



## Blue Economy for Business in East Asia

**East Asian Seas Congress**

**Furama Resort Da Nang, Vietnam**

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Time	Activity/Presentation	Speaker/Panelist
1030 - 1040	Welcome remarks and overview of PEMSEA's work with companies on integrated coastal management	Mr. Stephen Adrian Ross Executive Director, PEMSEA
1040 - 1100	Keynote: Launching the <i>Blue Economy for Business in East Asia</i> report	Mr. Ryan Whisnant Head of Professional Services, PEMSEA
1100 - 1230	Industry perspectives on sustainable development of coasts and oceans: (1)Oil & Gas (2)Fisheries & Aquaculture (3)Environmental Services (4)Tourism & Development (5)Coastal Manufacturing & Heavy Industry	
1230 - 1400	Lunch break	
1400 - 1430	Breakout group discussions on industry-specific challenges and opportunities	
1430 - 1445	Industry report-back	
1445 - 1530	Facilitated group discussion on challenges, opportunities and cross-industry collaboration	Dr. Mark Milstein Clinical Professor of Management and Director, Center for Sustainable Global Enterprise, Cornell University
1530 - 1600	Public-Private sector interaction for enabling sustainable development of coasts and oceans	Ms. Noraini Binti Roslan President, Kuala Selangor District Council, Malaysia
1600 - 1615	Coffee break	
1615 - 1630	Confirm blue economy message to ministers	Mr. Ryan Whisnant Head of Professional Services, PEMSEA
1630 - 1730	Introduction and company priorities for an East Asian Seas Sustainable Business Network	

# Emergence of Blue Economy

**The concept of “blue economy” has gained popularity as a potential driver of sustainable economic growth in East Asia, but a clear definition and understanding have not been established, particularly for the private sector**

- Megatrends: growing population, pressure on existing resource base, increasing access to coastal and marine environment through technological advances
- Accelerated development and exploitation of coasts and oceans is certain, threatens a decline in ecosystem services
- Can this development and growth be sustainable, in a region so dependent on its coastal and marine resources?
- PESMEA has launched a report for the business community on the role of blue economy for business in East Asia, including input from companies in environmental services, heavy industry, tourism, shipping and oil & gas



# Value of Coastal and Marine Ecosystems

- Coasts and oceans are some of the most productive ecosystems on the planet, providing services that contribute to human survival and quality of life
  - Food from wild-catch fisheries and aquaculture
  - Weather regulation and protection from natural hazards (e.g., storms and floods)
  - Carbon sequestration by mangroves, sea grass beds and salt marshes
  - Energy from offshore oil, wind and waves
  - Shoreline stabilization and erosion control
  - Regulating and processing nutrients and waste in the environment
  - Formation of sand, soil and other sediments
  - Pharmaceutical and other biotechnology products
  - Trade through shipping and ports
  - Tourism, recreation and spiritual value
- Oceanic environments are valued conservatively at US\$2.5 trillion annually, with over 60 percent of the world's total gross national product coming from areas within 100 kilometers of the coastline



# Critical Role of Coasts and Oceans in East Asia

- 7 million km<sup>2</sup> / 235,000 km of coastline / 1.5 billion residents
- 1/3 of all coral reefs and mangroves, highest levels of biodiversity for coral reef fish, mollusks, mangroves and sea grass species
- 9 of the world's mega-cities (population more than 10 million), dozen other cities more than 5 million residents
- Marine and coastal industries comprise 15-20% of GDP in some East Asian countries
- 83% of the world's aquaculture products
- Over 32 million tons of annual fish catch
- 9 of the 10 busiest container ports
- 4 of the top 5 shipping economies





## Threats to Coasts and Oceans

**Economic growth has come at a cost to the ecosystems on which it depends.**

- 88% of coral reefs in Southeast Asia are under threat and mangrove forests have been reduced to 30-50% of their historical coverage
- As of 2011, 90% of global fish stocks were overfished or fully fished. Predictions of 40-60% declines in fish catches in some areas of the tropics due to climate change
- Sea's acidity level has risen 26% since pre-industrial times; around 10% of the Arctic Ocean will be corrosive enough to dissolve shells of sea creatures by 2018
- Impacts from overfishing, coastal hypoxia and eutrophication, invasive aquatic species, coastal habitat loss and ocean acidification costs the global economy US\$350-940 billion every year





# The Importance of Ecosystems for Business

**Traditionally considered externalities in economic terms, environmental impacts can cause a decline in ecosystem services and degradation of the natural capital that is the basis for all economic activity.**

Companies are exposed to operational, regulatory, reputational, market and financial risks related to proper management of ecosystem services.

