



Conservation Planning and Evaluation

Concurrent Session, June 7, 2010

Environmental Evaluators Network Forum

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Defining conservation planning

A structured and transparent process for identifying priorities, allocating investments and negotiating trade-offs in deciding where, when and how we act to protect biodiversity and other natural values.

Recovery planning

National Recovery Plan for the
Bald-tip Beard Orchid
Calochilus richiae

Mike Duncan



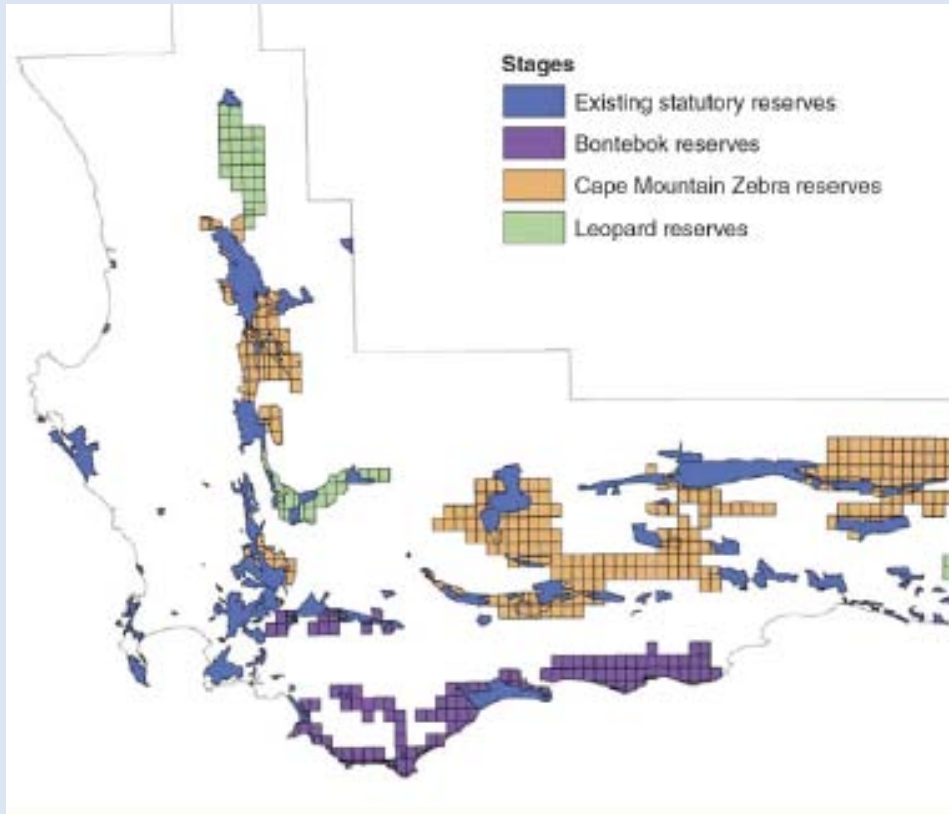
Australian Government



Department of
Sustainability
and Environment

- Current species information
- Trends in decline and threats
- Existing measures
- Recovery objectives
- Recovery actions
- Performance criteria
- Monitoring and adaptive management

Systematic conservation planning



- Understanding context for plan
- Setting goals
- Collecting biodiversity and socio-economic data
- Identifying quantitative targets
- Measuring contribution of existing areas
- Implementing new areas
- Monitoring and managing areas

Uses of conservation planning

Magnifying glass
Intellectual curio

Money spinner
Money pit

Smoking gun
Loaded gun

Facilitator
Alienator

Evaluation in conservation planning

- Lack of formal reporting or standards for evaluation
- Focus on short-term outputs
- Additional benefits and conflicts emerge during the process
- Need for short-term and intermediate indicators
representing multi-dimensional aspects, both the process
and its outcomes

Objectives of our session

- To highlight development and progress of evaluation in conservation planning at different scales and for different conservation activities;
- To identify priorities for the establishment and measurement of indicators among plans based on quality and appropriateness

Threatened species management: current trends in data management and information needs for evaluation

