Small Sea Changes: BIG Infrastructure Impacts

THE ROLE OF OCEANS

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Gulf of Mexico Foundation
www.gulfmex.org
CLIMATE CONSIDERATIONS

- Ocean Temperature
- Sea Level Rise
- Ice Cap Condition
- Ocean Currents
- Weather
GEOLOGIC CONSIDERATIONS

- Subsidence
- Coastal Erosion
ECONOMIC CONSIDERATIONS
EMPLOYMENT AND BUSINESS

<table>
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<tr>
<th></th>
<th>1993</th>
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<tbody>
<tr>
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<td>85,634</td>
<td>122,475</td>
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PRODUCTIVE VALUE

Mexico 37.9 billion
United States 39.8 billion

OIL & GAS
RECREATION & TOURISM

PRODUCTIVE VALUE

Mexico 9.28 billion
United States 32.4 billion

EMPLOYMENT AND BUSINESS

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<td>26,270</td>
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### SHIP BUILDING & SHIPPING

**SHIP BUILDING**

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**SHIPPING/PORT**

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**ANNUAL PRODUCTIVITY**

- Mexico 53.7 million
- United States 331 million
EMPLOYMENT AND BUSINESS

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<tr>
<td>Employment</td>
<td>9922</td>
<td>8798</td>
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<tr>
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<td>683</td>
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PRODUCTIVE VALUE

Mexico 381 million
United States 685 million
2002
CUMULATIVE ANNUAL PRODUCTIVE VALUE
OF THE GULF OF MEXICO

$120.9 billion @ $23/barrel oil
$256.0 billion @ $85/barrel oil
POPULATION CONSIDERATIONS
PUBLIC HEALTH & CIVIL PROTECTION
• PUBLIC HEALTH
  – Seafood Quality
  – Water Quality

• ISSUES
  – Methylmercury
  – Vibrio
  – Red tide
  – Brown tide
CIVIL PROTECTION
INTERNATIONAL CONSIDERATIONS

United States – Mexico – Cuba – Caribbean Sea
MAPA FORESTAL DE LA REPÚBLICA MEXICANA
OCEAN MONITORING
OOI - OCEAN OBSERVATORIES INITIATIVE
IOOS - INTEGRATED OCEAN OBSERVING SYSTEM
GCOOS - GULF OF MEXICO COASTAL OCEAN OBSERVING SYSTEM
TCOON - TEXAS COASTAL OCEAN OBSERVATION NETWORK
GULF OF MEXICO OPPORTUNITIES

Collaboration

• Industry/Academia/Government

• Mexico/United States/Cuba