



## **Blue Carbon Scientific Working Group**

**2<sup>nd</sup> Meeting**

**26-29<sup>th</sup> July, 2011**

**Grand Bali Beach Hotel  
Sanur  
Bali 80032, Indonesia**

### **AGENDA**

**With thanks to our sponsors:**

thewaterloofoundation\*



**We gratefully thank the Government of Indonesia for hosting this workshop**

## Tuesday 26<sup>th</sup> July

9:00            Official Welcome

Welcome by Dr. Tonny Wagey  
Senior Scientist, Agency for Marine and Fisheries Research  
Government of Indonesia

Participant Introductions

9:30            Overview of Coastal Blue Carbon Program and Scientific Working Group

*Dr. Emily Pidgeon (Conservation International)*  
*Moderator: Dr. Steve Crooks (ESA PWA)*

- Overall (2 year) Working Group Objectives
- Brief Summary of 1<sup>st</sup> meeting
- Recent activity – meetings and discussions
- Working Group objectives and workshop outputs for this meeting

- 1) Developing Best Practice Guidance:
  - a. National Assessments of Carbon Sinks and Emissions
  - b. Field Data Collection

- 2) Developing a Global Coastal Carbon Data Archive

Discussion

10:30          Coffee

11:30          Blue Carbon Policy

*Moderator: Dr. Boone Kauffman (Oregon State University)*

- Blue Carbon Policy Working Group – update from Dorothee Herr (IUCN)
- UNEP Working Group

*Dr. Jerker Tamelander (UNEP)*

12:30          Lunch

- 13:30 Overview of progress since the 1<sup>st</sup> meeting (5-15 min presentations)  
*Moderator: Dr. Emily Pidgeon (Conservation Int.)*
- Discussions to be kept brief – update to ongoing activities
- Updating IPCC 2006 Guidance on Wetlands  
*Dr. Boone Kauffman(OSU)*  
*Discussion point: what support can the working group provide the IPCC TSU wetlands team?*
- Carbon Store by mangroves  
*Dr. Boone Kauffman (OSU)*
- Carbon emissions from degraded mangroves  
*Dr. Cathy Lovelock (U. Queensland)*
- Carbon storage in seagrasses  
*Dr. Nuria Marba (Instituto Mediterráneo de Estudios Avanzados)*
- Approved CDM Methodology: Afforestation and Reforestation of Degraded Mangroves  
 Update: VCS AFOLU Requirements under revision to include wetlands  
*Dr. Iginio Emmer(Silvestrum)*
- Global estimates of emissions, locations of hotspots  
*Dr. Steve Crooks (ESA PWA)*
- Quantifying mangrove loss in Kalimantan by remote sensing  
*Dr. Faiz Rahman (Indiana University)*
- Other activities – open forum discussion
- 15:45 Coffee
- 16:00 Presentation on sampling protocols for quantifying carbon storage in mangrove ecosystems, Indonesia  
*Dr. Daniel Murdiyarso (CIFOR)*
- 18:00 **Opening Reception**  
**sponsored by**  
**Intergovernmental Oceanographic Commission (IOC)**

## Wednesday 27th, July 2011

9:00            Developing Best Practice Guidelines for:  
1) National Assessments of Coastal Carbon Stocks and Emissions; and  
2) Field Assessment Approaches for Assessing Wetland Carbon Stock,  
Sequestration Rates, Emissions Rates.

*Moderator: Dr. Emily Pidgeon (Conservation Int.)*

Opening and outlining objectives for the day:

*Dr Steve Crooks*

Discussions points: aim to scope out elements for two report outlines.

- 1- To support the IPCC TSU update the 2006 wetlands guidelines
- 2- To guide standardized field data collection

Plenary Discussion: Identifying best practice key elements

10:00            National assessment of carbon stocks and emissions

Discussion groups:

- Tidal marshes (Moderator- Dr. Pat Megonigal, Smithsonian Environmental Research Center)
- Mangroves (Moderator- Dr. Catherine Lovelock, U. Queensland)
- Seagrass (Moderator- Dr. Jim Fourqurean, Florida International University)

12:00            Lunch

13:00            Field Assessment Guidelines for Assessing Wetland Carbon Stock,  
Sequestration and Emissions

Discussion groups:

- Tidal marshes (Moderator- Dr. Pat Megonigal)
  - Mangroves (Moderator- Dr. Cath Lovelock)
  - Seagrass (Moderator- Dr Jim Fourqurean)
- (may be able to combine tidal marshes and mangroves?)