**Alejandro Ortega-Argueta
Instituto de Ecología, A. C.**

Veracruz, Mexico

Insights from the review of national-based threatened species programs (Mexico, Australia, The United States, Canada, New Zealand) and global efforts (IUCN-SSC):

- *Efforts has been made to assess threatened species programs around the world.*
- *“No monitoring, poor quality data, no assessment & learning”.
Adaptive management?*
- *Limited information has hindered such efforts.*
- *Recovery of some species may take decades; how to measure progress in the short and mid- term?*

Some program assessments are based on outputs as results

- *Number of listed species with recovery plans made*
- *Number of threat abatement plans*
- *Number of habitat protection plans*
- *Number of hectares under PAs*
- *Amount of monies spent on threatened species programs*

...so what about the actual species recovery?

Is population status the answer?

Recovery plans generally rely on biological measures as criteria for recovery. This approach is limited because:

- *Lack of population estimates & trends information, and thresholds for recovery;*
- *Regular population monitoring over the hundreds of the species is unfeasible given the limited institutional and resource capacity;*
- *Lack of databases in agencies; lists of threatened species may contain errors, and they are not systematically maintained and updated on regular basis;*

Is population status the answer?

- *There may not be a provision for governments to maintain monitoring and keep information up-to-dated;*
- *Perceived changes may take decades; useless for assessing intervention performance and effectiveness in the short- and medium-term (needed in adaptive management);*
- *It does not allow analytic comparison of results and outcomes across similar and parallel initiatives.*

How to provide short- and mid-term results?

Exist other aspects to consider in monitoring and evaluation of recovery programs that are often ignored:

- *Threat management*
- *Plan implementation*
- *Progress of recovery actions towards meeting recovery criteria*
- *Management decision-making*
- *Organizational and institutional*
- *Socioeconomic*

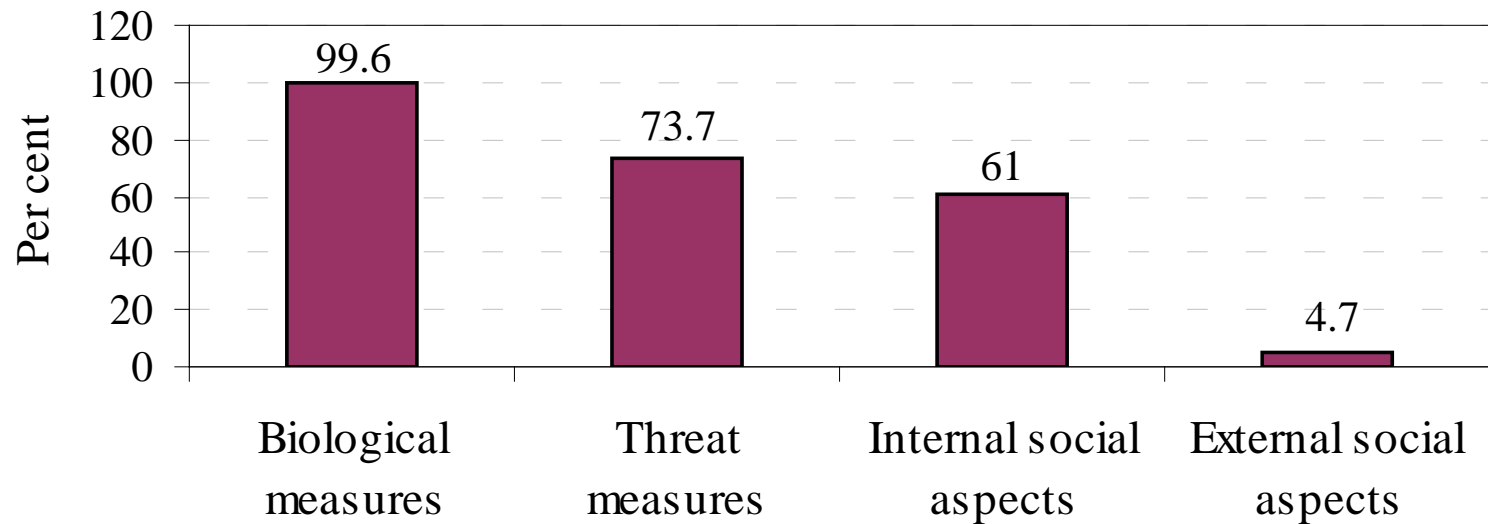
Themes and real-world examples of recovery actions

