MPAs Fisheries and Conservation

Ecosystem Based Management, MPAs and Fisheries: and the bigger picture

Richard Kenchington

Professor, Ecosystem and Resource management

Why are we here?

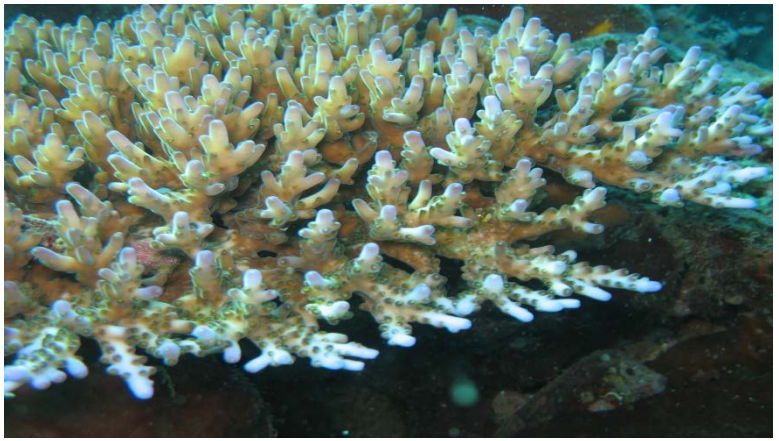
2011

We are not on top of the problems

Core of the GBRMP Act 1975

The Conservation of the Great Barrier Reef

Zoning and Regulation of use to protect the Reef while allowing reasonable use



Lessons from experience

With some exceptions for short-lived, fast breeding species - fisheries management without criteria for demonstrable sustainability and robust performance reporting does not work for long

Marine Parks without criteria for biodiversity conservation and the human element don’t work

Failure to manage coastal waters generally impacts fisheries and the lives of poor people

Lessons from experience

Resourcing and persistence – decisions made must be broadly accepted, publicised and enforced for a long time

Otherwise those who want, accept and abide by constraints are discouraged when outlaws profit.

40 years of
25 year strategic visions

A healthy environment:

Sustainable multiple use

Subsistence, jobs, security
culture, recreation

Maintain and enhance values

What do we have in common?

Depend on biodiversity and ecosystem processes

Short history too little achievement

New roles, concerned client groups

Low status in most government systems

Short History

1957- 1992 UN Law of the Sea Process, EEZs and coming into effect of LOSC

1972 UN Conference on the Human Environment Stockholm

1975 IUCN Marine Biodiversity Marine Parks Conference Tokyo

1987 World Conservation Strategy

1992 Rio – Agenda 21

1970's

Fisheries
– the limits to the promise of 1960s vision just becoming apparent

Environment
– awakening urgency of the need to address the marine impacts of human activities

New Roles: Fisheries

Transition from new frontier developmental – finding new stocks and improving technologies

- to mature maintenance and allocation of limited resource

Managing increasing expectations in the face of limited resource

Competing uses of marine space and the needs to address emerging environmental issues

New player: Environment

New policy issues

Maintaining biological diversity
- Genetic, species, community

Maintaining habitats and ecosystem services
- Human uses and impacts

Achieving understanding that human and environmental health and well-being are inseparable

1987

World Conservation Strategy called for sustainable development through integration of environmental, social and economic management strategies.

“development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

1988 GRSMPA concept

Management in accordance with the principles of the World Conservation Strategy of human activities that use or affect the marine environment

IUCN Resolution 1988

1988 GRSMPA concept

protection, restoration, wise use, understanding and enjoyment of the marine heritage of the world in perpetuity through the creation of a global, representative system of marine protected areas

IUCN Resolution 1988

Unintended consequence

MPAs emerged as a threat

Lack of clarity over the roles of categories of MPAs led to confusion in addressing elements of the WCS or IUCN resolution

Most activities could be addressed within IUCN PA categories but this created confusion and threatened participants and managers of other activities.

The Problem Now

Current management regimes are not sustaining marine biological diversity or marine natural resources (Jackson, 2008)

Global fishery catch peaked in the 1990s – regional peaks occurred between the mid 1980s and mid 2000s

Human impacts on marine ecosystems are widespread Halpern et al (2008).

