

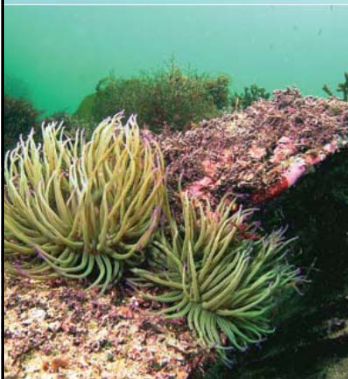
8<sup>th</sup> International Conference 2010

DROITS DE PROPRIETE, ECONOMIE ET  
ENVIRONNEMENT/ Property Rights,  
Economics and Environment:  
BIODIVERSITE / Biodiversity

The Marine Cadastre: A Rights  
Based approach to Marine  
Conservation in England

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## Purpose



- Explore and understand what a Property rights based management approach to managing coastal zones

Seeking to open debate:

- Can Property rights be used to conserve near shore marine habitats, either as an alternative OR to compliment Command Control mechanisms?

*" Managing Land and Sea is all about the challenges of access to space "*

## Overview...

- Case Study
- Coastal Zones
- Rights, Restrictions and Responsibilities
- The Marine Cadastre
- Marine Protected Areas
- Debate

## UNESCO World Heritage Site Dorset and East Devon Coast



## Case Study: Purbeck Voluntary Marine Nature Reserve



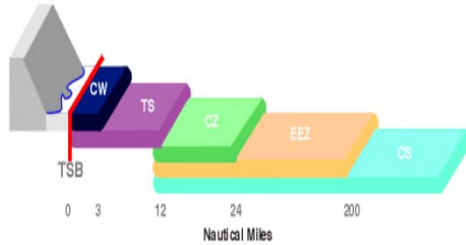
- **What**- Purbeck Voluntary Marine Nature Reserve (PVMNR)
- **Where** – within an UNESCO World Heritage Site; Jurassic Coast Dorset
- **Why**: part of a story of 185 million years of Earth History in rocks, fossils and coastal land forms, AND
- Accessible Marine wildlife
- **How**- Private Landowner collaborating with Dorset Wildlife Trust to conserve marine habitat; although nature reserve is are purely voluntary it is a candidate SAC



**Coastal Zones: Its all about Access and Boundaries!**

## Boundaries and the Coastal Zone

### Maritime Zones



TSB	Territorial Sea Baseline	CZ	Contiguous Zone
CW	Coastal Waters	EEZ	Exclusive Economic Zone
TS	Territorial Sea	CS	Continental Shelf



England Coastal Zone:

**Inter- tidal/ foreshore:**  
lies between high- water mark and low water mark

**High water:**  
line of the medium high tide, between the springs and neaps ascertained by taking the average of these medium tides during the year

**Low water:** similar, but relates to the medium low tide

Figure 1: Australian Maritime Zones (AUSLIG, 1999)

*Virtually all activities within the coastal zone are spatially governed*

## Rights, Restrictions & Responsibilities





## Traditional Property Rights in PURBECK VMNR



- **Above HWM- subject to bundle of land rights:**
  - Private Landowners (Estate and MOD)
  - Coastal Path Public rights to “pass and re- pass”
- **Below LWM- subject to common law:**
  - Water column: 3 dimensional so recreationalist and fishermen!
  - Occupation- licences, respectful of Public rights
  - Conservation – Voluntary Marine Nature reserves
  - Navigation
- **Foreshore – subject to public rights...**

## Foreshore: Private Landowner!



- **Ownership**
  - Crown Estates- + 50%
  - Private- conditioned by: Coast protection, and
  - Defence of the realm (byelaws)
- **Subject to Public rights**
  - Fishery
  - Navigation

## Property Rights - Alienation

An important concept:

- On Land... subdivisions and allocation of land enables multiple uses
- On Sea....hunting and gathering, but
- Changing scenarios.....