- a) **Research and monitoring:** *Popul. estimates and trends, distribution; habitat and threat assessments.*
- b) **Species manipulation:** *Cultivation, food supply, captive breeding, propagation.*
- c) **Habitat:** *Restoration, reservation, protecting habitat through econ. incentives.*
- d) **Threat:** *Regulation of hunting; pest management, incidental mortality.*
- e) **Community involvement:** *Conservation agreements; liaison with landholders.*
- f) **Education, awareness, and training:** *Community awareness, capacity building.*
- g) **Agency organization and management:** *Agency performance; lobbying, coordination.*
- h) **Policy:** *Trade regulation; sector policy (forestry, fisheries); enforcement.*

Examples of performance criteria and indicators for monitoring and assessing the progress and impacts of recovery plans

| Performance criteria | Indicators for monitoring |
|--|--|
| a) Biological and ecological | Population size estimates and trends; number of subpopulations; extent of geographical range. |
| b) Threat management | Abundance of invasive species, composition of agricultural runoff, impact of diseases, predation. |
| c) Social aspects internal to the agency and the recovery team | Meetings for planning and coordination; staff input (participation; minutes), extent of plan implementation (number of implemented tasks). |
| d) Social aspects external to the recovery plan | Degree of community awareness, public attitudes and values; compliance with regulations; volunteering; media information. |

What do we consider as indicators for assessing the progress and impacts of recovery plans?



N=236 recovery plans

The importance of adequate planning for M&E

Quality index based on the assessment of key elements of recovery plans

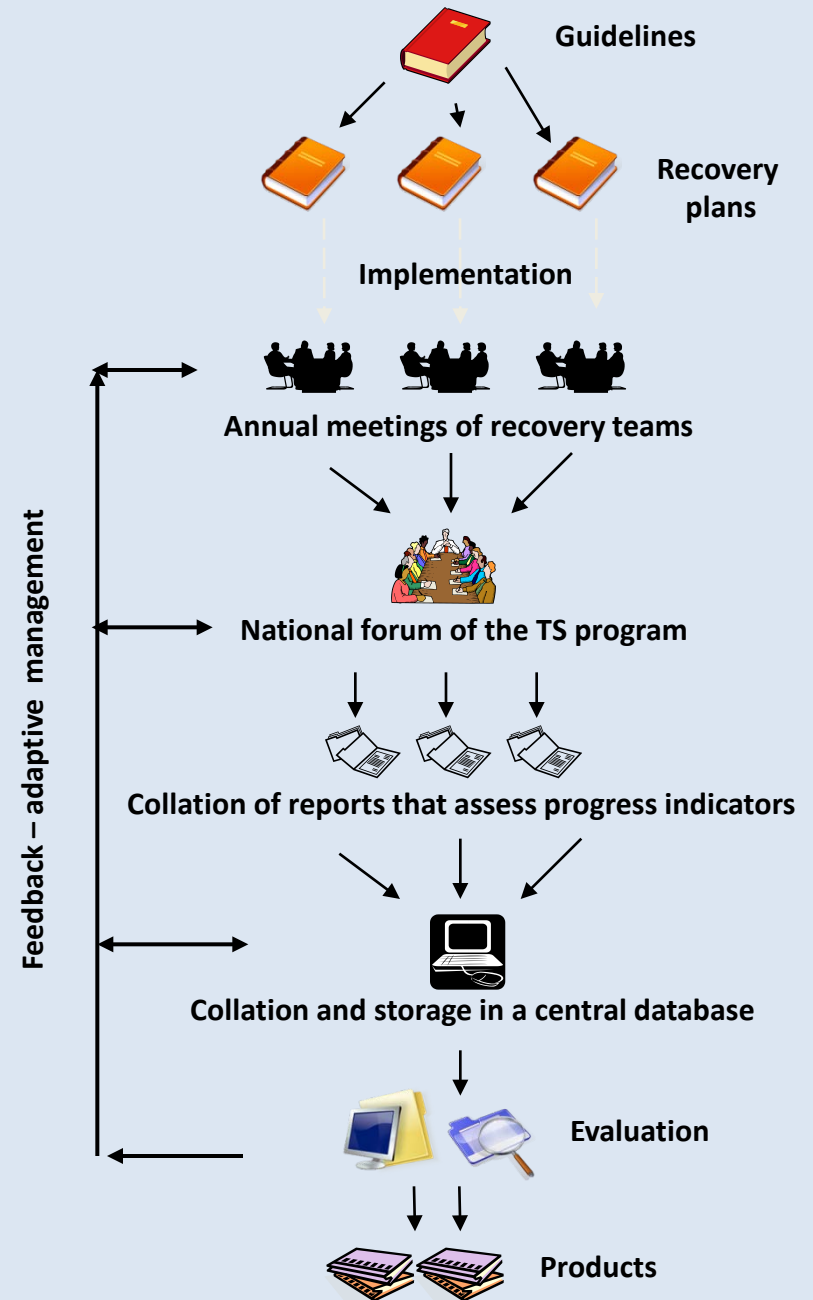
| Key elements of recovery plans | Score |
|--|-------|
| 1) Does the plan meet all legislative requirements? | |
| 3) Does the plan include clear and measurable objectives to be achieved within the defined timeframe? | |
| 5) Does the plan identify gaps of scientific knowledge and prescribe consistent research actions? | |
| 8) Are the identified threatening processes addressed by prescription of threat abatement actions? | |
| 9) Does the plan prescribe a list of priority recovery actions with identified responsibility for implementation to address the main issues mentioned in the plan? | |
| 13) Does the plan establish performance criteria consistent with the recovery objectives and monitoring activities? | |
| Total score | |

