



Caribbean Regional Sustainable Tourism Development Programme
CTO Lot 3: Sustainable Tourism Policy Development

International Policy and Market Response to Global Warming: Challenges and Opportunities for Caribbean Tourism

CTO /CRSTDP Regional Workshop #4

Nassau, The Bahamas, 18-19 March 2008

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CLIMATE CHANGE AND TOURISM IN THE CARIBBEAN: Brief Overview

Dr. Murray C. Simpson





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Structure of Presentation

1. Key Physical Impacts
 2. Emissions
 3. Influencing Factors
 4. Climate Policy
 5. Policy and Market Response
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KEY PHYSICAL IMPACTS





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KEY PHYSICAL IMPACTS

- Air Temperatures
 - Sea Surface Temperatures,
 - Sea Level Rise
 - Erosion
 - Precipitation Changes – drought and flood
 - Extreme Conditions
 - Seasonality Shifts
 - Natural Heritage and Biodiversity Shifts and Loss
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KEY PHYSICAL IMPACTS IN THE CARIBBEAN #1

Anticipated and Observed climate change impacts...

- Sea level rise

Saline intrusion to freshwater aquifers

Coastal flooding and erosion

- Increased temperatures

Heat stress

Biodiversity loss and change (habitats and species)
(UNESCO)