- Business value related to these risks could be as high as 25-70% of EBITDA
- Over the past 13 years, the average annual volatility of resource prices has been almost three times what it was in the 1990s
- Review by Deutsche Bank found that firms with higher ratings for ESG factors have a lower cost of capital in terms of both debt and equity
- Nearly 80 percent of corporate value reflected in the S&P 500 now resides in intangible assets, including reputation
- Most of the large cities at extreme risk from climate change are located in Asia, and by midcentury could face annual disaster losses in excess of US\$19 billion

# Evolution of “Blue Economy”

- First introduced in 1994 under UN initiative, focused on business models. Adopted for marine context around Rio+20 Conference in 2012.
- In 2012, ministers from 10 countries including Cambodia, China, Indonesia, Japan, Lao PDR, the Philippines, RO Korea, Singapore, Timor-Leste and Viet Nam signed the Changwon Declaration entitled "Toward an Ocean-Based Blue Economy"
- Discussion has remained largely the domain of government–APEC, UNDP, FAO and several countries.
- Private sector showing increasing interest with initiatives from the Economist and World Ocean Council
- By and large, companies surveyed for this report were not familiar with the concept of blue economy





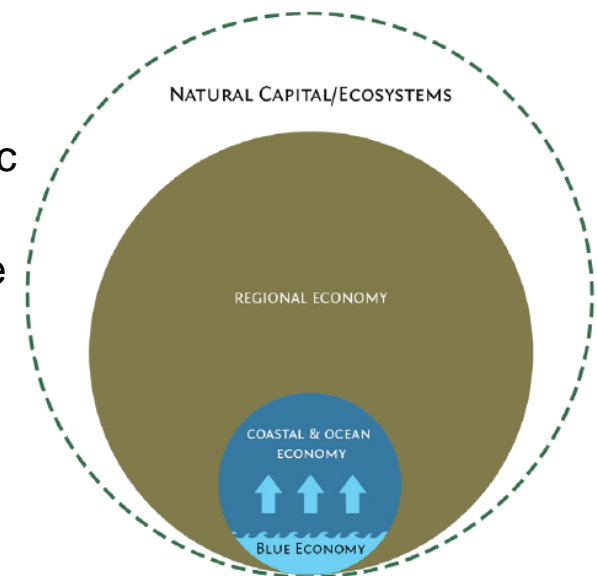
# Blue Economy Definition

**Blue economy is the set of environmentally and socially sustainable commercial activities, products, services and investments dependent on and impacting coastal and marine resources.**

*Activities that erode natural capital through degradation of ecosystem services are inherently not sustainable, and not “blue”*

Four key elements are present in coastal and marine economic activity that can be considered blue economy:

1. Protects, restores and sustains healthy coastal and marine ecosystem services
2. Generates sustainable, equitable economic benefit and inclusive growth
3. Integrates approaches between multiple industries and government
4. Innovates, informed by the best available science





## Blue Economy Industries

**Nine key industries were identified as impacting blue economy growth:**

1. Fisheries and Aquaculture
2. Ports, Shipping and Marine Transport
3. Tourism, Resorts and Coastal Development
4. Marine Technology and Environmental Services
5. Oil and Gas
6. Coastal Manufacturing
7. Seabed Mining
8. Renewable Energy
9. Marine Biotechnology

- There are many related industries that could play a role in the blue economy, e.g., Marine Finance and Legal Services, Agriculture
- Report focuses on commercial/private industry, not contribution from government and non-profit sectors

# Fisheries and Aquaculture

- 8 of the top 15 marine capture fish producing countries in the world are in East Asia
- By 2030, Asia will consume 70 percent of fish globally
- Globally, lost economic value of overfished stocks is around US\$50 billion annually
- Wild fish production could rise by as much as 15% and profits by a factor of 2.5 if fisheries were managed sustainably

## Risks:

- Increased operating costs from decline in fish stock productivity or unrecoverable decline in stocks
- Lower quotas or loss of license to operate imposed by local communities and government

## Opportunities:

- Access to expanded and premium markets through enhanced brand
- Access to capital from socially and environmentally responsible investors for fisheries improvement



# Tourism, Resorts and Coastal Development

- In 2014, travel and tourism generated US\$7.6 trillion—9.8% of total world GDP—and supported 1 in every 11 jobs
- 80% of all tourism takes place in coastal areas
- Highly dependent on environmental quality to attract visitors, but tourism development can introduce a host of environmental issues

## Risks:

- Loss of revenue from degradation of natural landscapes that attract tourists
- Damage to reputation and loss of customers due to environmental breaches

