

Harvest strategy policy and stock rebuilding for Commonwealth fisheries in Australia: Moving toward MEY

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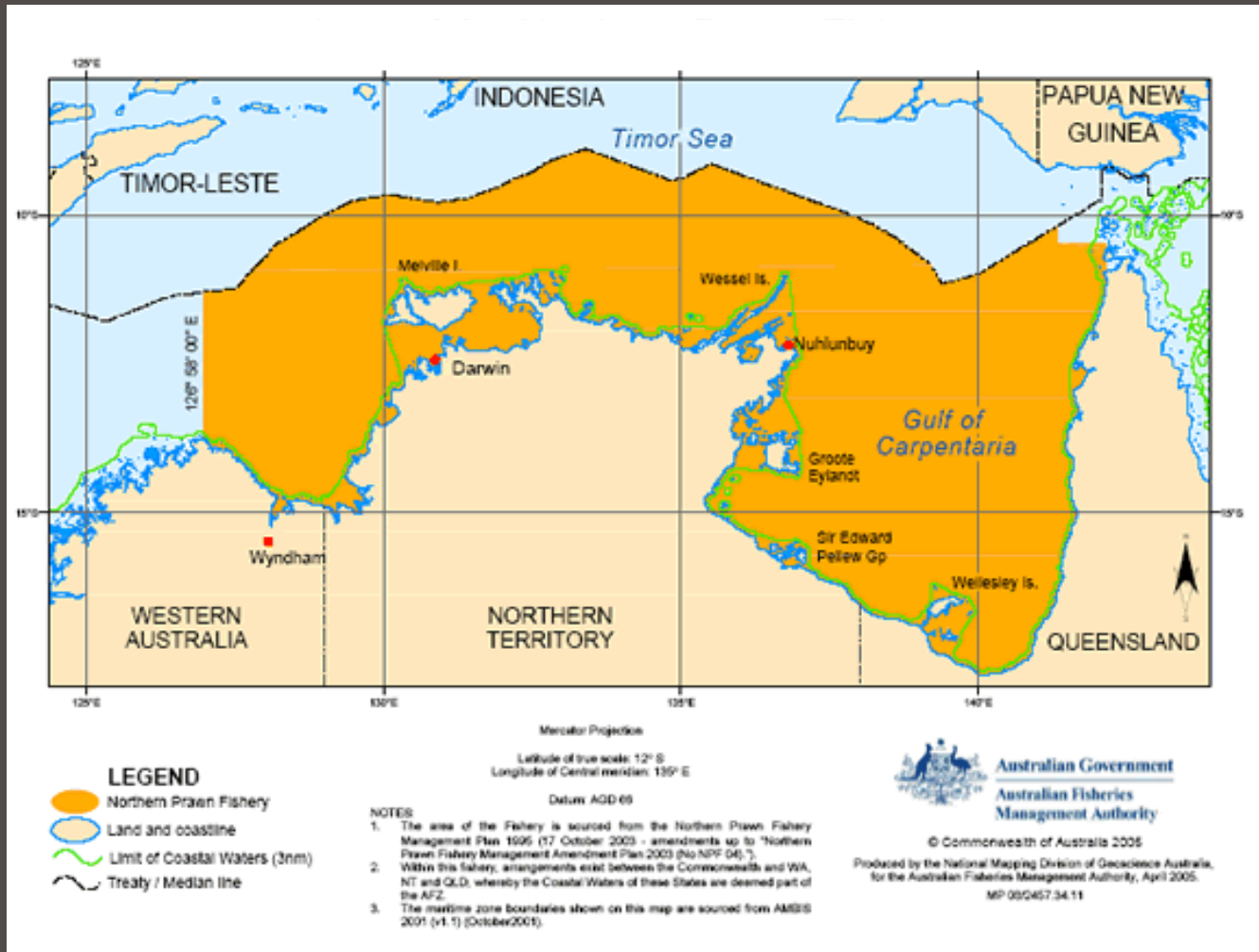
Ministerial Direction

- Recover overfished stocks
- Develop a best practice harvest strategy policy
- Implement ITQs for all stocks unless there are significant impediments to their use

