



# A Review of Policy Instruments used to Manage Protected Resources

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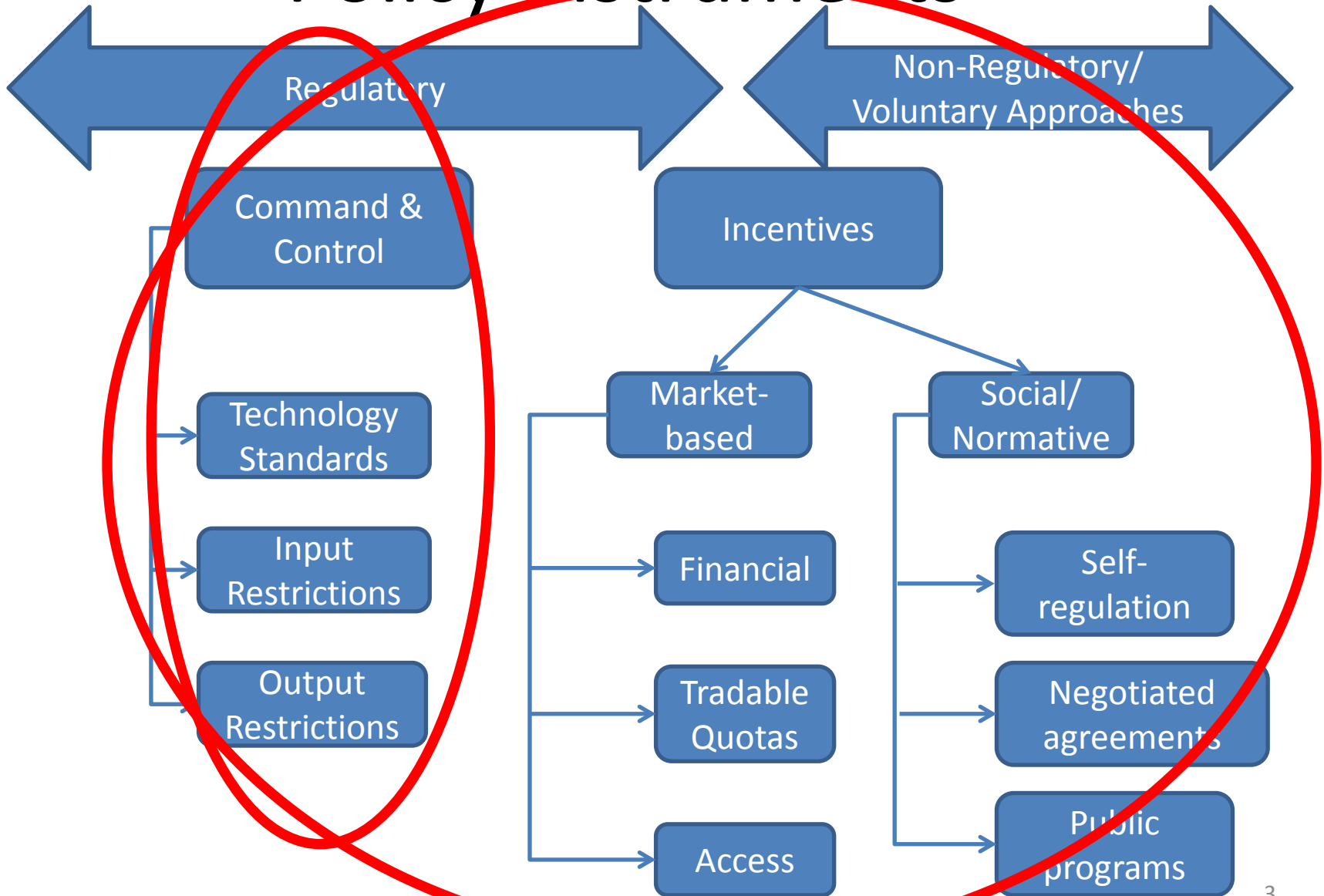
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# Outline

- Policy instruments
- The need for evaluation
- Evaluation components
  - Scope
  - Evaluation criteria
- Next steps

