

APPENDIX D

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Outline

- **History and overview of our Ecosystem Approaches and Processes**
- **Status Report on Progress**
- **Future and links to Coastal/Marine Planning**
- **Lessons have we already learned**

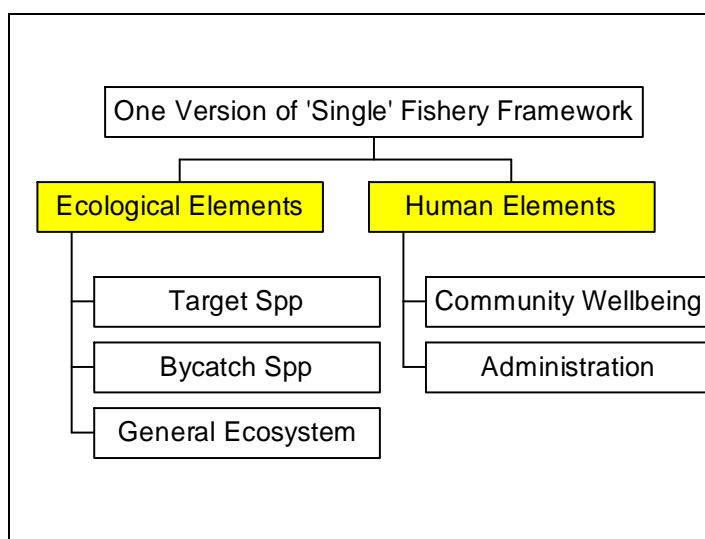
What 'EAF' definition did we use?

- **Based on principles of sustainable development**
- **Deals with ALL ecological impacts of fishing activities AS WELL AS their social & economic implications PLUS their governance AND interactions**
- **National Subprogram in Australia developed an overarching ESD/EAF framework and multiple specific tools.**
- **It is recognized as a MANAGEMENT process that is INFORMED by Science.**
- **It was also a requirement to meet federal environment legislation – GOOD incentive to do it**
- **In Pacific Tuna – meeting requirements of their Convention –worried about loss of markets**

Basic Concepts of Sustainability

- *What impacts are my activities having on the assets that I manage?*
- *What impacts am I having on the assets that someone else manages?*
- *What are the economic/social benefits and costs generated by my activities?*
- *What activities by others affect me and my assets?*

The ' my ' can be an individual, a company, a fishery, any industry, a Department, a Jurisdiction.



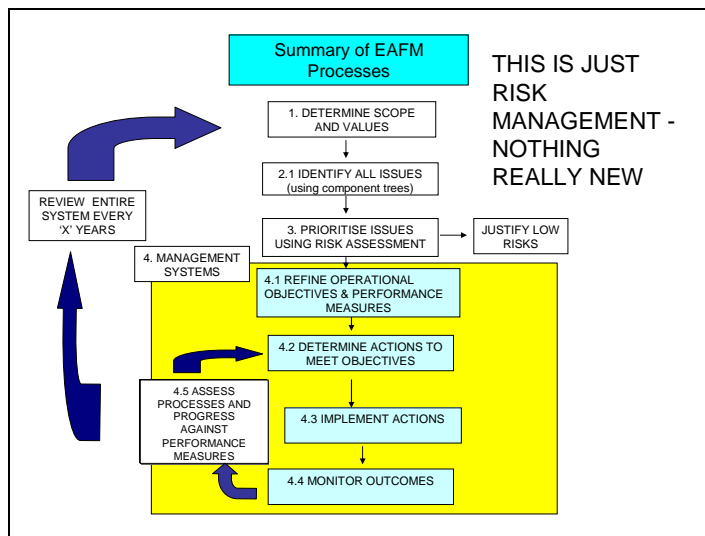
Systems Using The National Framework

- Over 50 commercial fisheries in Australia
- The Tuna management arrangements for 5 member countries of the WCPFC (FFA)
- Coastal fisheries in the Pacific (SPC)
- Aquaculture industries
- Managing agricultural impacts - Signposts
- Managing irrigation in Northern Australia
- Bioregional Assessments beginning

