Marine Protected Areas in an ecosystem-based management context - the Wider Caribbean experience

UNEP’s Caribbean Environment Programme

Secretariat to the Cartagena Convention and its Protocols on biodiversity (SPAW), land-based pollution (LBS) and oil spills response

11th Global Meeting of the Regional Seas Conventions and Action Plans
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www.cep.unep.org
The Wider Caribbean: a biogeographic opportunity for EBM and LME governance

- 2.6 million Km²

- 38 countries & territories: different political and legal systems, languages (16 SIDS, 19 territories, 13 land States)

- One Marine Biogeographic Province with several ecoregions

- Coastal tourism: a major force, lessons to be learned

- Land-based pollution and over-fishing: major issues
The Wider Caribbean Region (WCR)

- Almost no international waters
Oceanic circulation shaped by gyres and meanders largely due to coastal morphology and bottom relief.
The Cartagena Convention and its Protocols - an integrated approach -

- Cartagena Convention
  Adopted 1983
  Entered into Force 1986

- Oil Spills Protocol
  Adopted 1983
  Entered into Force 1986

- Specially Protected Areas and Wildlife Protocol
  Adopted 1990
  Entered into Force 2000

- Land-based Sources of Marine Pollution Protocol
  Adopted 1999

Emergency response for oil spills (with IMO)

SPAW Biodiversity subprogramme

Assessment and management of marine pollution (AMEP)
Biological connectivity of marine populations

- Restricted
- The need for transboundary and ecoregional management of marine resources

Snapper larval dispersal (Paris et al. (2005))

Mutually exclusive distribution of 9 nominal spp of gobies (Collin, 2004)
Restricted marine populations connectivity (fish larvae, gobies distribution and coral genetics)

Bustamante and Paris, 2008
Marine Protected Areas (MPAs)

• WCR coral reefs (~26000 km²)

• Over 300 MPAs

• 1/3 are highly threatened by overfishing, pollution, habitat alteration

• 80% outside MPAs

• Only 6% of MPAs considered effective

(Baums, 2006, at the GCFI Annual Meeting)

Burke and Maidens, 2004
MPA systems

National (or subnational)
- Cuba
- Dutch Antilles
- Cayman Is.
- St. Lucia
- The Bahamas
- Florida US
- Mexico (Yucatan, Quintana Roo)
- Colombia Caribbean
- British Virgin Is.
- US Virgin Is.

Transboundary
- None

Ecoregional/biological connectivity
- None
MPAs system Seaflower BR, San Andres Archipelago, Colombia Caribe (gobierno local, GEF, UNEP)

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<th>Zonas conservación</th>
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<td>52.20</td>
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Total Area 65.018 km²
National System of AMPs in Belize (government and local groups, international ONGs)
No-take MPAs in the Wider Caribbean

Caribbean No-Take Zones (Appeldoorn, 2001)
Some Marine Reserves Successes/MPAs (Soufriere, Hol Chan, Sian Ka’an)

- 5 years later, 2-4 times increase in species abundance
- Increase number of mature reproductive individuals
- Fish “spill overs” outside the reserve
“The Spillover effect”
CaMPAM: A network of MPA practitioners to increase management effectiveness

- Assist MPAs to implement best management practices through training, communication, information sharing, and exchanges

- Promote transboundary coordination of ecologically-connected sites (national, and subregional networks)

- Assist countries to meet the Caribbean Challenge of protecting 20% of the marine and coastal habitats by 2020.
CaMPAM: A people’s network towards an ecoregional MPA network

- Training the Trainers
  - 7 courses, Spanish & English
  - regional and local follow-up courses
  - > 1,200 individuals trained
  - manual (8 modules, weeks)

- Small Grants Program (exchange visits, technical assistance) http://www.gcfi.org/SGF/SGFEng.php

- List serve campam@yahoogroups.com

- Regional MPA Database
  http://cep.unep.org/caribbeanmpa

- Annual meetings (in association with partners)
Emerging initiatives

- Moving to MPA networks (changing scale and approach)
- The “Caribbean Challenge” (MPA national systems to conserve 20% marine environment by 2020)
- Caribbean Large Marine Ecosystem Project (GEF, UNDP, IOC and UNEP)
The way ahead…….

Towards more effective, more resilient, more representative MPAs and MPAs systems, a wider application of EBM and principles of good governance within the context of the Cartagena Convention and the Caribbean LME
Challenges

- Create MPA networks, following ecoregional divisions to enhance coordination
- Engage business sector (e.g. tourism)
- Wider application of EBM, outside MPAs
- Financial and human resources
- Political will
THANK YOU!