*Mari culture, seabed mining, reclamation, tourism, trawl or dredge fishing, pollution – all will modify the water column*

## The Marine Cadastre



## Marine Cadastre Concept

### Defined as

*" a marine information system, encompassing both the nature and spatial extent of the interests and property rights, with respect to ownership and various rights and responsibilities in the marine jurisdiction" Nichols et al (2000)*

### Key words:

- Spatially managed
- Governance- Legally and administratively
- Physically defined in relationship to boundaries, and
- Records rights and responsibilities

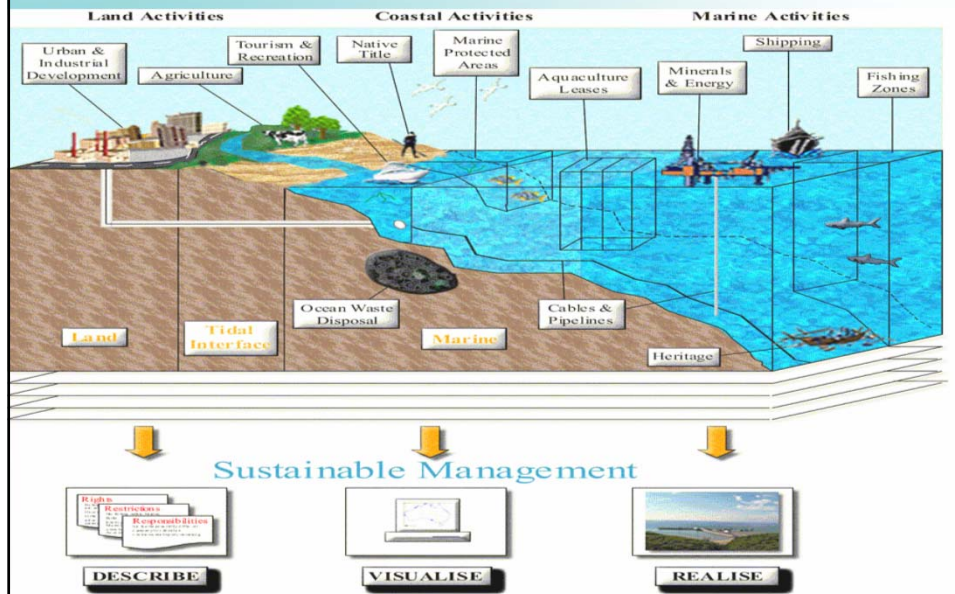
2 components...

## Marine Resources Administration



- **Marine register.**
  - Naming and identification but
  - flexible to capture non geographic (e.g, licensed fishing vessel).
  - Multiplicity of purpose
- **Marine Spatial data Infrastructure (SDI).**
  - Enable users to easily access and retrieve data

## The Australian Marine Cadastre Concept (Binns, 2003)



## Beneficial outcomes

The Marine cadastre enables users and stakeholders to:

**Describe** location and spatial extent of a particular right or interest – ie an aquaculture lease or shipping channel, then

- **Visualise** through continually updating accurate digital spatial data, their dimensional boundaries and associated information, and finally these two abilities enable
- **Realise** or locate this information in the real world. (Todd 2001)



## Marine Protected Areas: Existing and emerging command control mechanisms



## The Marine and Coastal Access Bill



The MCA is:

- UK government's “key strategy to make the best use of our marine resources and to ensure its sustainability for generations to come”

•Drivers:

- Climate Change &
- Marine Conservation

## Key Areas in the Bill



The Bill comprises eleven parts, broadly:

- Creates Marine Management Organisation.
- Sets out UK marine Area
- Introduces **Marine Spatial Planning**.
- Establishes Marine licensing system.
- **Introduces Marine nature conservation mechanism.**
- Framework for Migratory and fresh water fisheries management
- Modernises enforcement.
- Proposes Coastal access
- Miscellaneous and supplementary provisions
- Environmental data and information.

*Policy driven by International Conventions /Commissions and European strategy Directives measures*

## Marine Protected Areas in the UK



Regulatory control achieved by existing International and National designations:

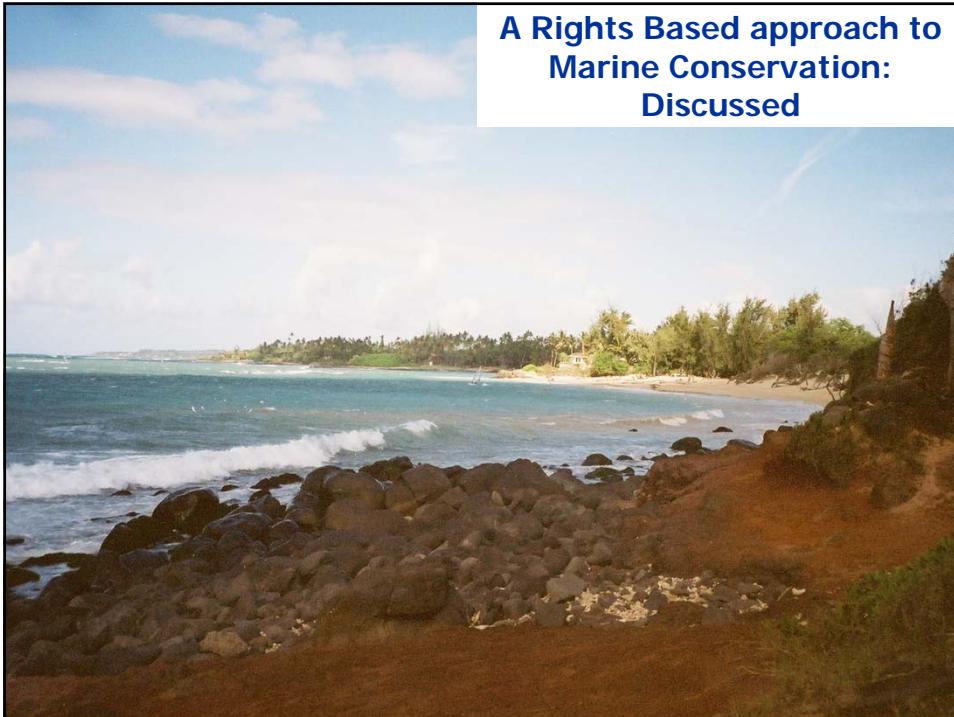
- 3 statutory Marine Nature Reserves (MNRs)
- 81 Special Areas of Conservation (SACs) for marine habitats or species
- 73 Special Protections Areas (SPAs) marine habitats for birds
- There are also a number of *voluntary* and non-statutory MPAs:  
*e.g. Purbeck MNR in Dorset*

## Marine Conservation Zones (MCZ)



- **What-** Type of a MPA, that will conserve rare and threatened species and habitats
- **Where-** Large and close together to support functioning communities of Marian wildlife
- **When-** MPA Network by 2012
- **How-** Incorporated into the strategic management planning system defined by the MCA

## A Rights Based approach to Marine Conservation: Discussed



## Why Should ?

### *1. Management be mindful of a rights based approach ?*

- Common Law rights
- Many and varied institutions and user groups
- Changing value
- Property rights

### *2. (and can) property rights based approach be used as a management impetus to conserve species and habits?*

- Conflicting users and excessive use
- Importance of formalising the management of the coast grew in 1970's, I.e. Ocean and Coastal management (ICAM/ ICZM)
- ALSO Land Economic aspects considered some 10 years ago
- Marine and Spatial Planning

*Technological and Spatial data age*

## Case Study: A Rights based approach



Its all about

- Space
- Boundaries
- Commons
- Above all, about stakeholder Visualisation

This case study

- is an example of competition for access from different users. So
- can apply each approach
- What if....

## What if exclusively...

- **A command control system such as MCZ prevailed?**
  - Will protect species and Habitat by boundaries
  - Access and commons may be compromised?  
Selected on best available scientific evidence taking into account socio and economic needs
- **A system of property rights and alienation was in place?**
  - Politically mature, easy to define
  - Historical have protected by virtue of access control
  - Technological advance in materials has increased ability of users to access
- Neither provides a 'Rights' based approach...

## Describe, Visualise and Realise!



### But what if a Marine Cadastre system is adopted?

It accounts for:

- The lack of tenure or ownership
  - The inability to physically delineate boundaries
  - The existence of three dimensional and sometimes four dimensional marine parcels
  - The existence of overlapping rather than exclusive rights, restrictions and responsibilities
  - The temporal nature of marine boundaries
- 
- It provides a means for delineating managing and administering legally definable marine boundaries.
  - But it still requires some ongoing refinements and development (Identifying LWM and linking Terrestrial and Marine Cadastre).



## Suggestion: A Rights Based

Such an approach needs to work together to:

- Progress with emerging regulatory framework importantly involves stakeholder consultation (**MCA**)
- Continue to partnership work between landowners and statutory/ voluntary countryside teams (**DWT**)
- Provide foundation from which management issues, including the forces on sustainable development within the marine environment can be addressed (**Marine Cadastre**)
- Rights based revolves around **Access** to:  
Data, People, the Commons, and..SPACE

## Rights, Restrictions & Responsibilities

Achieving a resilient and equitable approach in the coastal zone can be addressed by including a Marine Cadastre in the management approach and tool box

- **Rights**- Acknowledge Property/ Commons
- **Responsibilities**- to ensure a sustainable and resilient approach to marine biodiversity

And,

- **Restrictions**- these are inevitable to achieve the above



**Thank You**

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