# Policy Instruments



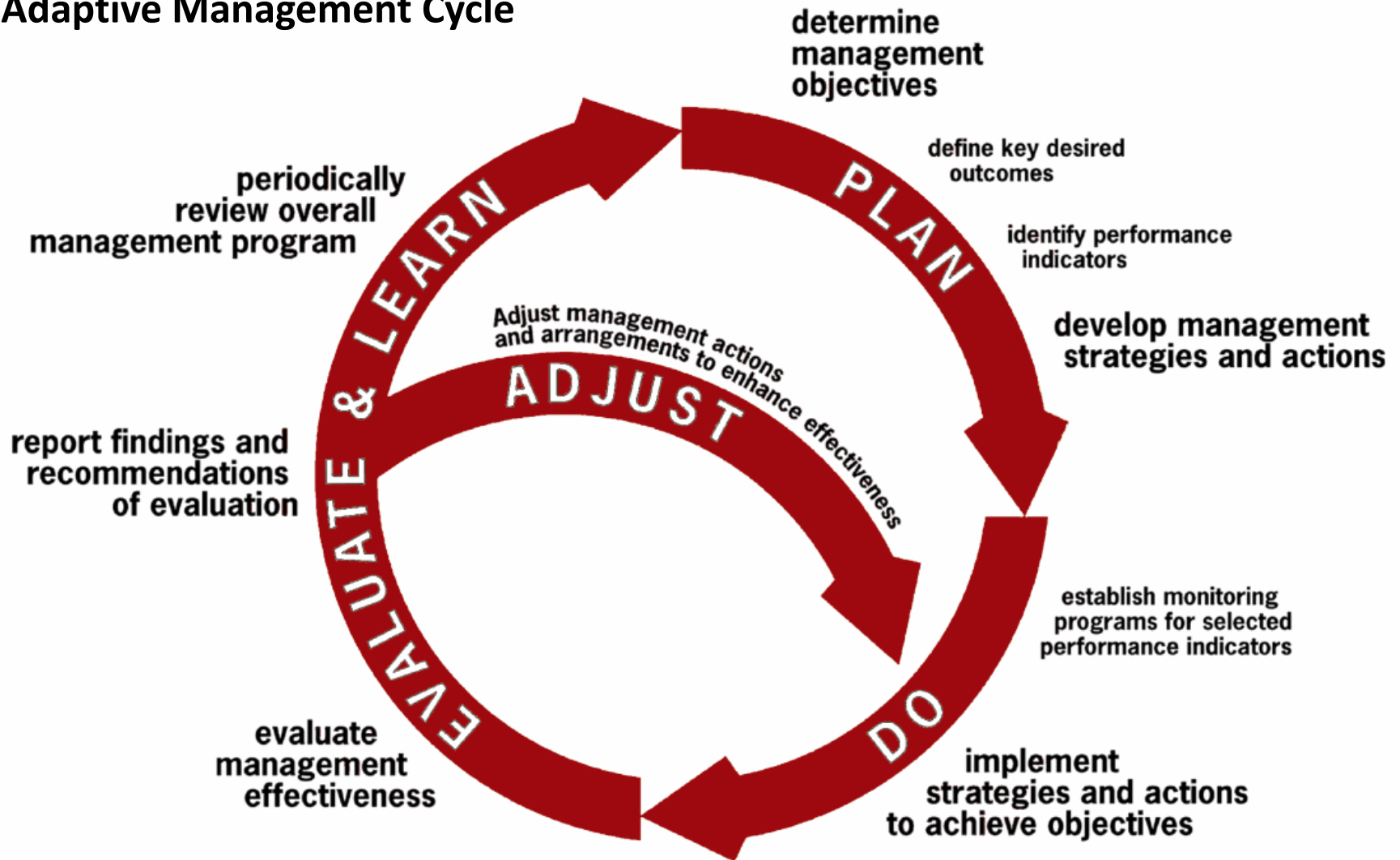
# The need for evaluation

- Workshop Recommendation
  - Conduct post-implementation regulatory policy analysis
    - Benefits: Evaluation of previous actions with back-casting and counterfactual analyses improves our understanding of policy instrument choices to support better forecasting needed for regulatory policy analysis and recovery planning.