Basic EAF PROCESS

1. Scope and Values
2. Identify Issues
3. Prioritise Issues
4. Develop Management systems (and linkage models)
5. Generate operational plans

THE SAME STEPS IRRESPECTIVE OF THE SCOPE AND SITUATION BUT THE DETAILS VARY GREATLY



1. Determining Scope & Values

Develop a clear description of what you are trying to manage/assess including the societal values that need to be addressed

If you don't get this right, the process will fail

Understand that there are issues:

- Those that you control
- Those that you can influence
- The surrounding environment that you must react to

1. Tools Developed

- Developed lists of questions and prompts to assist clarify this
- Five common types of values (species sustainability, species viability, social outcomes, economic development, food security) plus preservation, politics
- Need to know if all are needed and their relative importance

1 Status

- Still a problem getting this done properly (often linked to problems with governance issues) –people often don't realise they are coming from different perspectives

2. Identifying Issues

Given the scope, identify all the issues that need to be assessed; preferably across the five key areas of EAFM (retained; non-retained; ecosystem, community; administration) and;
agree on objectives wanted to be achieved for each of these based on values

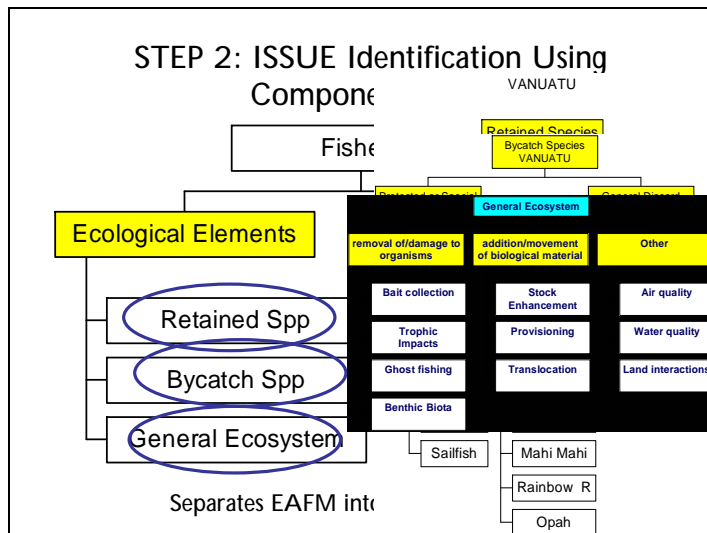
2. Tools Developed

- Series of generic component trees have been developed for a number of different situations for each of the EAF components
- These trees are then further refined to the specific situation from stakeholder input.
- There are also variations on this – check lists etc.

2 STATUS

These approaches are largely completed but can be refined or restructured made more automated

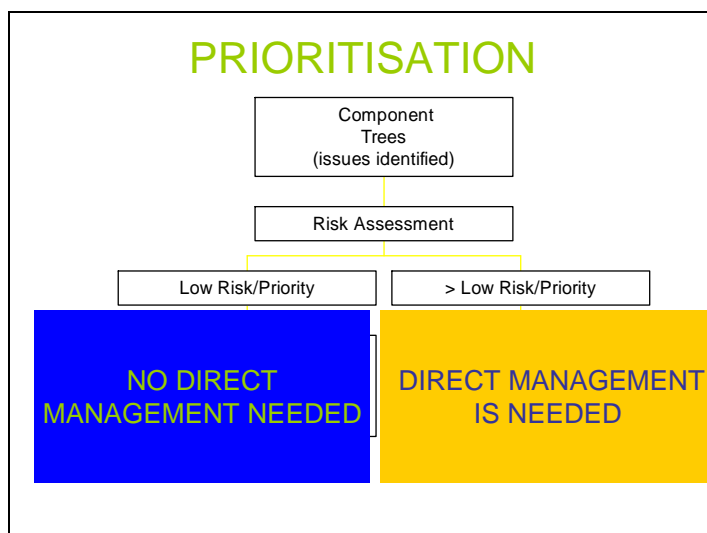
Getting good involvement from all groups



3 Prioritisation

Determine, using some form of risk assessment or prioritisation process which of these issues really needs to be managed directly.