Discussion:

1. Are there standard approaches to quantifying carbon pools that can be adopted, or recently developed approaches that the groups might review?

Assessing carbon pool stocks: above ground biomass, below ground biomass, deadwood (if applicable), litter (if applicable), organic soils.

2. Quantifying carbon sequestration- a number of techniques exist for measuring accretion and carbon contentment can / should we standardize or recommend preferred techniques?

3. Assessing emissions from degraded wetlands:

Is a stock change approach adequate? When should we measure gaseous flux? Can we develop simple indicators?

Other general discussion points? Application of remote sensing Samples density and replication. Are there low and high tech alternatives that can be applied? Clarify when methane emissions should be monitored.

- 15:00 Group discussion: Presentation of Discussions
- Challenges to drafting a guidelines document?
  - Post meeting activities and roles – task group or groups?
- 15:45 Coffee
- 16:15 Group discussion: Briefing document for UNFCCC SBSTA and other commissions.  
*Dorothee Herr and Steve Crooks*  
Aim – draft a short briefing note defining the status of the science and level of confidence in quantification.
- 17:30 Close

## Thursday 28<sup>th</sup> July, 2011

9:00            Developing a Global Coastal Carbon Data Archive  
                    *Moderator: Dr. Maciej Telszewski (IOC)*

- Outline of GCCDA proposal (Telszewski , **15min**)
- Outline of ReBENTOS project – Brazilian contribution to Global Coastal Carbon Data Archive (Dr. Margareth Copertino)
- Presentation of Global Marine Data Partnership – (Wood, **15min**)

*(UNEP-WCMC maintains foundational datasets for blue carbon mapping and planning, including mangroves, seagrasses, and saltmarshes. UNEP-WCMC will present its new partnership model and technical approach to achieving continued and accelerated improvement of these datasets. This partnership will focus on improving spatial and temporal resolution, as well as establishing and collating standardised measures of condition of these ecosystems to enable more consistent assessments of these ecosystems. Background document to be attached to the final agenda)*

- Presentation of Citizen Science Games, types, QA, conditions for success and relevance to coastal habitat and carbon mapping – (Wood or Mills (UNEP-WCMC), **15min**)

*(Citizen Science is an emerging approach to collating and/or processing large amounts of data that would typically not be possible with usual research resources, by making use of larger communities citizens for data gathering, processing, or interpretation. We will present the principles of Citizen Science, and the options for applying it to blue carbon mapping, including mechanisms for achieving quality assurance of the data thus provided. Background document to be attached to the final agenda)*

Discussion (**45min**)

10:30            Coffee

10:45            Briefing on breakout groups  
                    Objectives:

- to develop draft core attribute lists for each of the 3 datasets, perhaps in 3 levels (minimum, ideal, nice to have)
- to develop a draft specification for an online validation and ground-truthing tool – user profile(s) and functionality needs
- to develop meta data form for data gatherers (content, format)

11.00 Breakout Groups

- (BG1) Tidal marshes : output- draft list of core attributes
- (BG2) Mangroves: output – draft list of core attributes
- (BG3) Sea Grass: output – draft list of core attributes
- (BG4) Defining functionality needs and user profile(s) for validation & ground-truthing tool – how can we formulate a citizen science game that attracts the right size and technical capability of the community

1200 Breakout groups report back – PowerPoint presentations (3 slides each max)

12.30 Lunch

13:30 Discussion on proposed functionality needs for attribute data submissions – community size, technical capabilities, access to internet, transparency, QA

- Group brainstorm of functionality needs and user profiles for attribute data submission and storage, QA, etc
- Other business.....

15.15 Recap of all outputs developed in the day, and summary of next steps  
-Task team to be formed

15:45 Coffee

16:15 Next steps for Blue Carbon Working Group  
Moderators: Dr. Emily Pidgeon (CI) and Dr. Steve Crooks

- Outline immediate products from workshop.
- Timeline for publication of key papers – any missing, help needed?
- To do's before next meeting
- Next meeting details

17:30 Workshop Close

18:00 Birthday celebration for Dr Crooks.