Coral bleaching

Increased emergence of vector-borne diseases



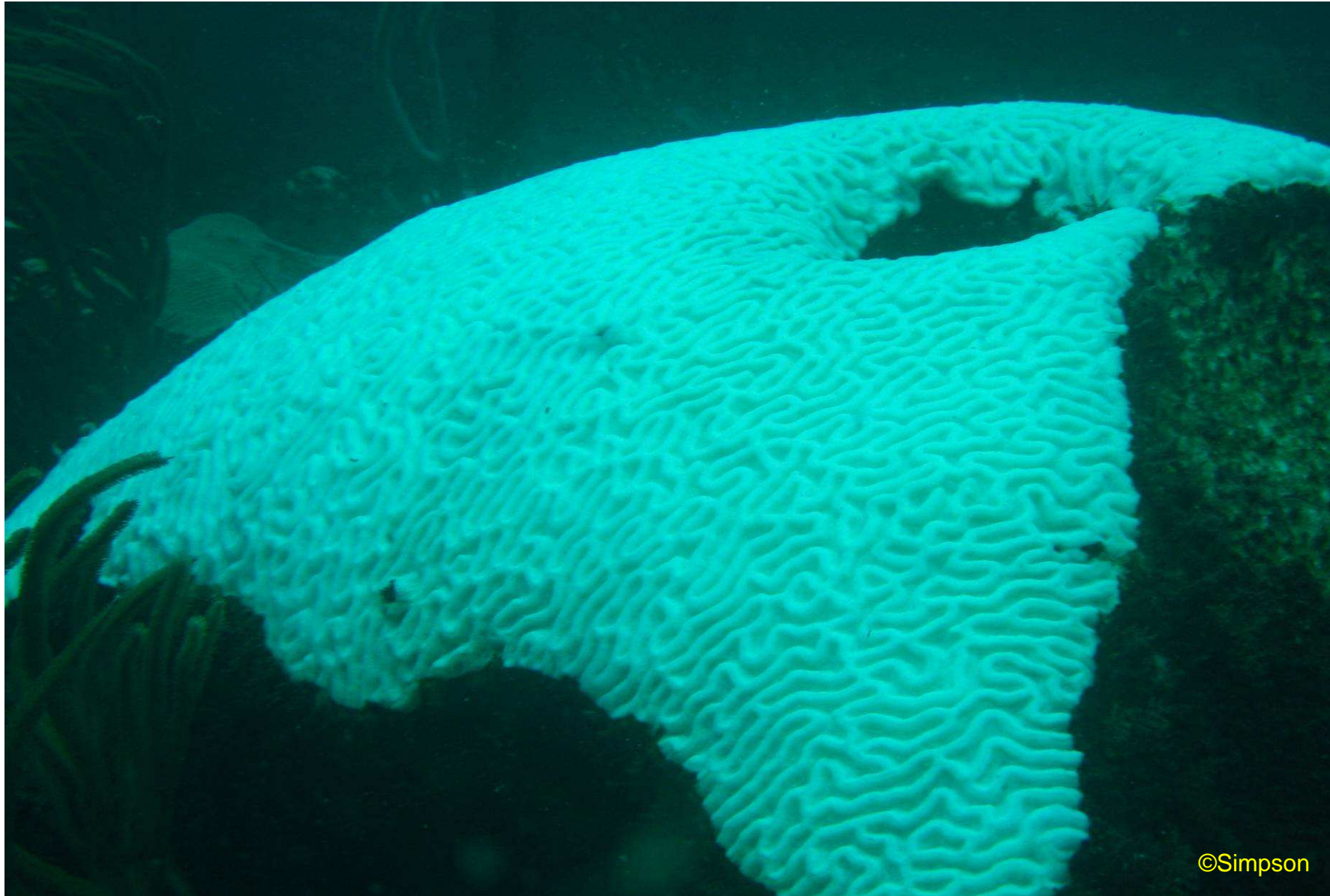


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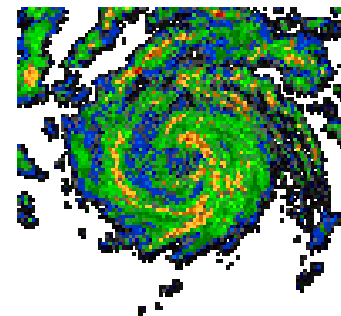
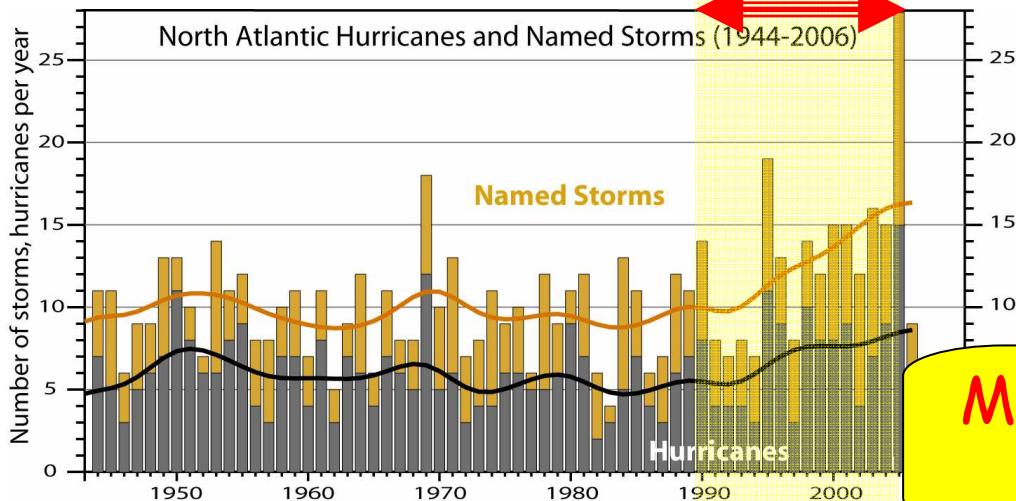


KEY PHYSICAL IMPACTS IN THE CARIBBEAN #2

- Changes in rainfall patterns
 - Droughts or floods
 - Decreased fresh water availability/ secondary industries
- Increased intensity and frequency of storm activity
 - Direct damage of infrastructure/comms/services
 - Loss of lives
- Direct damage to tourism plant and natural resources
 - Coral reefs
 - Beaches
- Seasonality shifts
- Push-Pull factors
 - Milder winters in the North