Maximum score 30 pts; Good plan: 21-30 pts; moderate plan: 11-21 pts; poor plan: 0-10 pts.

A framework for monitoring and evaluating threatened species programs

- Establishing useful short-, mid-, & long-term indicators
- Meeting the information quality and needs for the various users:

Accountability, program managers, agency directors, donors, scientists, other stakeholders involved in recovery efforts: target communities, NGOs, volunteers, private landholders, public.



Resources

- **Ortega-Argueta, A.** 2008. Evaluating the recovery planning of threatened species in Australia. PhD thesis, Universidad de Queensland, Australia.
<http://espace.library.uq.edu.au/view/UQ:178617>.
- **Ortega-Argueta, A.** 2009. Propuesta de un esquema de monitoreo y evaluación para programas de recuperación de especies amenazadas (in Spanish). *Proceedings of the VII Congreso Nacional sobre Áreas Naturales Protegidas de México*, San Luis Potosí. July 2009.

Forthcoming:

- **Ortega-Argueta, A.** XXXX. A proposed framework for monitoring and evaluating threatened species recovery programs.

Thank you!

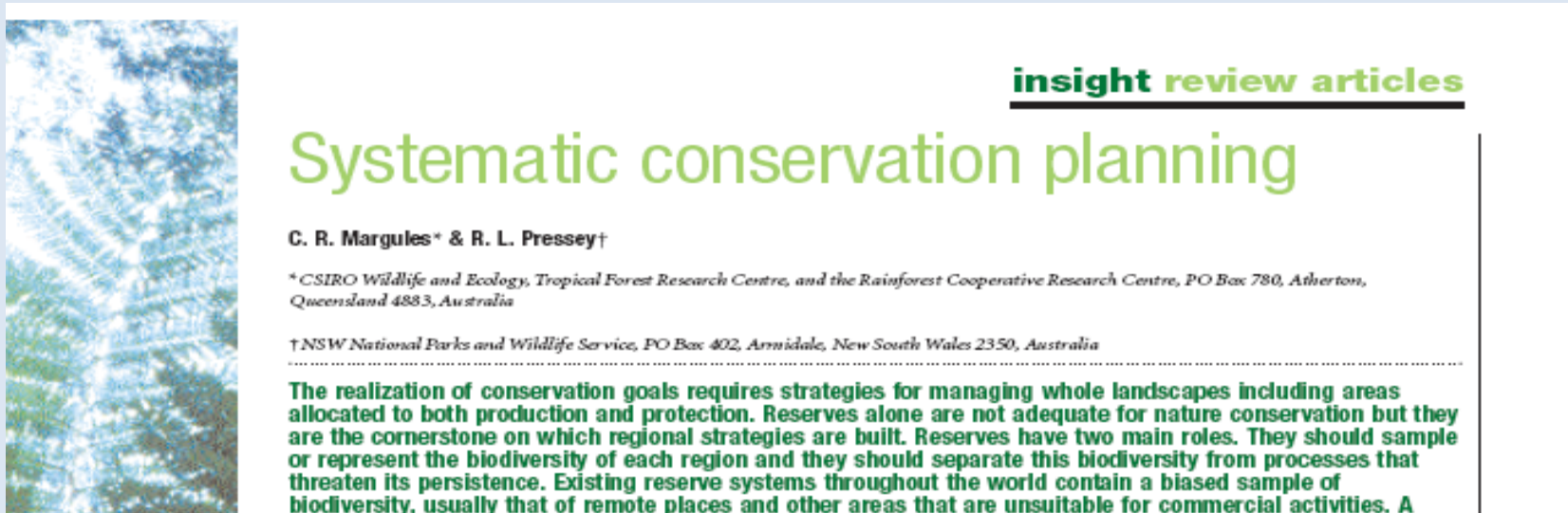


Conservation plans are useless; Conservation planning is essential

Madeleine Bottrill, University of Queensland

Bob Pressey, James Cook University

The evolution of systematic planning



- Increasing integration into institutional frameworks
- Focus on development of tools for spatial prioritisation
- Less progress on operationalising conservation actions
- No comprehensive retrospective assessment to date



The need for evaluation of systematic planning

- Substantial and sustained investment in planning
- Uncertainty about planning effectiveness
 - Planning-implementation gap
 - Ability of plans to address real-world complexity
 - Planning as an academic pursuit
 - Diverting resources from conservation actions
- Benefits of social learning for dynamic approach
- Articulate the absolute value of planning



Integrating evaluation into systematic planning

- Developing standards for measuring planning
- Building an evidence base from existing planning processes
- Multi-method approach:
 1. Semi-structured interviews with planners and implementers
 2. Systematic review of planning documents
 3. Designing framework
 4. Testing approach among subset of plans
- Begin with first principles