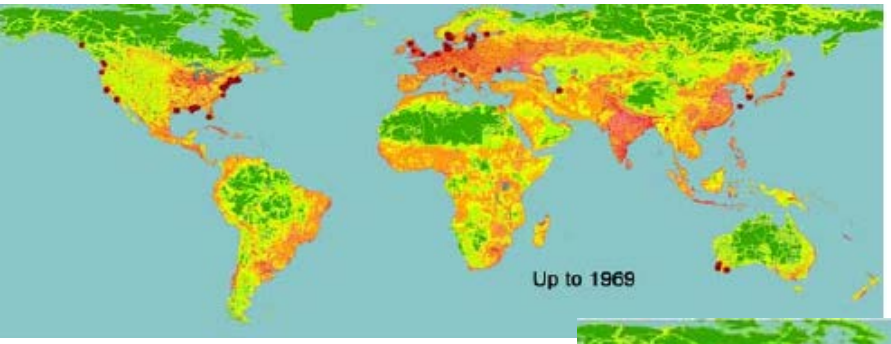
.

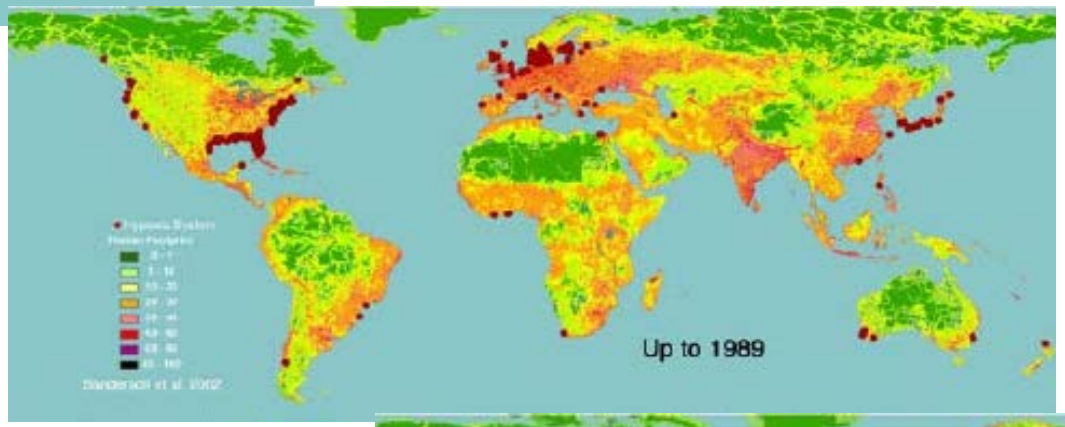
Hypoxia - Dead Zones

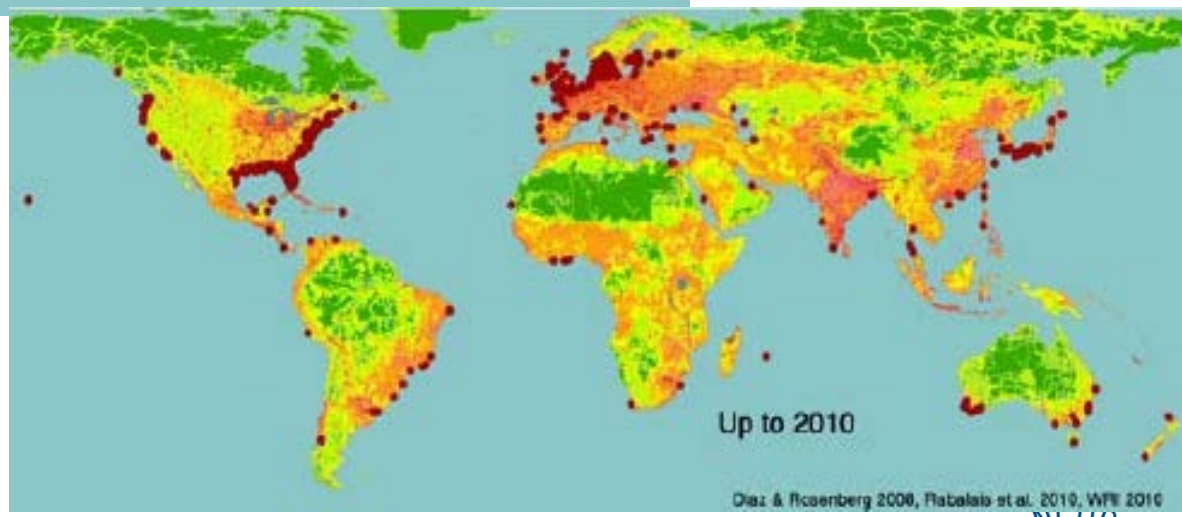
Growing – associated with eutrophication and human population centres

