

It is with great pleasure that the co-sponsors of “Integrating Climate Adaptation Planning into Coastal Zone Management with Ecosystem Services” invite you to the offices of Belize’s Coastal Zone Management Authority and Institute in Belize City, Belize on October 9-11, 2012.

You are cordially invited to be a select participant at this Caribbean Regional Conference that will:

1. Share lessons and innovations across the Caribbean in developing and implementing coastal zone management and climate adaptation plans.
2. Explore the importance of ecosystem services for decision-making related to climate change and coastal zone management.
3. Present practical tools and strategies for addressing climate change and coastal zone management.

Featured speakers include:

- The Honorable Lisel Alamilla, Belize’s Minister of Forestry, Fisheries, and Sustainable Development
- Dr. Mary Ruckelshaus, Managing Director of the Natural Capital Project, Stanford University
- Mr. Peter Murray, Sustainable Development Officer at the Organization of Eastern Caribbean States

Please R.S.V.P. to Ms. Chantalle Clarke, Coastal Planner at [coastalplanner.czmai@gmail.com](mailto:coastalplanner.czmai@gmail.com) by September 20, 2012.



Co-sponsors of the conference include the Coastal Zone Management Authority and Institute, the World Wildlife Fund, the Natural Capital Project, and the Inter-American Development Bank.

# Integrating Climate Adaptation Planning into Coastal Zone Management with Ecosystem Services Workshop

Belize City, Oct 9 - 11

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## **Tentative Agenda:**

Tuesday Oct 9 – Facilitated by Vincent Gillette, Coastal Zone Management Authority and Institute

8:30 am	Registration
9:00 am	Opening Remarks – CEO, Dr. Wendell Parham or Minister Hon. Lisel Alamilla
9:15 am	Opening Remarks about climate adaptation and coastal zone planning - Vincent Gillett, Coastal Zone Management Authority and Institute ( <i>confirmed</i> )
9:30 am	Intro to workshop and goals - Mary Ruckelshaus, The Natural Capital Project, Stanford University ( <i>confirmed</i> )
9:45 am	Introductions
10:00 am	The Belize Coastal Zone Management Plan: the process and the zoning scheme – Chantalle Clarke, Coastal Zone Management Authority and Institute ( <i>confirmed</i> )
10:30 am	Q & A - facilitated by Vincent Gillett, Coastal Zone Management Authority and Institute
10:45 am	Coffee break
11:00 am	Using Ecosystem Services to Inform Marine Spatial Planning – Mary Ruckelshaus, Natural Capital Project, Stanford University
12:00 pm	Lunch
1:00 pm	Coastal and marine spatial planning in the Caribbean – Peter Murray, OECS Biologist & Sustainable Development Officer. <i>Includes Q &amp; A.</i>
1:20 pm	Coastal zone management in Barbados: successes and challenges – Dr. Leo Brewster from the Barbados Coastal Zone Management Unit. <i>Includes Q &amp; A.</i>
1:40 pm	Experiences with implementation of a coastal zone plan in Jamaica – Sean Green, Jamaica's National Environment and Management Planning (NEPA). <i>Includes Q &amp; A.</i>

2:00 pm

Challenges in coastal and marine spatial planning in the Caribbean

*2 to 3 themed discussion groups, facilitated by WWF*

Introduction to InVEST: download and overview of models

*1 technical group, facilitated by NatCap*

3:00 pm          Coffee break

3:15 pm          Stakeholder engagement for marine spatial planning – Samir Rosado, Coastal Zone Management Authority and Institute

4:00 pm          Introduction to climate adaptation planning and Day 2 – Katie Arkema, Natural Capital Project, Stanford University (*confirmed*)

4:15 pm          Plenary discussion: How are challenges in coastal zone management in Belize and the Caribbean similar or different from challenges for climate adaptation planning? – facilitated by Marianne Fish, WWF Canada (*confirmed*)

5:00 pm          Close of Day 1

7:00 pm          Planned dinner

Wednesday Oct 10 - Facilitated by Colin Gillette, Coastal Zone Management Authority and Institute

9:00 am          Intro to workshop Day 2 – Colin Gillett, Coastal Zone Management Authority and Institute and Katie Arkema, Natural Capital Project, Stanford University (*confirmed*)

9:15 am          Panel on climate adaptation for people and the environment – facilitated by Nadia Bood, WWF Belize. *Includes 5-minute introduction to panel. (confirmed)*