Purpose of conservation planning

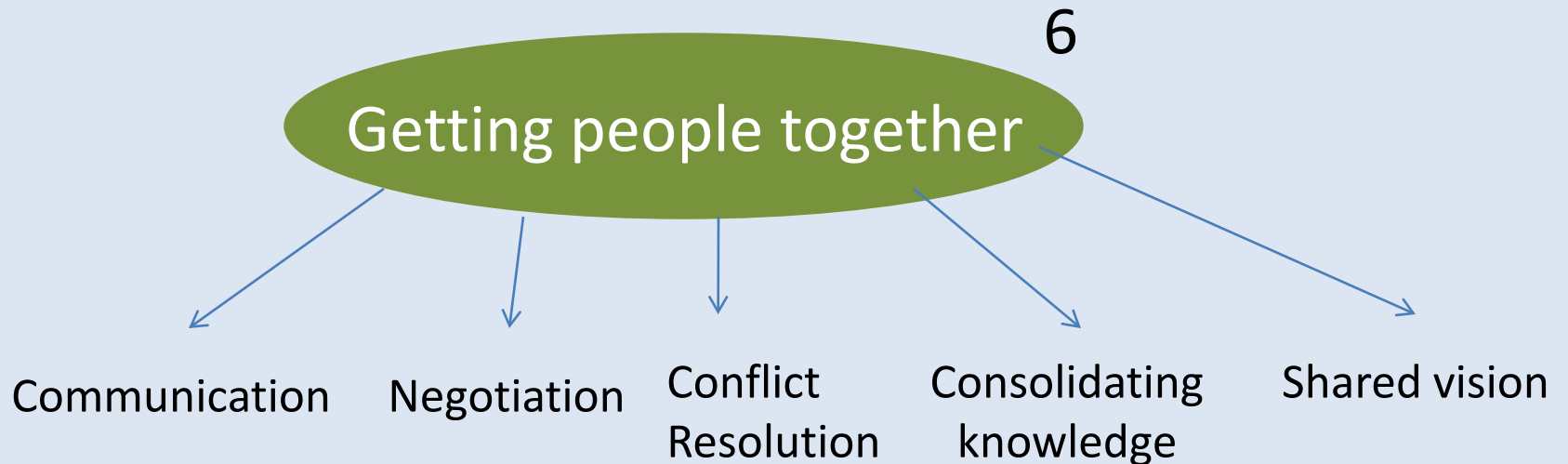
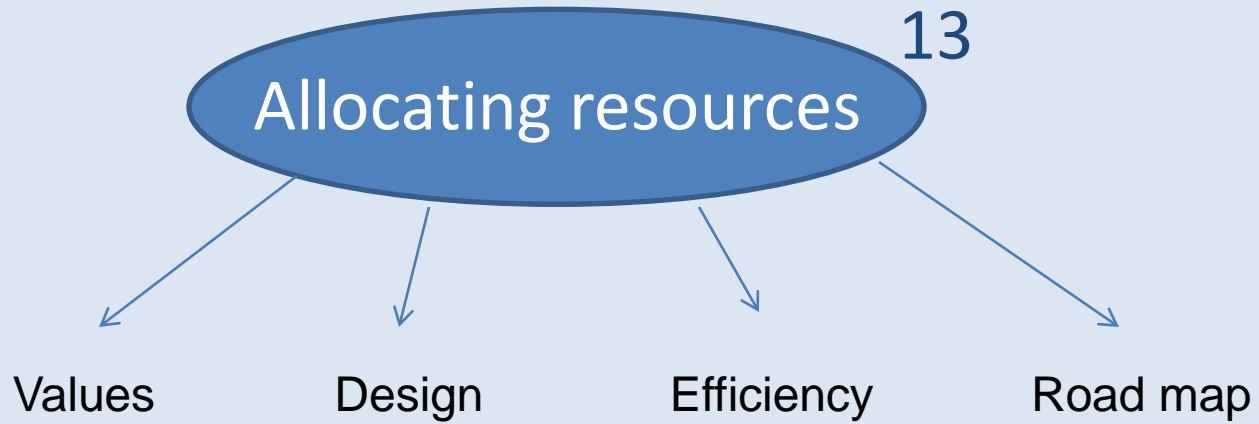
PROCESS



ENDPOINT

To facilitate progress
towards endpoint

To achieve better
outcomes for biodiversity





What does effectiveness mean?

Achieving goals



- Improved condition of biodiversity
- Maximise species at minimum cost
- Social and biodiversity outcomes

Making an impact



- Action on the ground
- Controlling threats
- Representation of protected areas
- Rejecting development applications
- Changing attitudes
- Used by implementers daily