Fishing concession buyback

- Four 'target' fisheries
 - Overfished or at risk of overfishing
- Two stage competitive tender across fisheries
- Between 35% and 55% of entitlements purchased in three of the 'target' fisheries

Area of northern prawn fishery



Net economic returns: northern prawn fishery

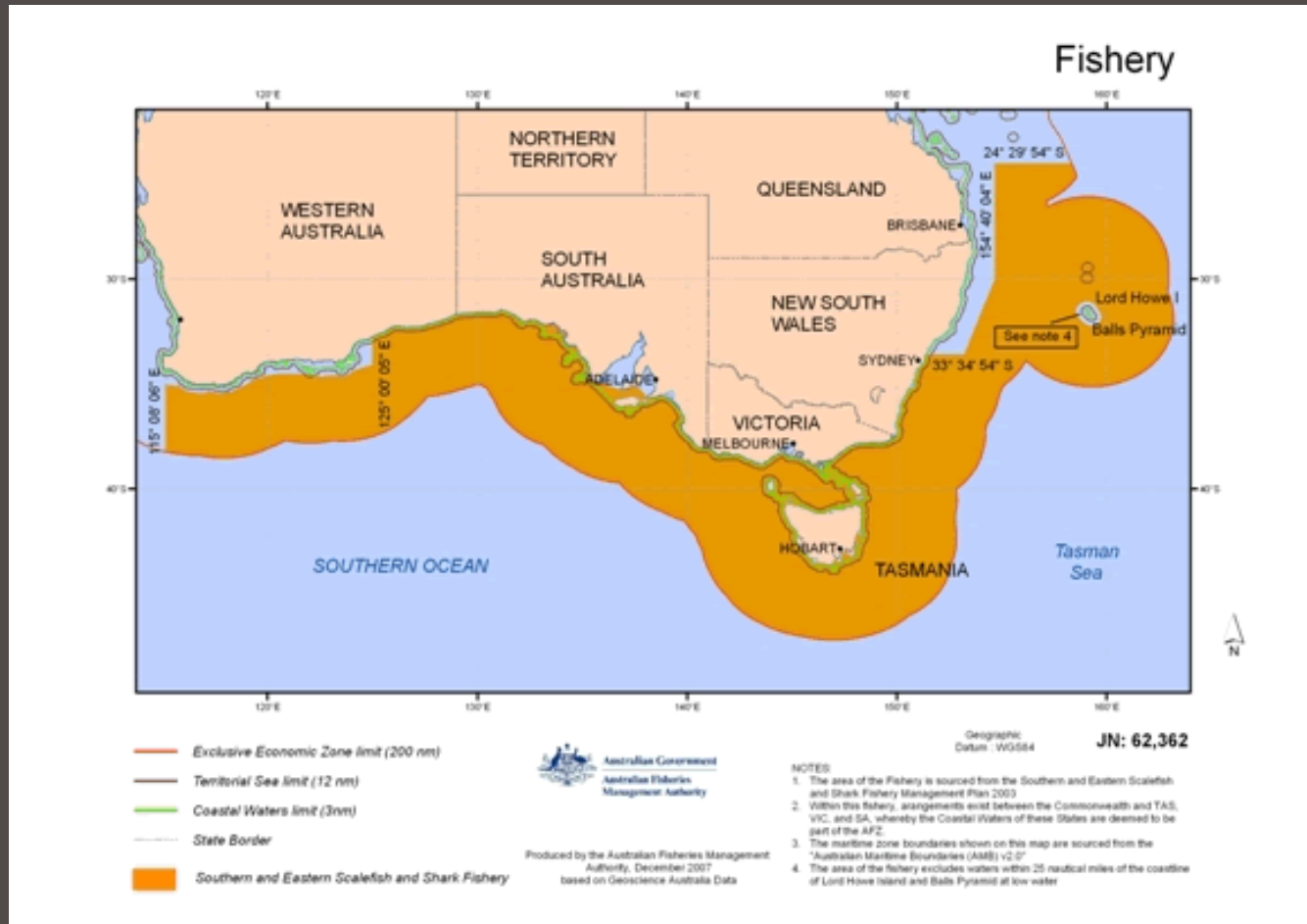


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NPF management issues

- Input control system
 - Difficulty in controlling effort and catch
 - Continual changes to regulations
 - Efficiency and negotiation costs
- ITQs proposed as a superior alternative
 - A condition of inclusion in the buyback
- Bioeconomic modelling indicates excess capacity

