COASTAL TOURISM & CLIMATE CHANGE

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• Supporting and enhancing livelihoods, economies and environments around the world

• INTASAVE-CARIBSAVE specialise in innovative climate change solutions and sustainable international development

• Global not-for-profit organisation with offices in Africa, Caribbean, Asia-Pacific, UK and China; operations in over 30 countries.
Tourism Environmental Challenges

Changing Climate - Changing Coasts

- Rising sea levels
- Intense storms and rainfall events, and coastal siltation
- Beach Erosion
- Higher water temperatures
- Coral Bleaching
- Fish migration
- Ocean acidification
Observed climate change
- Warming trends and increasing temperature extremes have been observed;

Projected climate change
- Tropical and Extra-Tropical Cyclones - likely to vary by region in the future and uncertain frequency and intensity.
- Monsoons are very likely to increase in East, South and Southeast Asia.

Impacts & vulnerabilities
- Multiple stresses caused by rapid urbanization, industrialization and economic development will be compounded by climate change
- The impacts of on food production & food security in Asia will vary by region with many regions to experience a decline in productivity
- Sealevel rise will inundate low lying areas and will especially affect rice growing regions.
- Water is expected to be a major challenge for most of the region due to increased water demand and lack of good management
- Coastal and marine systems and coral reefs in Asia under increasing strain
- Extreme climate events will have an increasing impact on human health, security, livelihoods, and poverty.
Coastal and Island Tourism

Impacts: Sea level rise poses a risk to major coastal tourism infrastructure, resorts and attractions around the world. Erosion of beaches will reduce the attractiveness of many coastal destinations, reducing the prices coastal resorts can charge for accommodation and the value of coastal vacation properties.

Adaptations: The insurance industry as already begun to adapt to climate change. Property insurance in high-risk areas, such as coasts in tropical cyclone regions, is anticipated to increase. Uninsurable areas will influence tourism development.

Impacts: Islands are among the most water scarce destinations in the world and climate change is expected to reduce freshwater resources. Water costs for tourism will increase and tourism may need to become more efficient with its water use, with high water use tourism (e.g., golf tourism) restricted in some areas.

Impacts: It is anticipated that as tourists from temperate nations adapt their travel patterns to take advantage of new climatic opportunities closer to home, demand for subtropical and tropical destinations will decline.

Impacts: If more stringent global aviation mitigation policies are passed, more significant decreases in tourist arrivals are projected for small island developing states.

Ocean and Marine Life Tourism

Impacts: The reduction of sea-ice is expected to promote an already rapid increase in Arctic cruises. Much improved search and rescue capabilities are needed to develop this market safely.

Impacts: Ranges of fish and marine fauna will change as the oceans warm, impacting sport fishing and marine animal watching.

Risks: Coral reefs draw thousands of visitors each year for scuba diving and snorkelling. 2°C of warming by 2050-2100 would see reef structures degrade with important consequences for dive tourism operators and destinations. Shipwrecks and artificial reefs can provide alternative attractions for recreational divers.

Impacts: Cruise tourism is among the most emissions intensive and will be influenced by future mitigation policies related to marine transport as well as air travel.

Impacts: The combination of rising water temperatures and increasing ocean acidification, caused by the absorption of carbon dioxide, spell particular peril for reef ecosystems and the dive tourism they support. Warming sea temperatures will also change the ranges of key sport fish and marine mammals.

ECF/WTTC (INTASAVE 2014)
Adaptation for the Tourism Industry

When is adaptation needed?
...when the anticipated risks or experienced impacts of climate change require action to ensure the safety of populations and the security of assets, including ecosystems and their services

What is adaptation?
...adjustment to actual or expected climate and its effects

Anticipatory
- building resistance (worst possible case)
- building resilience (quick recovery)
- static robustness
- dynamic robustness (flexibility)

Reactive
- emphasis on building resistance and building resilience
- need to move towards more integrated approach

Autonomous adaptation

No regret options

Adaptation goals include:

What are adaptation options?
- engineering and other technical measures
- strategy and policy measures
- non-structural measures

Who are the main actors?
- national governments
- local government, NGO, civil society and private sector

What is required?
- information
- public and private sector financing
- acceptance policy making complex & ongoing
- vulnerability and risk can be difficult to assess if data is of low quality
- integrated, interdisciplinary & cross-sector approaches
- adequate adaptive response

What is the adaptation challenge?
- seldom a single measure
- integrated, cross-sector approaches
- no standardized methods for conducting VA & RA
- adaptation presents us with a ‘wicked problem’
Inter-Sectoral linkages and Tourism

EXAMPLES OF INTER-SECTORAL LINKAGES BETWEEN TOURISM AND OTHER SECTORS
Climate impacts and adaptation/mitigation measures taken by these sectors can have policy, regulatory and physical risk implications for the tourism sector.
Engineering Options – Approach/Examples

• Sound science, detailed planning and intensive modeling
• Integrate climate change knowledge and expertise
• Public consultations
• Quality engineering
• Maintenance and monitoring
• Soft and Hard!
• Integrated with management of coastal ecosystems – coral reef
Ecosystem- Based Adaptation

“Ecosystem-based adaptation (EbA) harnesses the adaptive forces of nature and provides one of the most widely applicable, economically viable and effective tools to combat the impacts of climate change.

The low-cost, flexible approaches of EbA can also provide multiple other benefits, such as poverty alleviation, sustainable development, carbon storage and biodiversity protection.”

Dr Pam Berry, Environmental Change Institute, University of Oxford
Science for Environment Policy
THEMATIC ISSUE: Ecosystem-based Adaptation
March 2013 Issue 37
Key Stages in Ecosystem-Based Adaptation

**Stage 1 – Good Scientific Understanding of Ecological and Social System**

**Stage 2 – Appropriate Policy Frameworks and Planning**

**Stage 3 – Making it Happen: Incentives for short, medium and long Term**

- Administer Grants and Provide Technical support
- Focus on livelihoods
- Sectors; MSMEs & Big Business e.g. tourism
- Develop Partnership with Private sector
- Sustainable financing linked to local livelihoods
- Innovative solutions – hard/soft engineering
- Focus on Gender – the role of women
Example of INTASAVE’s Tourism Work

- Climate Change Risk Atlas; 15 Countries
- Quantification & Magnitude; SLR Loss and Damage
- Climate Change Vulnerability, Impact and Adaptation Analysis in the Caribbean Region, 2013
- Climate Change, Coastal Community Enterprises – Adaptation, Resilience and Knowledge (CCCCE-ARK) Project, 2012
- EU Sustainable Tourism Indictors, 2012
- Caribbean Fish (C-Fish) Sanctuaries Initiative, 2009
- Domestic policy work & advice for governments in SIDS
- 10 major projects profiled in our leaflet
Thank You

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