## Opportunities:

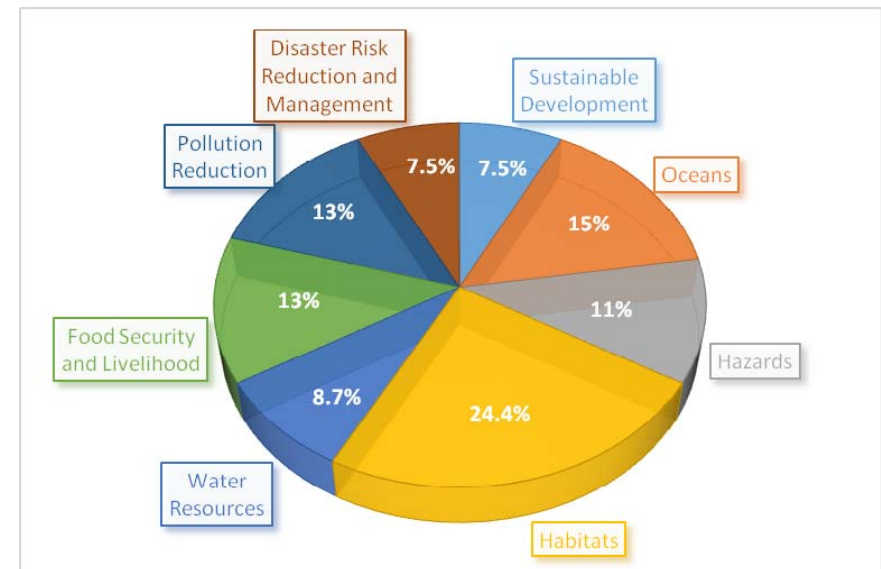
- Cost savings from more efficient use of resources
- Growing markets for sustainable tourism



# Integrated Approaches Essential for Blue Economy

**Conventional management approaches, which address challenges separately on a sector-by-sector basis, are typically not sufficient for solving complex problems in coastal and marine areas.**

- Important linkages exist between industries, for example:
  - Aquaculture, if not properly zoned, can affect ship navigation routes and tourism sites
  - Fisheries and tourism can both benefit from proper management of marine protected areas
  - Pollution from coastal development and manufacturing can damage tourism sites
  - Marine technology providers can help fisheries companies in combatting IUU fishing
- According to Economist report, leading countries on coastal governance and blue economy demonstrate a fundamental need for integrated approaches
- Across 12 countries in East Asia, a total of 255 ICM-related policies have been developed and implemented



# Major Trends that Could Effect Blue Economy

- Opening of arctic shipping lanes from the loss of summer ice due to climate change
- Impact of the forthcoming ASEAN economic integration
- Legally-binding treaty to protect marine life in areas beyond national jurisdiction
- Ocean health gaining prominence as a policy concern, e.g., G7 meeting, UN Sustainable Development Goals, COP21
- Blue economy investment and innovative financing mechanisms, e.g., blue bonds
- PEMSEA is launching a report: *Investment Landscape Mapping in East Asia 2015*, examining over US\$10 billion in financial funding flows to ICM projects in the region







## Conclusions

- A healthy ocean is vital to the region's economy. The only way to ensure long-term sustainability of both ecosystems and the economy is by transitioning from an ocean economy to a blue economy
- Blue economy offers a mindset for managing business risks, improving decision making, generating new opportunities and collaborating across sectors
- We have an opportunity to learn lessons from development of land-based resources. Can the blue economy offer more than simply doing less harm? Can it be something truly transformational, and sustainable?

### **Discussion questions for today:**

1. What is your industry and company stake in building a blue economy?
2. What are the primary business risks and opportunities emerging for your industry and company related to a blue economy?
3. What are the priority partnership needs and opportunities between industries for building a blue economy?
4. How can the business community and government partner in building a blue economy?

To download the full report and references, please visit  
[www.pemsea.org/our-work/blue-economy](http://www.pemsea.org/our-work/blue-economy)



# Industry Breakout Discussion Groups

**Objective:** Identify industry specific considerations related to sustainable development of coasts and oceans / blue economy growth (20 min)

- Fisheries & Aquaculture
- Oil & Gas
- Tourism & Development
- Shipping & Ports
- Environmental Services
- Coastal Manufacturing & Heavy Industry
- Other industries?

1. What risks does your industry face related to blue economy?
2. What opportunities could blue economy generate for your industry?
3. What are the biggest partnership needs for your industry, either with the government or with other industries?

- Industry report back to the group (15 min)

