Thoughts from CFRN

OCP - May 25, 2016

Rob Stephenson

Réseau canadien de recherche sur la pêche

Canadian Fisheries Research Network

RESHAPING FISHERIES RESEARCH IN CANADA

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Training the **next generation of fisheries researchers** and **managers**

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www.cfrn-rcrp.ca

NSERC CRSNG

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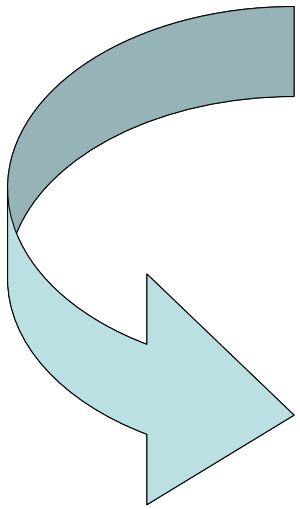


Industry +
Academia +
Government

Collaborations in research on critical questions of management

Co-construction

Memorial
University of Newfoundland

UNB

uOttawa

SFU

UQAR
Université du Québec
à Rimouski

SIMON FRASER UNIVERSITY
THINKING OF THE WORLD

UBC

UNIVERSITÉ LAVAL

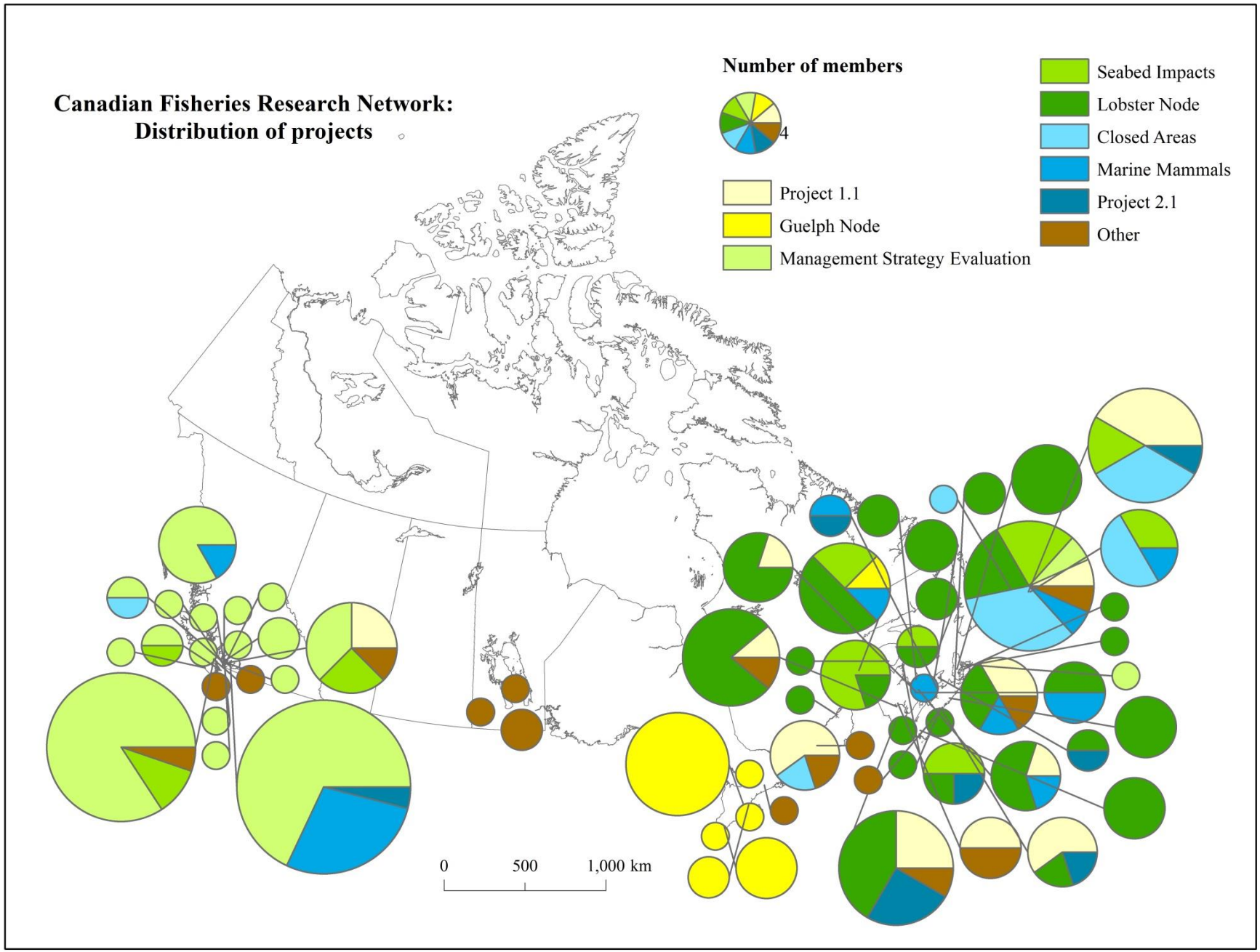
UNIVERSITÉ DE MONCTON

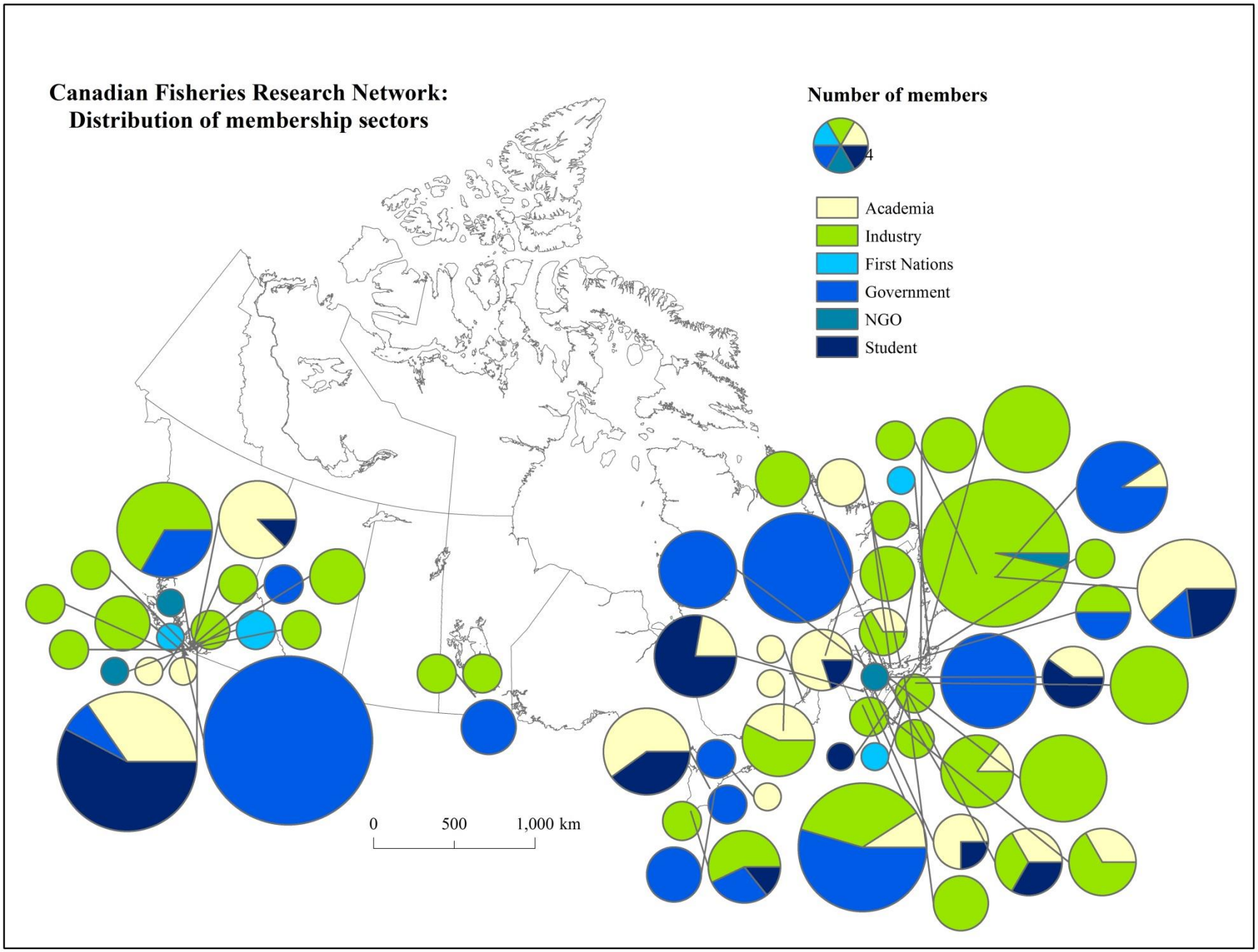
SAINT MARY'S UNIVERSITY SINCE 1802
One University. One World. Yours.