# The need for evaluation

- 1990-1994: Problem identified using IWC rules
- 1994-99: **Regulatory Command & Control:**
  - Monthly Porpoise Closures
  - Groundfish Monthly Rolling and Year-Round Closures
- 1999: **Incentives:**
  - Benefits from Cooperation: Successful Pinger Experiment in early 1990's
  - Payments: Pingers adopted in 1999 TRT and subsidized cost
- 2007: Biological indicator identifies a problem bycatch > PBR as a result of:
  - Non-managed areas: Bycatch increases
  - Managed areas: Non-compliance for pingers observed
- 2010: TRT implementation
  - **Regulatory Command & Control:** Expand area where pingers required
  - **Incentive:** Threat of indefinite Consequential Closure if non-compliance

# Adaptive Management Cycle



# Evaluation Scope

- Many protected species move across ecosystem boundaries

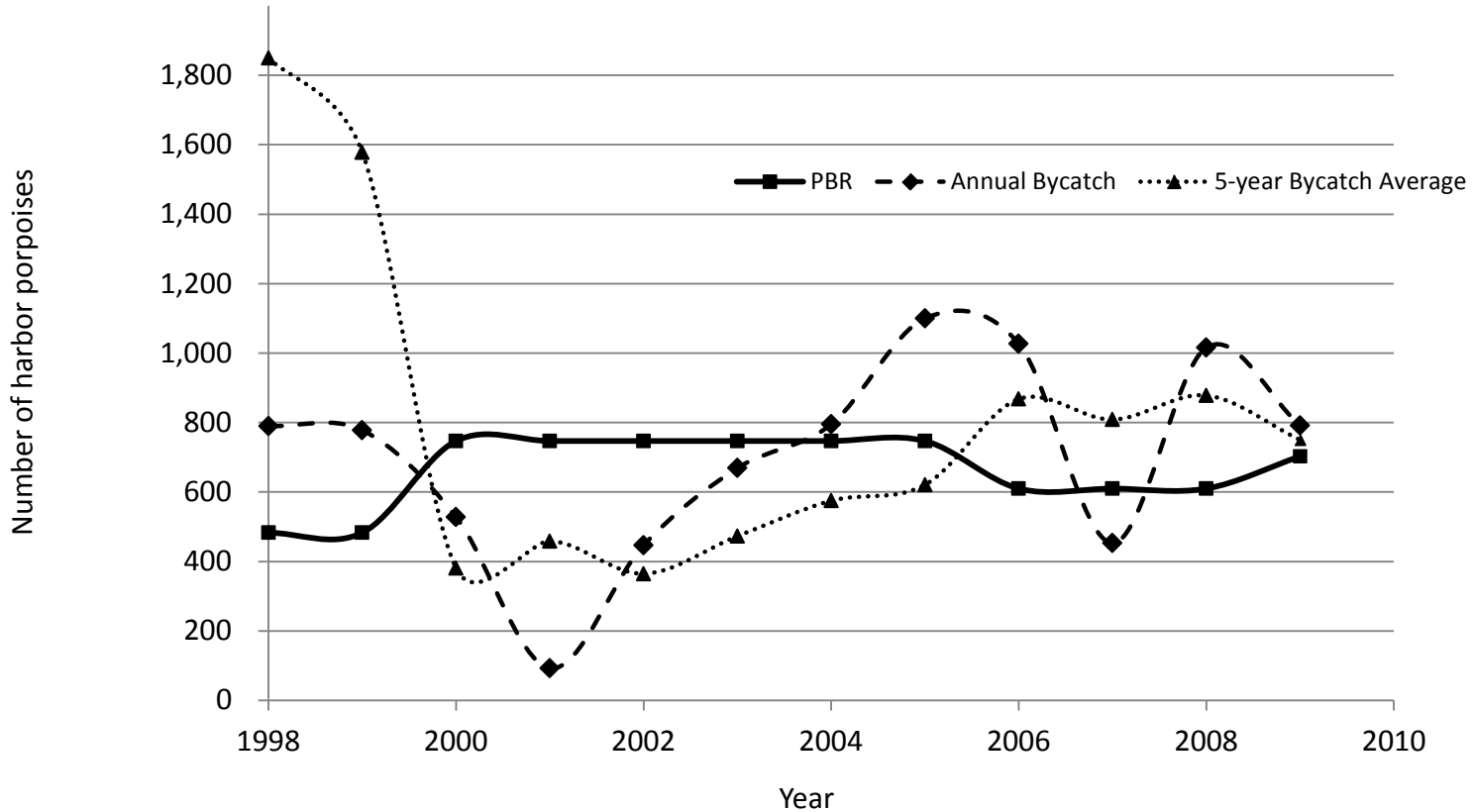


# Evaluation Criteria

- Link to original management objectives
  - For PR usually biological (e.g. PBR)
  - For regulation include economic (e.g. positive net benefits, cost-effective)
- Outcome performance in the areas of:
  - Biological
  - Economic
  - Normative factors
  - Sustainability of policy