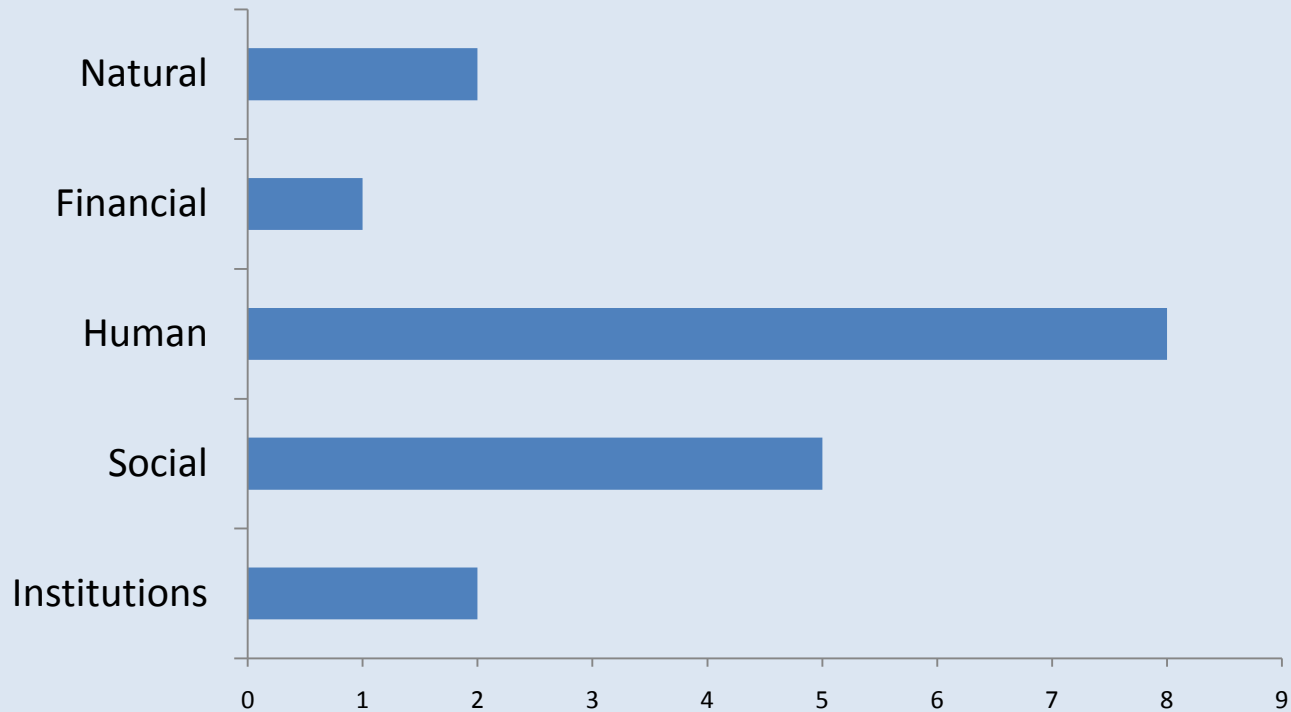
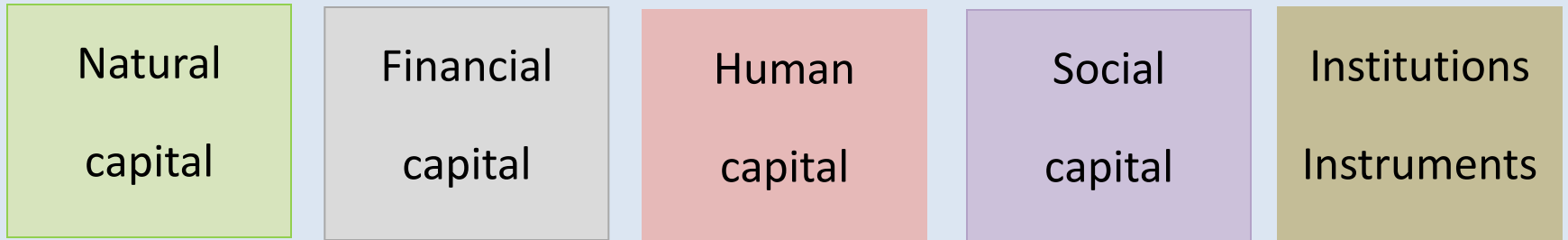
Attributes of plan



- Support from affected stakeholders
- Explicit objectives
- Considers financing
- Self-sustaining
- Linked to investments

