost of US\$ 40/ton of CO2 brings the total abatement from 52% to 55%. This is still short of the International Energy Agency scenario of a 77% reduction from Business-As-Usual.

Yet nothing of this will even start to happen spontaneously in the face of the knowledge, behavior and economic barriers that restrain change in the building sector. The WBCSD study therefore concludes that transformation must be enabled by a set of government enforced

building codes and related incentives mechanisms established in collaboration with the concerned business sectors. Their net costs may amount to 7% of total building costs worldwide but should also be seen as the cost of correcting the harmful market failures that let buildings pollute and push climate risks beyond irreversibility.

Recommendations

Strengthen codes and labeling for increased transparency

- Climate adjusted energy-efficiency requirements must be included in building codes and tightened periodically until reaching a zero-net-energy standard for new constructions. The same must apply to appliances with due considerations to their global trade.
- The adoption of codes and standards must be enforced and verified. Safety, health and fire audits are performed in most countries, and could be combined or alternated with energy and water efficiency audits. This also means that meaningful metering must be extended to the responsible tenants in houses, offices and shops.
- Audit results and performance must be disclosed in public registries in order to encourage efficiency behavior and provide feedback and support for corrective actions.
- Energy efficiency labels should be applied to all buildings to clarify compliance and futures costs to prospective owners.
- Legal barriers that hamper energy retrofits should be identified and removed.

Deploy incentives for energy-efficiency investments

- Provide fast-track permits for projects that meet or exceed efficiency codes.
- Secure credit facilities and special funds to bridge payback delays for first-cost comprehensive efficiency packages with best available technologies.
- Associate the electricity and gas utilities to demand-side-management incentives for retrofitting.
- Provide subsidies or feed-in tariffs for on-site renewables that provide reasonable paybacks to reach near parity for grid gas and electricity costs.
- Set incentives and minimum efficiency targets for insurance and pension funds real estate investments portfolio.
- Support retrofitting with property tax and other benefits tied to proof of performance.

Encourage integrated design approaches and innovations

- Influence urban planning for maximum integration, for mixed residential, office and commercial settings and for optimal building density.
- Move rapidly to integrated designs and zero net energy for all government projects and retrofit the most inefficient government facilities.
- Enforce predictable price signals for energy costs, not on the basis of average existing generation fleets, but on full reinvestment costs of next capacity installments.

Develop and use advanced technologies to enable energy-saving behaviors

- Retrofitting and zero net energy packages with faster payback require public research and development funding.
- There is also an urgent need to empower users with smart metering and load factor controls and ensure their deployment to a majority of the population.

Develop workforce capacity for energy saving

- Support training and credible licensing schemes for energy services professionals.
- Establish the capacity to integrate and maintain appropriate technologies in a cost efficient system, adapted to specific situations - currently a missing link in the building sector, energy supply market, and especially the retrofitting sector.

Mobilize for an energy-aware culture

- National energy security, environmental quality and long-term competitive strength and employment are at stake in the transformation of every household, office and shop into near net zero energy consumers.
 - This objective deserves a sustained public awareness and motivation campaign.
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Policy Recommendations

- Strengthen codes and labeling for increased transparency
- Deploy incentives for energy-efficiency investments
- Encourage integrated design approaches and innovations
- Develop and use advanced technologies to enable energy-saving behaviors
- Develop workforce capacity for energy saving
- Mobilize for and energy-aware culture

These six headline government policy measures are documented in more details in the WBCSD's Roadmap for Transformation of Energy Use in Buildings (August 2009), which also addresses the converging actions, in the near-, medium-, and long-term, by all agents of the complex construction process: Investors, Developers, Architects, Engineers and Contractors, Materials and Appliances Suppliers, Utilities and Occupiers.

For WBCSD members and others not willing to wait for others to act, the WBCSD offers a Manifesto for Energy Efficiency in Buildings to undertake for their own, rented or managed building stock, the following actions:

1. Create a baseline for energy and CO₂ and set transformative change targets,
2. Publish the company's policy for minimum energy performance levels,

3. Define and deploy the company's strategy and audit program to meet and verify the targets,
4. Publish performance and progress annually in the company's CSR or other reports,
5. Promote building energy efficiency in the company's zone of influence through advocacy, marketing, research and development, education and training

Oceans

Developed in collaboration with the World Oceans Council

Green growth will take place in an increasingly crowded and complicated seascape of competing ocean users. The best efforts by a single company, or an entire industry sector, are not enough to secure the future health and productivity of the ocean – and support Green Growth. A robust and responsible Blue Economy requires ocean industry collaboration and leadership, cross-sectoral synergies and economies of scale and a focus on solutions and technologies for sustainability.

Key Messages

- An international blue-green, public-private partnership program is needed to facilitate industry leadership and collaborative efforts to address specific ocean stewardship
 - Catalyze business community efforts to establish international, cross-sectoral, ocean-industry platforms that develop solutions to high priority ocean impacts such as marine invasive species
 - Develop a program of improved, expanded and coordinated industry collection and sharing of oceanic and atmospheric data from vessels and platforms
 - Encourage collaboration in the Arctic and other high priority regions that would benefit from cross-sectoral industry action and coordination on stewardship, e.g. the Baltic, the Caribbean, and the Mediterranean.
 - Create an ocean industry leadership group on moving ocean business effects to a neutral or net positive effect on the blue carbon storage capacity of marine ecosystems
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Narrative

Global ocean economic activity is worth up to USD 21 trillion/year and is growing rapidly from a wide range of industries, e.g. offshore oil and gas, shipping, fisheries, aquaculture, ports, tourism, renewable energy, desalination and other uses. At the same time, the ocean is a “global commons” that provides many public goods and services that are at risk due to impacts from human activities. As a primary ocean user, industry is well placed to develop and implement solutions to ensure that marine ecosystem use is sustainable and impacts are reduced. International ocean business community collaboration on responsible use is now beginning. Public-private partnerships could accelerate and strengthen nascent private sector action on ocean sustainability. With targeted public sector support for global ocean sustainable

use initiatives, private sector leadership would leverage the considerable synergies, economies of scale, and efficiencies of coordinated, cross-sectoral industry action, and more rapidly achieve the public benefits of a sustainable blue-green economy.