9:20 am          The need for climate adaptation in the Caribbean & adaptation options - Marianne Fish, WWF Canada (*confirmed*)

9:35 am          A national approach to climate adaptation in Belize - Ann Gordon, Belizean representative to the UNFCCC & member of the National Climate Change Committee

9:50 am          Q & A

10:00 am          Coffee break

10:15 am          Preparing for climate change-related disasters in Jamaica - Ronald Jackson of the Office of Disaster Preparedness and Emergency Management of Jamaica

10:30 AM          Preparing for climate change-related disasters in Belize - Major Shelton DeFour, National Emergency Management Organization of Belize

10:45 am          Integrating climate adaptation into protected area management in the Caribbean - The Nature Conservancy

11:00 am          Facilitated Q & A and discussion – Nadia Bood, WWF Belize

*Linking back to ICZMP: How do you address climate change and adaptation in coastal zone management? What are realistic climate adaptation options for the Caribbean and their potential costs and benefits?*

- 12:00 pm Lunch
- 1:00 pm Using ecosystem services to inform climate adaptation strategies - Katie Arkema, Natural Capital Project, Stanford University (*confirmed*)
- 1:30 pm Facilitated discussion and feedback from workshop participants on ES cost/benefit approaches for evaluating climate adaptation options - facilitated by Amy Rosenthal, Natural Capital Project/WWF US (*confirmed*)
- 2:15 pm Coffee break
- 2:30 pm Scenarios of future changes and adapting to them – Amy Rosenthal, Natural Capital Project/WWF US (*confirmed*)
- 2:45 pm
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| Developing climate scenarios for the Caribbean: effects on ecosystem services   | Climate scenarios and InVEST: what we learn about ecosystem services  |
| <i>Groups look at possible climate scenarios and discuss potential effects on ecosystem services, facilitated by WWF/NatCap</i> | <i>1 group runs a climate scenario in InVEST (either SLR in Coastal Vulnerability or temperature in Lobster Fisheries), facilitated by NatCap</i> |
- 4:00 pm Report back and plenary discussion: climate scenarios and effects on ecosystem services  
*Report back on scenarios created and implications for adaptation planning and change in ecosystem services. What do we know? What are the main uncertainties? How does this help us make decisions among adaptation options?*
- 4:45 pm Wrap up and evaluation
- 5:00 pm Close of Day 2
- 5:15 pm Informal happy hour

#### Thursday Oct 11 – Technical Training Only

- 9:00 am Getting started using InVEST for MSP and climate adaptation: InVEST folder structure, accessing and using sample data to perform scenario analysis - Gregg Verutes, Natural Capital Project (*confirmed*)
- 9:30 am Deep dive in InVEST: running and interpreting model outputs – Katie Arkema, Natural Capital Project, Stanford University (*confirmed*)
- 9:35 am Intro to ES modeling framework; using InVEST to inform MSP and climate adaptation; conceptual underpinning and limitations of Coastal Vulnerability model
- 9:45 am Explore coastal vulnerability model inputs
- 10:00 am Load coastal vulnerability model interface
- 10:15 am Run coastal vulnerability model for current scenario/Coffee break
- 10:30 am Coastal Vulnerability outputs

10:45 am	Linking to social metrics of vulnerability to evaluate management strategies
11:15 am	Climate adaptation: Run model for additional SLR scenario
11:30 am	Lessons from using InVEST – Maritza Canto, Coastal Zone Management Authority and Institute ( <i>confirmed</i> )
12:00 pm	Lunch Break
1:00 pm	Using InVEST to inform climate adaptation: Interpret outputs from morning session – Katie Arkema, Natural Capital Project ( <i>confirmed</i> )
1:15 pm	InVEST in your regions - preparing inputs and finding data – Gregg Verutes, Natural Capital Project ( <i>confirmed</i> )
1:30 am	Further adventures in InVEST: exploring 2 or 3 additional models in break-out groups – facilitated by Gregg Verutes, Katie Arkema, Joe Faries, Natural Capital Project, Stanford University ( <i>confirmed</i> )
	<i>Note that this time will include a break for coffee while models are running</i>
3:00 pm	Post-processing and visualizing results – Gregg Verutes, Natural Capital Project
3:30 pm	Bringing InVEST home
4:30 pm	Plenary discussion, questions and wrap up
5:00 pm	Close of Day 3