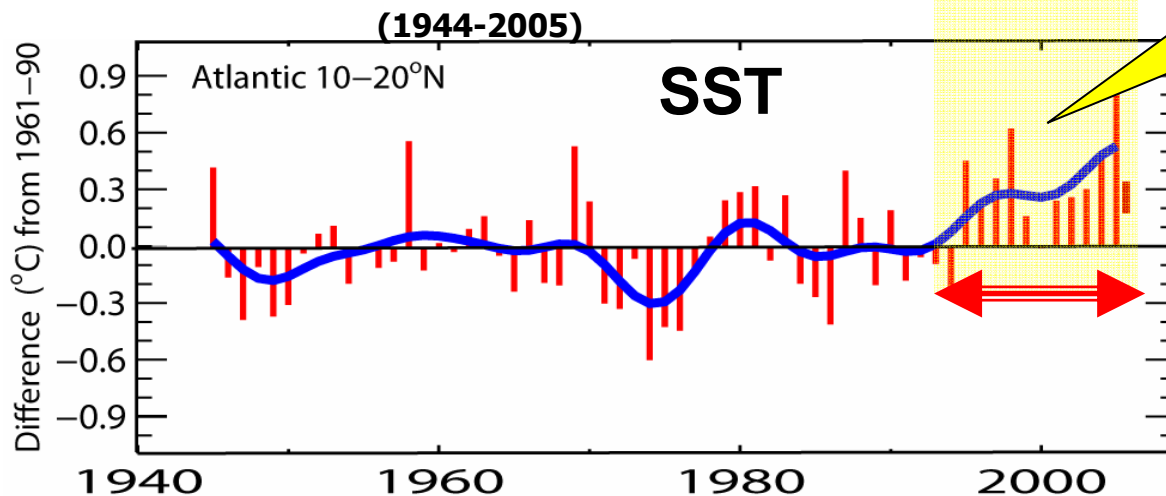


North Atlantic hurricanes have increased with SSTs



N. Atlantic hurricane

Marked increase after 1994

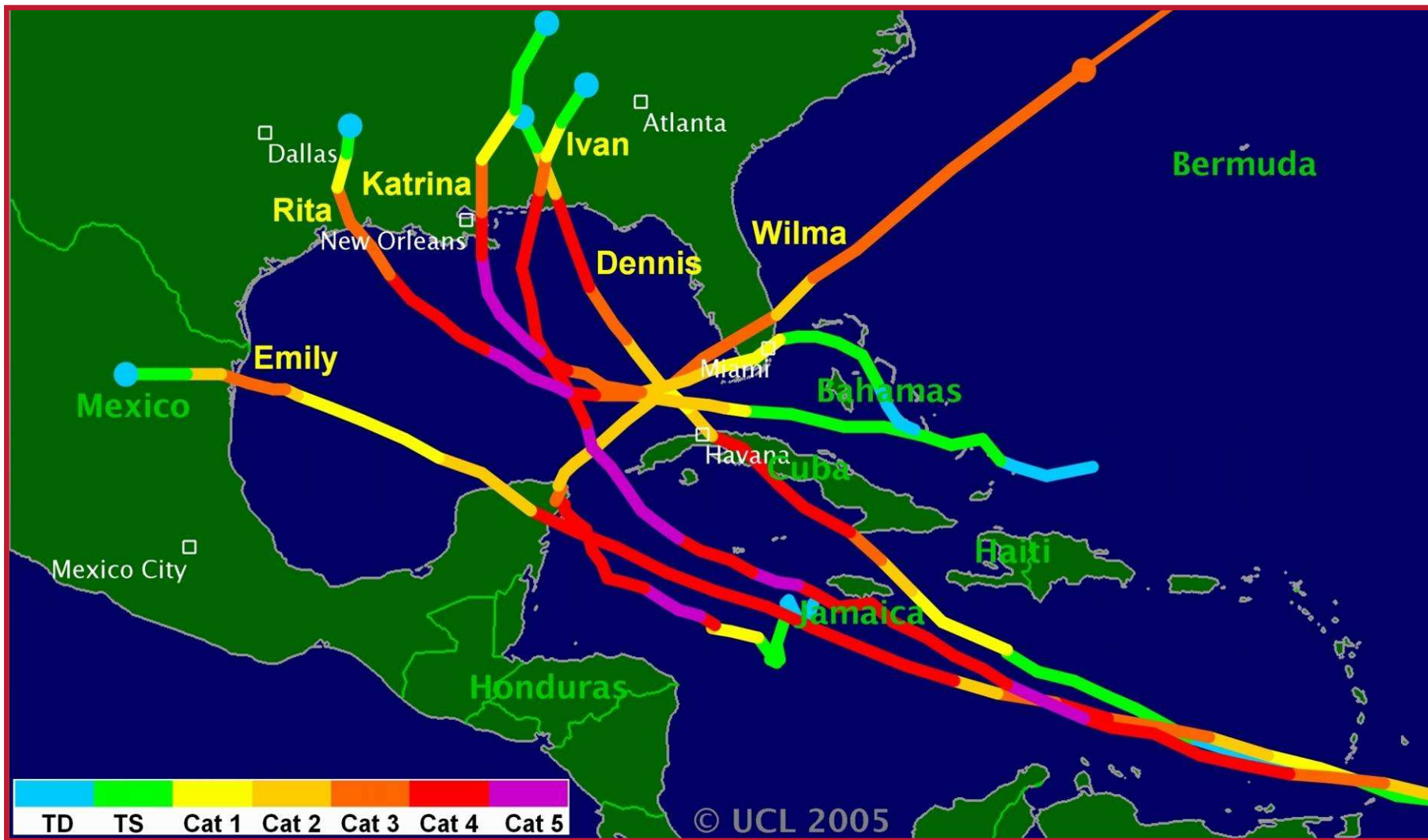


aircraft surveillance.

Global number and percentage of intense hurricanes is increasing



Major Gulf Hurricanes in 2004/5





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KEY PHYSICAL IMPACTS IN THE CARIBBEAN #3

SOME RESULTS:

- Loss of attractiveness of the region as a destination
 - Impacts on health – emergence of dengue, malaria,
 - Reduced dive tourism if coral reefs are damaged
- Loss of employment in the industry
- Loss of livelihoods
- Insurance costs in vulnerable areas
- Increased operating costs (e.g. water and energy i.e. a/c)
- Resultant Changes in visitation patterns and flows



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CARIBBEAN EMISSIONS





Emissions from tourism in the Caribbean

- Caribbean as a whole (all sectors) only contributing 1% of global emissions
 - BUT: Caribbean tourism extremely energy-intensive if calculated on a per tourist basis
 - Region as a whole possibly the most energy intense mass tourism destination in the world due to cruise ship and aviation-based tourism product
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INFLUENCING FACTORS





Factors influencing tourist arrivals

- Environmental awareness influencing decision-making
 - Global or regional insecurity situations (e.g. SARS)
 - Fuel price developments
 - Climate policy
 - Price (affected by market forces, taxes, off-sets, ETS)
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CLIMATE POLICY





Climate policy: Brief Overview

- Strong climate policy in the European Union (since 2005)
 - Expected strong climate policy in Australia/New Zealand (2009 onwards?)
 - Expected climate policy in North America (2009 onwards?)
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POLICY AND MARKET RESPONSE

Report Findings 1

Dr. Daniel Scott



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Q & A / PANEL DISCUSSION MACRO ISSUES & POLICY ISSUES OF CLIMATE CHANGE AND TOURISM