1960s	60
1970s	120
1980s	275
2010	>500 but limited data from Asia and India

Much more then MPAs and fishing







The Problem

Pollution and destruction of coastal and marine habitats because of land and freshwater management are increasing

For most people coasts, seas and seafoods are important but the financial and behavioural costs of addressing impacts on marine ecosystems are difficult low priority issues

Low status

There are a few notable exceptions but generally Ministers for Fisheries or Environment have limited influence in national economic policy.

Turfs wars keep marine matters non-core and so low on the agenda

Why are we here?

2036

How can you do better?

Ecosystem Based Management

Protecting biodiversity;

Conservation and integrity of ocean ecosystems;

Verifiably sustainable levels of human use and impacts on biodiversity;

Management of harvesting of natural resources

Management of pollution, habitat destruction etc

Acceptable socio-economic progress.

Managing conflict,

Enhancing well-being

Improving the quality of life;

4 elements of Marine EBM

Overarching Multi-use Management:

addressing overlapping responsibilities including:

Sustainable Use Marine Management:

verifiably sustainable use and impact

Marine Protected Area Management:

biodiversity, habitat, ecosystem service and reference

Culture/Ecological/Social Protection Reserves:

sustaining Indigenous and traditional non-Indigenous use

World Bank 2006

Its all about real people

We cannot manage fish, biodiversity or environments.

We may be able to manage what people do to fish, biodiversity or environments

People have multiple conflicting objectives

Its all about real people

Communities/people they respect as leaders must be involved in making decisions

Most people manage conflicting objectives most days

Most people don't care which agency or agencies manage – they just want the job done

Reconciliation

Effective reconciliation needs

- Understanding common objectives
- Understanding mutually incompatible objectives
- Understanding common threats
- Clear definition of roles and responsibilities
- Understanding the consequences of failure to reconcile

Conflict of interest

A sectoral agency/decision maker that determines the multiple regime has problems:

Its clients will attack it for not getting a better deal

Its opponents will attack it for not giving them s fair deal work

Elements of EBM

Authority, accountability, precedence

Performance indicators and independent monitoring

Commitment to implementation

Long term vision and goals

Elements of EBM

National objectives/local plan

Principles for decision making

Policy – horizontal integration within
– vertical integration between sectors and jurisdictions

Monitoring, outlook, adaptation

MPAs and Fisheries

Relationship generally unclear and often conflicted

Conservation advocates are reluctant to accept fisheries measures contribute to biodiversity conservation

Fisheries advocates reluctant to accept that MPAs contribute to fishery management

Both seem happy to accept oppositional role.

Others confused and don't need to engage

MPAs

Conservation focus on MPAs

- meaning confused
- targets 10 or 20% or more?
- what about the 90 or 80% unconserved?
- what about cross-boundary factors?
- what are the objectives?
- who benefits, loses, needs to be involved?
- How can effects be monitored, evaluated, reported and management be adapted?
- What is the basis of the targets???

Fisheries

Focus on maintaining and developing fisheries
Meaning confused

- Industrial? Artisanal? Subsistence?Recreational?
- Effort definition and technological creep
- How to approach increased demands ?
- What about cross-boundary factors?
- What are the objectives?
- Who benefits, loses, needs to be involved?
- How can effects be more accountably monitored, evaluated, reported and management be adapted?
- Goals developed without science?????

A question for 2036 managers

How do you plan to do better than we have in the last 40 years?

Business as usual so far will not work

Environment and fisheries have important separate roles as well as important alliances

Thank You