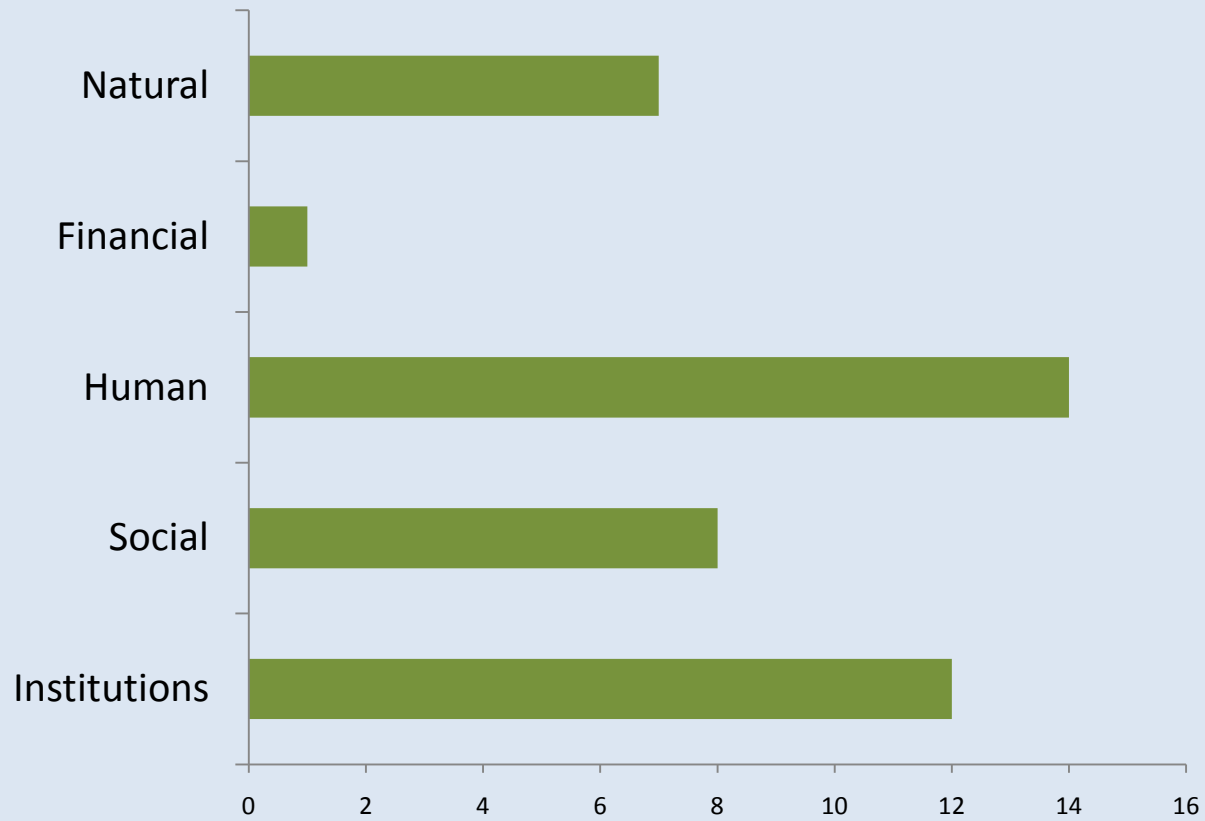


Which outcomes are most important?





Which outcomes are most achieved?





What next?

- Consider inverse of effectiveness: failure and negative outcomes
- Influence of respondent affiliation and their perceptions
- Identify what indicators and outcomes we need to measure
- Develop standards for measuring both individuals plans and specific approaches to planning
- Integrate into the stages of conservation planning

Resources

- Pressey, R. L., and M.C. Bottrill. 2009. Approaches to landscape- and seascape-scale conservation planning: convergence, contrasts, and challenges. *Oryx* 43: 464-475.
- Bottrill, M.C. and Pressey, R.L. 2010. Is systematic conservation planning an effective strategy for designing and implementing regional biodiversity projects? (Review Protocol)
- <http://www.environmentalevidence.org/SR74.htm>
- Contact me: m.bottrill@uq.edu.au

Points for discussion

1. What should we be evaluating in conservation planning?
2. When during the process should we evaluate?
3. What indicators should our evaluations focus upon?
4. How might we maximize the quality of our evaluations?

Continue the discussion at tomorrow's Evaluators Cafe

Quantity or Quality?

Why are so many conservation plans done,
but so few evaluated?

With Andrew Knight and
Madeleine Bottrill