DALHOUSIE UNIVERSITY
Inspiring Minds

UPEI
UNIVERSITY
of Prince Edward
ISLAND

Université Sainte Anne


Canadian Fisheries Research Network:
Distribution of projects
Number of members
4
Project 1.1
Guelph Node
Management Strategy Evaluation
Seabed Impacts
Lobster Node
Closed Areas
Marine Mammals
Project 2.1
Other
0
500
1,000 km


Canadian Fisheries Research Network:
Distribution of membership sectors
Number of members
4
Academia
Industry
First Nations
Government
NGO
Student
0
500
1,000 km

Research we couldn't do alone

…for example:

- Management Strategy Evaluation and adaptive management
- Methods for adding social, economic and institutional aspects
- Modifying gear to reduce impact
- Impact of fishery closures and marine mammals
- Increased industry information and sampling (e.g. lobster stock structure)

Partnership and Engagement

-Large and growing collaboration (200+ people)
-Facilitated close collaboration

Government agencies

NSERC, Federal and Provincial managers, scientists and policy makers

Industry

Commercial harvesters , processors and representatives

Academics

Social and Natural scientists, including students

CFRN Brand

- Deep collaboration
- Co-construction of projects
- Building on strength of industry, academia and government
- Addressing critical areas of need
- Pushing disciplinary and institutional envelopes

Silos

Of our:
-organisations
-backgrounds
-disciplines

Link Silos in effective Collaborations…partnerships…


…clusters…networks…

Bridges and Barriers

Working well as a Network

- *network-wide feeling of collegiality and common purpose*
- *changing the discourse… a more collaborative approach to issues*
- *greater understanding across perspectives and mutual appreciation of issues*
- *Unified our fisheries community around research*

What is unique and valuable?

…tight collaboration between members of the fishing industry and scientists from universities and government research labs.

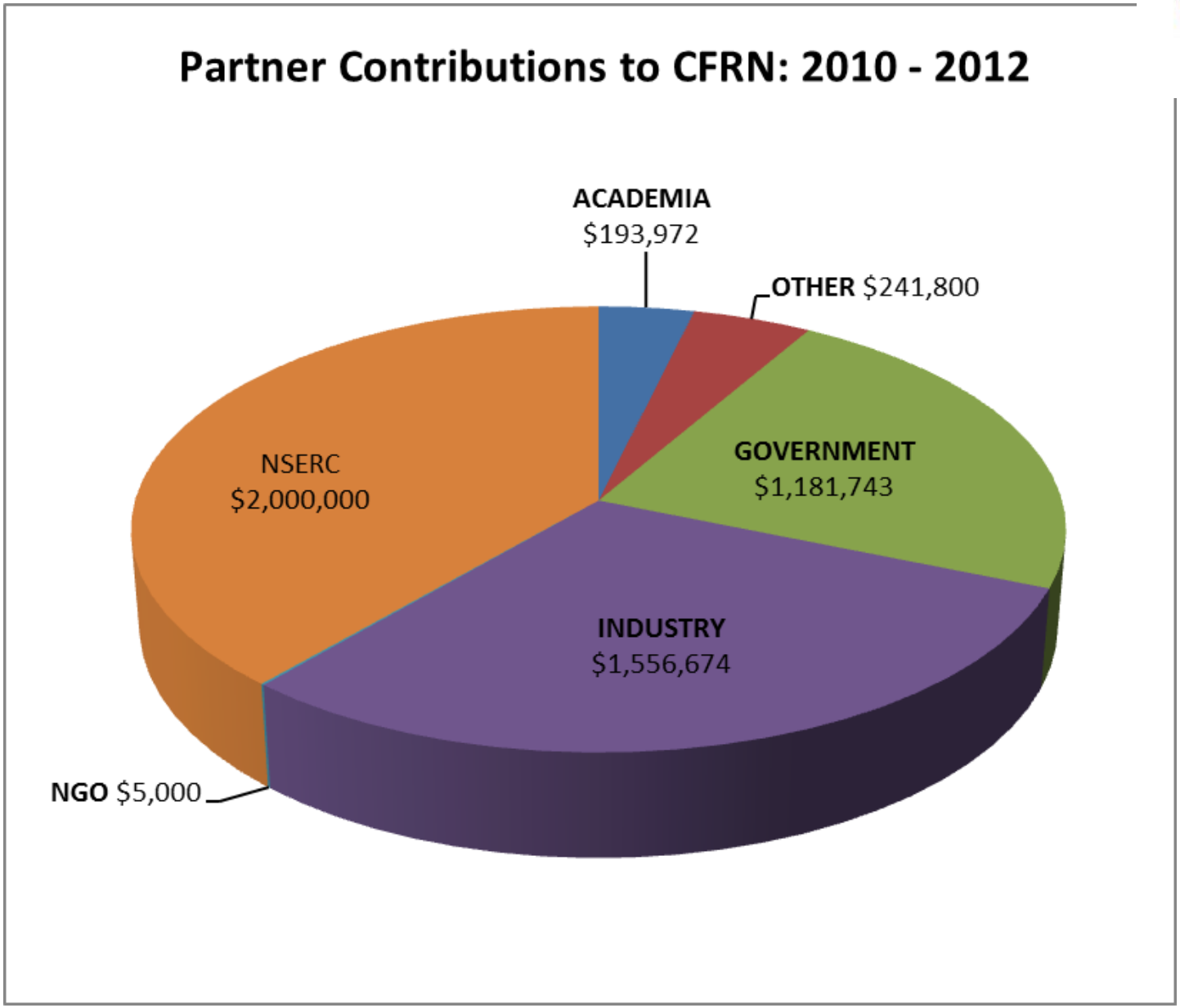
…each party is learning from the others about their perspectives and objectives.