Background Information: Maritime transport accounts for 90% of global trade and is the most fuel/carbon efficient transport mode. In the energy sector, 30 % of oil and gas is from offshore production, and growing, and offshore wind energy is projected to be worth up to USD 273 billion by 2050. A significant portion of food production, especially protein, comes from the sea, particularly in developing countries. Human consumption of seafood fish grew from 20 - 85 million tons during 1960 – 2002. Aquaculture now provides 50% of seafood and has been fastest growing food sector for 10 years. Freshwater is increasingly derived from the marine waters in many areas. The Arabian Gulf has about half of the world's desalination capacity, exceeding 11 million m³/day. In Kuwait, 90% of potable water comes from the sea.

A robust and responsible Blue Economy is an essential component to Global Green Growth. Blue Economy growth and sustainability is affected by environmental issues and impacts. Many of these issues are cross-cutting, cumulative and require technology and innovation. The ocean is an interconnected global system, and all users need to be a part of addressing marine ecosystem health.

Green growth will take place in an increasingly crowded and complicated seascape of competing ocean users. The best efforts by a single company, or an entire industry sector, are not enough to secure the future health and productivity of the ocean – and support Green Growth. A robust and responsible Blue Economy requires ocean industry collaboration and leadership, cross-sectoral synergies and economies of scale and a focus on solutions and technologies for sustainability.

Create Public-Private Partnerships to Catalyze Ocean Industry Leadership in Developing Solutions to Impacts and Improving Ocean Data and Maintaining Blue Carbon Capacity

Rationale/Justification: Many businesses directly depend upon marine space and resources, e.g. shipping, offshore oil and gas, fisheries, aquaculture, marine tourism, seabed mining, ports, ocean renewable energy. Private sector use of the ocean is expanding rapidly in its volume and kinds of activities, with increasing impacts on the marine environment at a cumulative global scale. User conflicts among industries and with other stakeholders are increasing. As the primary user of the ocean, industry is well placed to develop and implement solutions in response to society's increasing demands that marine ecosystem use is sustainable and impacts are reduced.

Many of the impacts of economic activities on the marine environment are not unique to a single sector, e.g. ocean noise, marine invasive species, ship strikes on marine mammals,

marine debris, although pollution and habitat loss/degradation are main 'multi-sectoral' drivers of ocean issues.

Until recently, there has not been a structure or process to bring together the diverse ocean industries to collaborate on: a) undertaking the research, development, testing and implementation of solutions to cross-sectoral industry impacts on the ocean; b) improving, expanding and coordinating the collection of oceanic and atmospheric data from vessels and platforms; c) working to ensure commercial ocean activities do not reduce (and possibly help increase) the blue carbon storage capacity of marine ecosystems.

International ocean business community collaboration and leadership efforts are now beginning. Public-private partnerships could catalyze, accelerate and strengthen the nascent private sector interaction on ocean sustainability, with a focus on priority impacts, and priority regions, including the Arctic. Targeted public sector support could leverage the considerable synergies, economies of scale and efficiencies of coordinated cross-sectoral industry action and more rapidly achieve the public benefits of a blue-green economy.

Main objectives of the Proposal

- i. Create an international blue-green public-private partnerships program to facilitate industry leadership and collaboration efforts to address specific ocean stewardship needs.
- ii. Implement public-private partnerships to catalyze ocean business community efforts to establish international, cross-sectoral ocean industry platforms that develop solutions to high priority, cross-cutting ocean impacts, e.g. marine invasive species.
- iii. Implement public-private partnerships to catalyze ocean business community efforts to develop a program of improved, expanded and coordinated industry collection and sharing of oceanic and atmospheric data from vessels and platforms.
- iv. Implement public-private partnerships to catalyze ocean business community leadership and collaboration in the Arctic and other high priority regions that would benefit from cross-sectoral industry action and coordination on stewardship, e.g. the Baltic, the Caribbean, and the Mediterranean.
- v. Create an ocean industry leadership group on moving ocean business effects to a neutral or net positive effect on the blue carbon storage capacity of marine ecosystems.

Expected results:

- Public-private partnerships that catalyze industry efforts to address ocean impacts and improve ocean understanding, creating a major multiplier effect by leveraging private sector resources.
- Practical, cost-effective solutions and best practices for priority cross-cutting marine environmental problems, based on good science and broadly agreed by industry across multiple sectors.
- Significantly increased oceanic and atmospheric data that result in important improvements to the understanding, modelling and predictability of ocean conditions, extreme events and climate change.
- Regional ocean business councils working to address impacts, improve data and address ocean sustainability in the Arctic and in priority regional seas.
- The commercial ocean activities minimize their impact on the blue carbon storage capacity of marine ecosystems and begin to transition to a neutral or net positive effect.
- Transfer of best practices and technologies across sectors and different geographies, particularly for developing countries that would not otherwise have access to these.

Policy Recommendations

- Create an international blue-green public-private partnerships program to facilitate industry leadership and collaboration efforts to address specific ocean stewardship needs.
- Develop a program of improved, expanded and coordinated industry collection and sharing of oceanic and atmospheric data from vessels and platforms.
- Create an ocean industry leadership group on moving ocean business effects to a neutral or net positive effect on the blue carbon storage capacity of marine ecosystems.