

# Abstract

## SESSION 2:

Accelerating Actions for Sustainable Development and Climate Change

## WORKSHOP 3:

Valuation of Coastal Ecosystem Services and Benefits and Coastal Use Zoning: Tools for Better Planning and Implementation

## Integrating Coral Reef Ecosystem Services into Marine Spatial Planning

**Peter Mumby**

Chief Scientist

World Bank/GEF/University of Queensland Capturing Coral Reef Ecosystem Services Project

Incorporating the values of coral reef ecosystem services into marine spatial planning offers a number of benefits, chief amongst them is greater transparency over the consequences of decisions for all stakeholders. Other benefits include facilitating the accounting of natural capital and valuation of ecosystem services for local stakeholders. There are, however, significant challenges in quantifying ecosystem functions and services and a great difference between estimating 'relative value' versus 'absolute value'. Here, I begin by discussing some of the natural sciences challenges for modelling reef ecosystem services and highlight compelling directions. I then discuss some of the additional challenges and opportunities to operationalise ecosystem service value within a planning context.



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**Global Targets**  
**Local Benefits**

Setting the Sustainable Development Agenda for the Seas of East Asia beyond 2015

## **About Peter Mumby:**

Peter Mumby is a Professor of coral reef ecosystems at the University of Queensland. Peter started his career helping to plan marine protected areas in Belize, Central America. On discovering the paucity of science available to guide decisions, he embarked on a research career to help managers incorporate ecosystem health and functioning into their work. Peter obtained his PhD in coral reef remote sensing in 1998 from the University of Sheffield (UK) and was then awarded NERC and Royal Society fellowships to develop his research to include field ecology, ecosystem modelling, ecosystem-based fisheries, operationalising resilience for conservation planning, and reserve design. Peter became a Professor at the University of Exeter but emigrated to Australia in 2010 to escape the cold. He has been awarded a Pew Fellowship in Marine Conservation and the inaugural award for contributions to coral reef science by a mid-career scientist by the International Society for Reef Studies. One of his roles is Chief Scientist of the World Bank/GEF/UQ Capturing Coral Reef Ecosystem Services project, based in Indonesia and the Philippines. His research pages can be found at [www.marinespatialecologylab.org](http://www.marinespatialecologylab.org)