…enabled research that would simply not have been possible otherwise,

What has it done for DFO?

- Research on key issues across Regions
- Cultured a group of applied academics
- Demonstrated feasibility of deep collaboration and interdisciplinarity
- Trained (‘cross-trained’) a unique cohort of graduates/PDFs
- Set the stage for future collaboration

Leverage is high…



Towards a framework for comprehensive fisheries evaluation

CFRN Project 1.1

Studied the requirements of emerging 'ecosystem-based' and 'integrated management' approaches…

- Interdisciplinary collaboration
- Used both national and international context

Four aspects of sustainability…

2011

DECEMBER

Report of the

Commissioner of the Environment and Sustainable Development

Chapter 4

A Study of Managing Fisheries for Sustainability

Candidate objectives for sustainable fishery?

Ecological objectives
- Productivity and trophic structure
- Biodiversity
- Habitat and ecosystem integrity

Economic objectives
- Economic viability and prosperity,
- Livelihoods,
- Distribution of access and benefits,
- Regional economic benefits to community

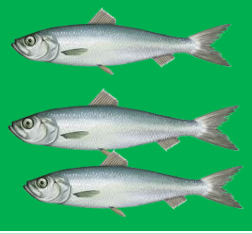
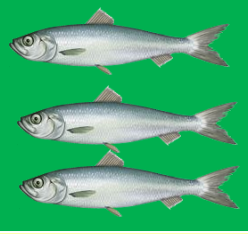
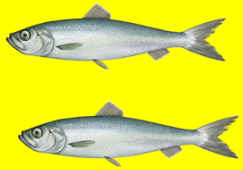
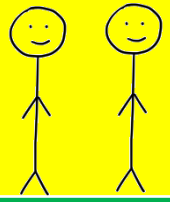
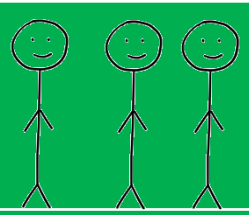
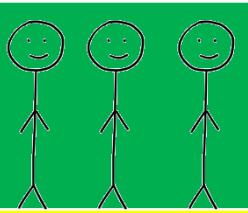
Social objectives
- Health and wellbeing,
- Sustainable communities,
- Ethical fisheries

Institutional objectives
- Legal obligations including to indigenous peoples,
- Good governance structure,
- Effective decision-making processes

Including performance indicators
Linked explicitly to policy statements

A framework for scenario comparison

Management options

Objectives	Scenario A	Scenario B	Scenario C
Ecological: productivity and trophic structure; biodiversity; habitat and ecosystem integrity			
Economic: economic viability and prosperity; sustainable livelihoods; distribution of access and benefits, regional economic benefits to community	$$$	$$	$
Social: Health and well-being; sustainable communities; ethical fisheries			
Institutional: legal obligations including to indigenous peoples; good governance structure; effective decision-making process			

Scenarios may be compared in several ways…relatively, qualitatively or quantitatively

A practical framework for implementation of EAM/IM

Ecoregion/planning area (umbrella plan)

Ecosystem Assessment

Nested plans for Managed activities

Common set of candidate objectives (to influence all plans)

	Fisheries	Aquaculture	Transport	Energy	Other
Ecological - - -					
Economic - -					
Social - -					
Institutional - -					

Cumulative performance

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Looking forward – Big issue

Research in support of

Management in a context of

Rapid change

- Ecosystem change
- Institutional/governance change