- This may involve different outcomes for the different societal values, and issues of scale.
- Without doing this properly the process will stall – cannot directly manage everything!



Risk Outcomes

ALBACORE	Stock sustainability (whole of stock)	Low
	Economic	
	Social	Medium
	-Industrial	
	-Artisanal	High
YELLOW FIN	Stock sustainability - Whole of Stock	High
	- Vanuatu Impact	Low

Management will focus on the local density of Albacore remaining at levels to ensure economic and social outcomes

If only sustainability assessed NO management of Albacore would be needed

No management of Yellowfin is needed in Vanuatu despite its high priority at a regional level

3 Tools Developed

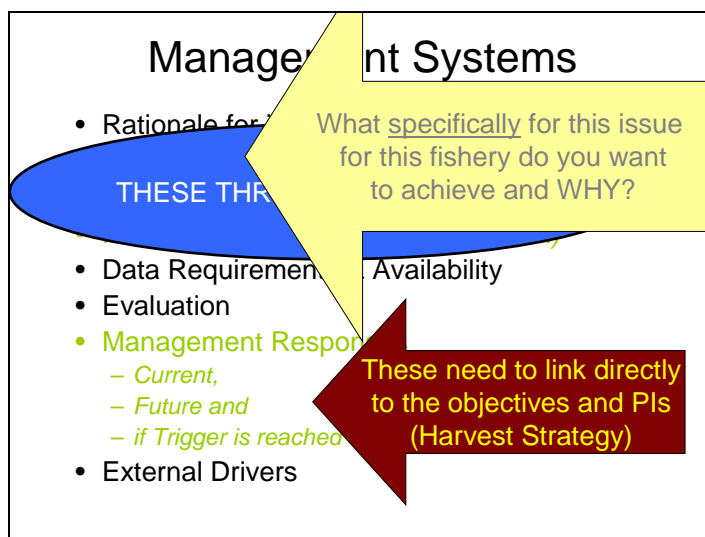
- A number of qualitative systems based on AS/NZ standard covering ecological, social and economic issues are now available in the various manuals.
- Alternative ERA techniques have also been generated or are being developed– qualitative, semi quantitative and multi criteria systems (plus quantitative where possible!)
- The most appropriate to use may not necessary be the most complicated one.

3 Status

- Risk Assessment is still difficult to convey to stakeholders in a way that they understand and accept
- Must ensure that you are clear which objective is being assessed as the risk level (priority) may change depending upon what objectives/values are used.
- You may also need to separate cumulative risk from that generated by a specific fishery/region.
- The criteria for assessing broader ecological impacts are not as clear as for single species (same issue comes later)
- Criteria to assess risk of social and economic issues are also less developed.

4 Management Systems

For the issues requiring direct management, establish the levels of performance that are acceptable, the management arrangements that will be used to achieve these levels, and the review processes needed to monitor performance and adjust arrangements where needed



Different Levels of Reports

1. *A very brief outline – component trees and a brief risk tables. (A week or two)*
2. *Include brief management reports on key issues (A month or two)*
3. *Comprehensive reports on risk and management (may take a year)*

4 Status - systems

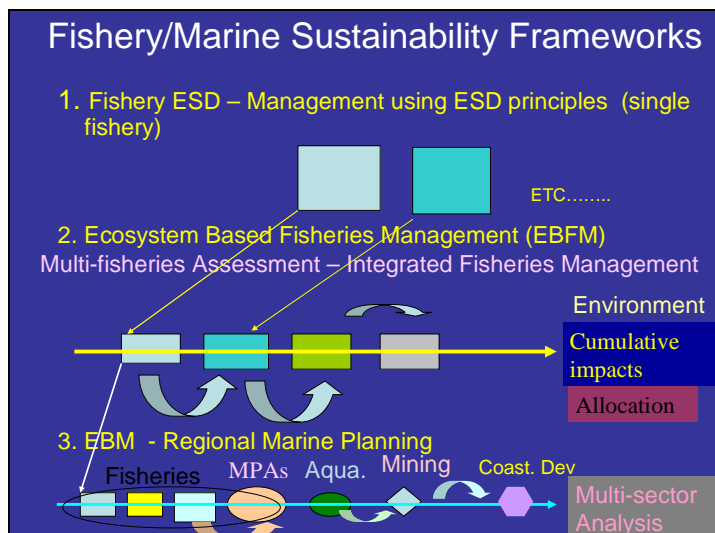
- The system outlined is totally consistent with all risk management and other feedback management systems
- Multiple levels of detail in reports from quick to complex
- Other versions are available just with different wording and subheadings

