<u>The Socio-Political State of Policy and</u> <u>Management of Coasts and Oceans in</u> <u>the South Atlantic</u>

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<u>The Nature of Coastal and Marine</u> <u>Policy and Management</u>

ALL COASTAL AND MARINE POLICY AND MANAGEMENT DECISIONS HAVE BIOPHYSICAL, SOCIAL AND ECONOMIC <u>OBJECTIVES</u>



BIOPHYSICAL, SOCIAL AND ECONOMIC <u>IMPACTS</u>

<u>The Nature of Coastal and Marine</u> <u>Policy and Management (cont.)</u>



<u>ALL MARINE POLICY AND MANAGEMENT</u> DECISIONS INVOLVE <u>TRADEOFFS AMONG</u> <u>BIOLOGICAL, SOCIAL AND ECONOMIC</u> <u>OBJECTIVES AND IMPACTS</u>

THAT IS THE PROCESS OF GOVERNANCE

<u>The Nature of Coastal and Marine</u> <u>Policy and Management (cont.)</u>

IF WE DO NOT HAVE FULL DATA AND INFORMATION ON BIOPHYSICAL, SOCIAL AND ECONOMIC SYSTEMS, WE WILL NOT KNOW HOW TO JUDGE THESE NECESSARY TRADEOFFS

<u>Sectoral and Integrated</u> <u>Initiatives</u>

Marine Fisheries

- Strong individual state marine fishery policy and management programs
- Unique coast-wide policy and management in the Atlantic States Marine Fisheries Commission (Atlantic Coastal Fisheries Cooperative Management Act, 1993)
- Increasingly 'tight' federal regulations under the Magnuson-Stevens Fishery Conservation and Management Act/South Atlantic Fishery Management Council

Coastal Zone Management

• Historically strong individual state policy and management programs

• State systems under significant challenge, varying by state

• Infrequent inter-state programmatic cooperation on interstate coastal zone policy and management

Ocean Policy and Planning

- State-by state activities, largely driven by offshore energy proposals
- Some multiple-use ocean planning initiatives (North Carolina, Florida)
- Little historic inter-state collaboration
- No policy and management programs that cross the landsea boundary (watershed to EEZ limit)
- Governor's South Atlantic Alliance?



The Carolina Capes Coastal and Ocean Use Framework Area



The Carolina Capes Coastal and Ocean Use Framework

The objectives of the Carolina Capes Coastal and Ocean Use Framework, which will be further defined and elaborated at a 2014 workshop in North Carolina, will be to:

- 1) <u>Promote full and responsible human use of the</u> resources and environments of the area;
- 2) Protect the unique biophysical and cultural resources and environments of the area;
- 3) Provide a <u>flexible</u>, <u>adaptive</u>, <u>participatory</u> <u>framework</u> to guide the interaction of the different human uses of the area.

<u>The 2014 Carolina Capes Coastal and</u> <u>Ocean Use Framework Workshop</u>

Involved parties will be, among others:

-State of North Carolina

- -Governors' South Atlantic Alliance
- -NOAA/Commerce
- -Department of Defense
- -Department of Interior (BOEM)

-Sargasso Sea Alliance/Government of Bermuda

Climate Change and Sea Level Rise

Where people are going...

• To cities







<u>And...</u>

-Of the thirty largest cities in the world, twenty of them are in low-lying coastal areas and therefore in some danger from global climate change and associated sea level rise

- -In the <u>South Atlantic region</u> there are hundreds of small cities, towns and rural populations at risk
- Others, even though they are not on the coast, are low-lying and susceptible to inundation
 There are millions of hectares of "natural
 - infrastructure" that will be threatened

The Big Train Wreck...

Coastal Development



Sea Level Rise



San Francisco Bay Scenarios for Sea Level Rise South Bay



Flooded area represents extent of inundation as a result of 1 meter sea level rise at high tide





Atlantic Beach 1m of Sea Level Rise



- Projected Shoreline with 1m of Sea Level Rise

Area that will be continuously submerged with 1m of SLR

K Area that will be submerged during average spring tide





Percentage of Town Totals





This is a new challenge.....

Never before in modern human history (with significant built environments) have humans been faced with a period of significant sea level rise



Mitigation or Adaptation?

There is nothing that humans can and will likely do between now and 2100 that will significantly slow the rate of sea level rise between now and 2100

This is an especially difficult challenge because.....

- Although the future (rising sea levels) is clear, the timing is uncertain
- The time frame is beyond current political cycles
- We have never faced this challenge before
- We lack the law and policy tools
- <u>Some people do not believe any of this!</u>



Both of these challenges -- ocean planning and integrated coastal management -- and many others like them, will require:

1) Full biophysical, social and economic characterization;

2) New, innovative, participatory policy and management regimes; and

3) The cooperation of the South Atlantic States....

....such as the Governor's South Atlantic Alliance?