# Evaluation Criteria: Biological

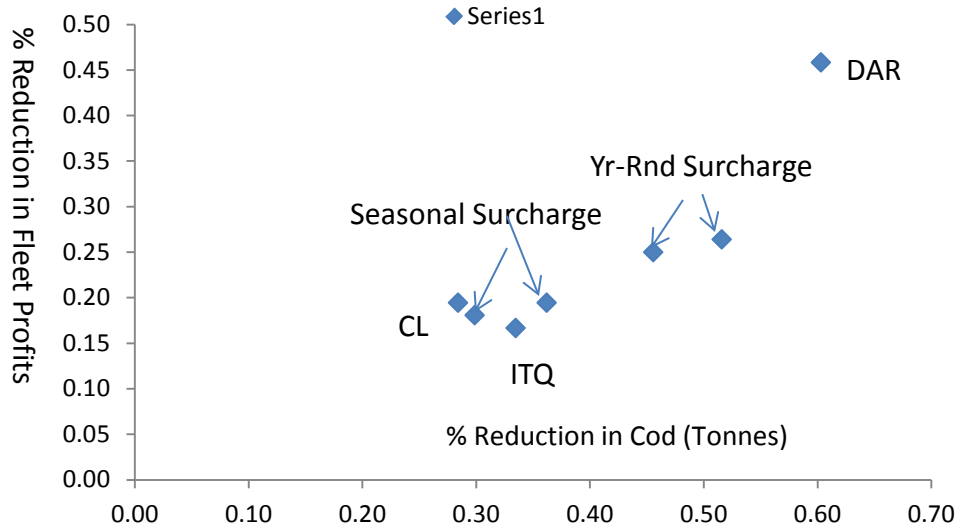


# Evaluation Criteria: Biological

- The measure is likely species dependent:
  - Reduced Bycatch
    - Data Rich – Estimate Bycatch
    - Data Poor - No observed events
  - Increased Abundance
  - Increased Distribution
  - Reduced extinction risk
- Do these link to public values?

# Evaluation Criteria: Economic

Change in Profits for alternative means of reducing harbor porpoise bycatch.



Bisack 2008

	\$ per Hapo	Ratio
Closures All	\$3398	
Pingers All (All Mid-Atl)	\$583	5.8
Pingers All (Partial Mid-Atl)	\$294	9.9
Pingers & Consequential Closures	\$2915	

Harbor porpoise 2008  
Cost-effectiveness  
of TRT alternatives.

# Evaluation Criteria: Economic

- Validating estimates
  - Changes in costs and revenues
  - Response to incentives
  - Regional and international spillovers
- Impact evaluation
  - Key is disentangling impacts from other changes (esp. fisheries management)
- Are there opportunities to simultaneously evaluate fisheries and PR management changes?

# Evaluation Criteria: Normative



2012 & 2013 Focus Group  
Pinger Compliance Research  
What we talked about  
(Bisack and Clay, *in prep*)

# Evaluation Criteria: Normative

- Normative factors are key to compliance and participation
- Can we measure changes in:
  - Levels of compliance and/or participation
  - Attitudes with regard to:
    - Social (Community)
    - Legitimacy
    - Morals (Stewardship)
- Does the baseline data exist to identify change?

# Evaluation Criteria: Sustainability

- Do outcomes improve or deteriorate over time?
  - Consider biological, economic and normative factors
  - Does the institutional arrangement provide for maintenance or sunset of the instrument?
  - Are there synergistic or cumulative impacts with other management actions?

# Next Steps

- Identify 1+ evaluations:
  - By instrument type, species or other?
- Clarify criteria/measures for first cut evaluation
- Expand to additional species/instruments
- Identify those for more detailed analysis