

Presentation given at the Marine Katoomba meeting

**Katoomba XVI:
Building a Blueprint to Harness New Investment for the Protection
of Marine and Coastal Ecosystem Services**

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Hosted by the Katoomba Group



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Moving Forward in Forging New Market-based Approaches and Tools in Conserving Marine and Coastal Resources

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2010 Katoomba Group Meeting
Palo Alto, California



Topics

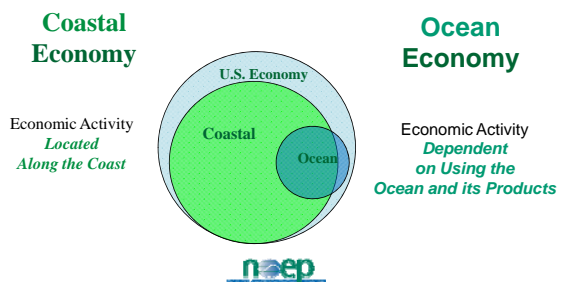
- Introduction
- Market Values for the Ocean and Coast
- Environmental Value Linked to Markets
- Market Failures Defeat Conservation
- Remedies
- Conclusions



Value of Oceans and Coasts



The Coastal and Ocean Economies



US Coastal Economy

- U.S. Coastal County Economy = \$6.7 T
- U.S. Coastal State Economy = \$11.4 T
- U.S. Total Economy = \$13.7T



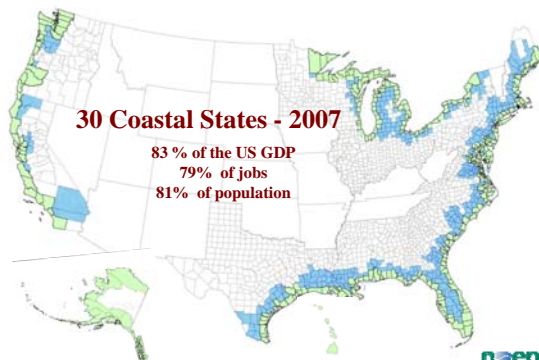
Coastal Data: 2007



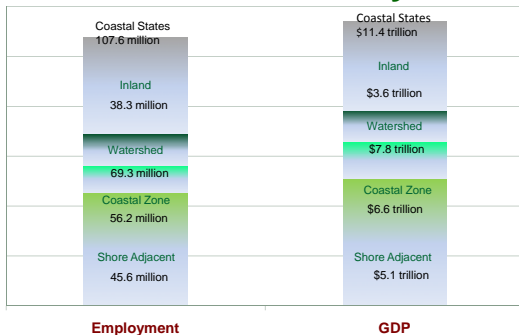
Watershed & Coastal Counties

30 Coastal States - 2007

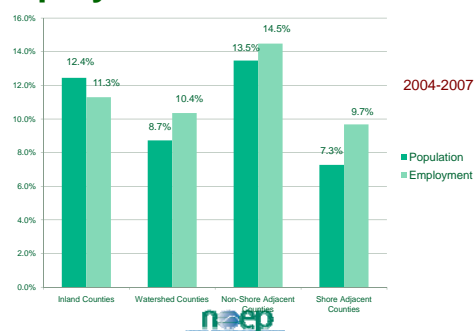
83 % of the US GDP
79% of jobs
81% of population



The Coastal Economy 2007



Population: Growth Inland Employment: Growth at Coast



Tourism

- Amount of ocean economy (coastal zips)
 - GDP: \$69,651,088,900
 - with multipliers - \$116,477,515,967
 - Employment: 1,737,156
 - with multipliers -2,272,200
- Coastal economy – (coastal counties)
 - Employment: 13,792,067
 - GDP: \$505,677,000,000



Beaches

Value of California's beaches estimated at >\$16 billion (2000)*



- Beach closures cause large annual economic losses to business, real estate, government
- Beaches are shrinking

*Kilbow and Pendleton, 2000



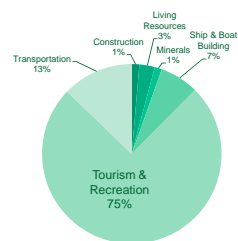
Ocean Economy...

***\$202 Billion, 2004**

*2004 data with multipliers includes these ocean-dependent sectors: Living Marine Resources, Offshore Minerals, Marine Construction, Ship & Boat Building, Coastal Tourism & Recreation, Maritime Transportation



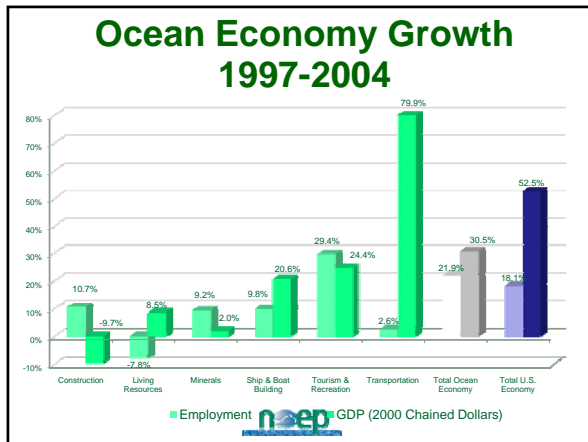
The Ocean Economy 2004



Employment

Gross Domestic Product





**But.....
this is only part of the
story..**

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Market Failures

- Externalities
- Pricing
- Hidden Values
- Regulation
- Information

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Agricultural Runoff (externality)

- Promotes eutrophication and toxicity
- Causes Harmful Algal Blooms (HABs)
- Losses to fishing industry and biodiversity

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Undervalued Uncaught Fish Stocks



Pricing and Regulation



Services and Assets NOT Traded in Markets

- **Biodiversity**

- Estuaries
- Watersheds
- Beaches
- Dunes
- Wetlands

- **Recreation**



Services with value

- Water quality
- Marine biodiversity
- Coastline and beach stabilization
- Fish nurseries



Remedies - MES

- Water Quality Trading
- Protection of Vulnerable Coastlines
- Protection of Food Supply
 - Preventing overfishing – tradable shares
 - Preserving biodiversity - offsets
- Ecotourism: pay for natural services that generate revenue



Government Policies that distort markets

- Agricultural subsidies for crops using high concentrations of fertilizers, etc
- Energy: Little or no incentives for reducing carbon emissions that harm the oceans
- No accounting for environmental assets and services...e.g. no green accounting



Government Remedies

- Payments to those who benefit from conservation but can't afford to pay for it, e.g. mangrove preservation.
- Agricultural Regulation/subsidies that inhibit overuse of nutrients and toxins
- Legislation for cap and trade system for pollutants
- Carbon offsets, fees or cap and trade



Solutions

- PES Payments for Ecosystem Services
- Coastal and marine management
- Buybacks to avoid excess trawling
- Marine Spatial Planning for Ocean Zoning
- Green Accounting for US
- Incentives for improved Agricultural Fertilizer and Pest Management
- Incentives for reducing CO2 emissions



Conclusions

- Effective fisheries management must reflect a balance between preservation and use based on both economic and scientific information
- Conservation of marine assets should be “marketized” as part of the economic system to account for “externalities and other market failures that have led to their decline.
- Conservation is not just about fisheries; biodiversity, estuaries, watersheds, beaches, ocean waters, shoreline stability are all contributors to ocean health and all are undervalued.



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