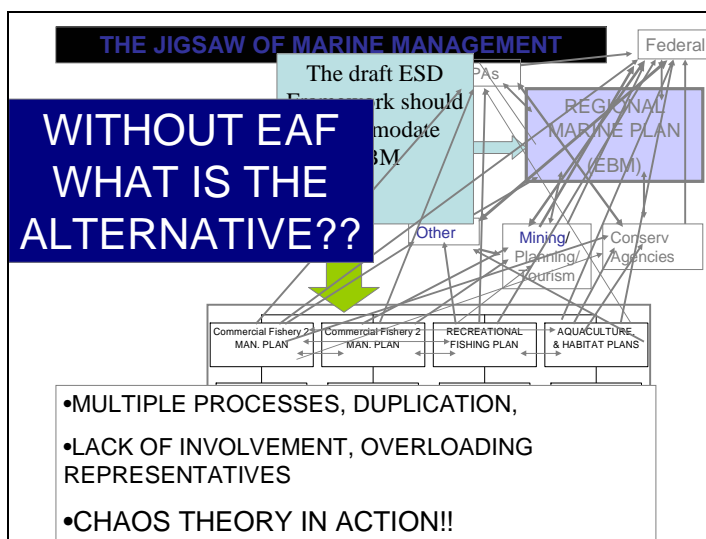
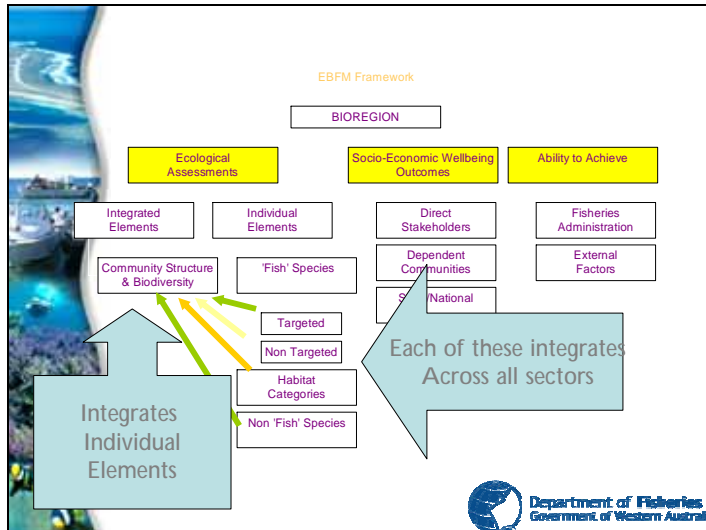
4 Status – Performance measures/Indicators

- Single species – many available
- Ecosystem – not many cost effective systems and lack of clarity of what is acceptable level of impact (gets caught with social value). May not be sensible for a single fishery.
- Social and Economic – lots available but hard to do most in a cost effective and in a timely manner

Where to Now ?

- **Just dealing individually with fisheries is no longer adequate**
- **Even just dealing with cross fisheries issues will also not be sufficient.**
- **Scope needs to link with regional marine planning initiatives.**





- MULTIPLE PROCESSES, DUPLICATION,
- LACK OF INVOLVEMENT, OVERLOADING REPRESENTATIVES
- CHAOS THEORY IN ACTION!!

Putting it All Together

How to link all the bits back together again?
 How does changing management of one issue all the other elements – particularly those across the different components of EAF?

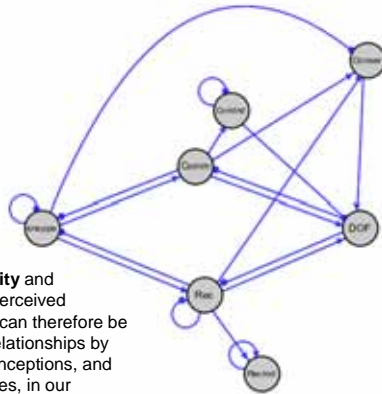
Status

Just really beginning, there are a few systems already being developed.

Management System Evaluations (MSEs)

- Quantitative (eg Atlantis)
- Qualitative (eg Dambacher)

Trialling Qualitative Modelling to explore linkages between ecological, economic and social elements



It looks for **stability** and **ambiguity** and perceived relationships, so can therefore be used to **clarify** relationships by identifying misconceptions, and hence weaknesses, in our understanding of systems.

Take out the conservation groups and the system becomes unstable – not sufficient feedback

Overall Lessons

- Dealing with actual 'ecosystem' issues have NOT been the main problem - despite them being hard to clarify
- You do not need an ecosystem model to undertake EAF
- The most common high risk issues are problems with Governance.
- No framework fixes governance issues by itself
- The social and economic issues must not be forgotten – ultimately these drive what outcomes can and are delivered – directly or indirectly.

Lessons Continued

- You can begin using this using whatever information is available – let the process guide in a structured, risk based manner, what information is needed.
- DON'T WAIT TO GET MORE INFORMATION BEFORE BEGINNING – YOU'LL NEVER START.
- This is an ongoing MANAGEMENT PROCESS not a once off report. Thus it has to make sense to the management agency.

ACTIVITY					
Steps in Process	Comms	Research	Manage Strategies	Policy	etc
Scope					
Values					
Issue Ident.					
Risk Asses					
Etc.					

PORTS AND ARE AVAILABLE
 SUBPROGRAM WEBSITE
www.fisheries-esd.com
www.ebfm.com.au
 See Circulated Brochure

A draft framework for integrated assessment and advice in small-scale fisheries

By
Garcia, S.M; Allison, E.H.; Andrew, N.J.; Béné, C.; Bianchi, G.; de Graaf, G.; Kalikoski, D.; Mahon, R.; Orensanz, J.M.

FAO Workshop on a toolbox for applying the ecosystem approach to fisheries
Rome, Italy 26-29 February 2008

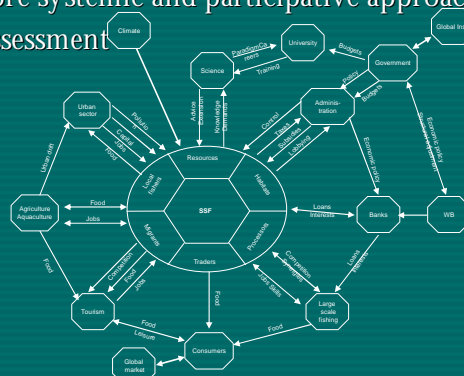
Outline

1. Rationale
2. Purpose of the framework
3. Characteristics of the framework
4. General principles
5. Sources of inspiration
6. Connections with existing frameworks
7. Planning and management cycles
8. The integrated assessment process
9. Cross cutting considerations

Rationale

- Correct the neglect SSFs
- LSFs approaches are inadequate
- Adopt a more systemic and participative approach
- Focus on assessment

The SSFs system



Purpose of the framework

- First step of a process
- A broad and agreed conceptual frame
- An architecture of principles and guidelines
- A hub for a community of knowledge and practice
- A communication network between stakeholders
- A warehouse of approaches and operational tools
- An information warehouse
- A library of case studies and best practices
- A focal place for monitoring the global state and evolution of SSFs.

General Principles

1. A shared vision among stakeholders
2. Multiple sources of knowledge
3. Social learning, adaptability and resilience;
4. Integrative processes at all stages
5. Scientific rigor
6. Multiple scales of enquiry
7. Assessment of complexity and resultant uncertainties
8. High degree of participation
9. Versatility of approaches
10. Contribution to transparency and accountability
11. Contribution to sustainability.