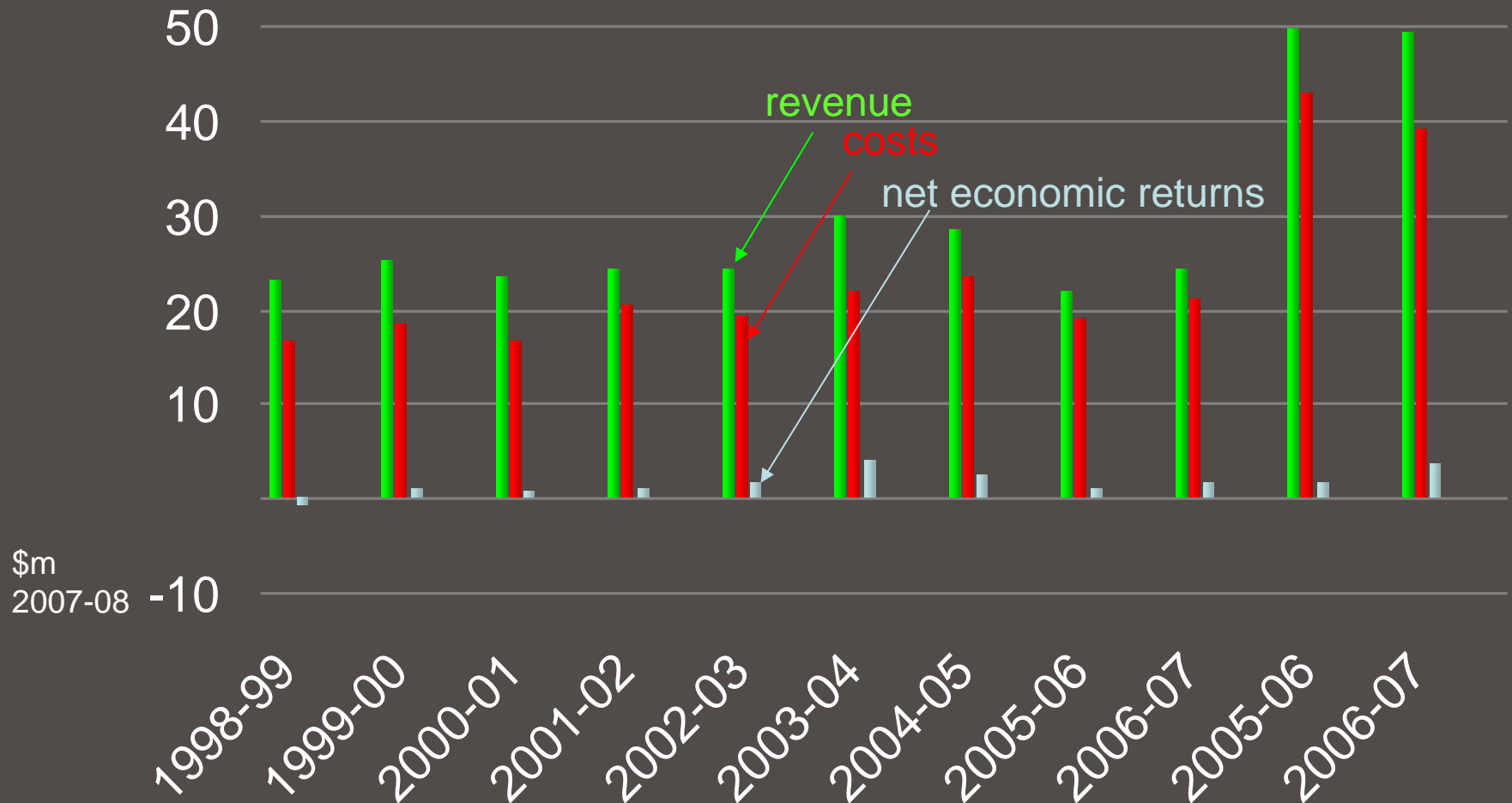
Area of southern and eastern scalefish and shark (SESS) fishery



Net economic returns: Commonwealth trawl sector of the SESS fishery



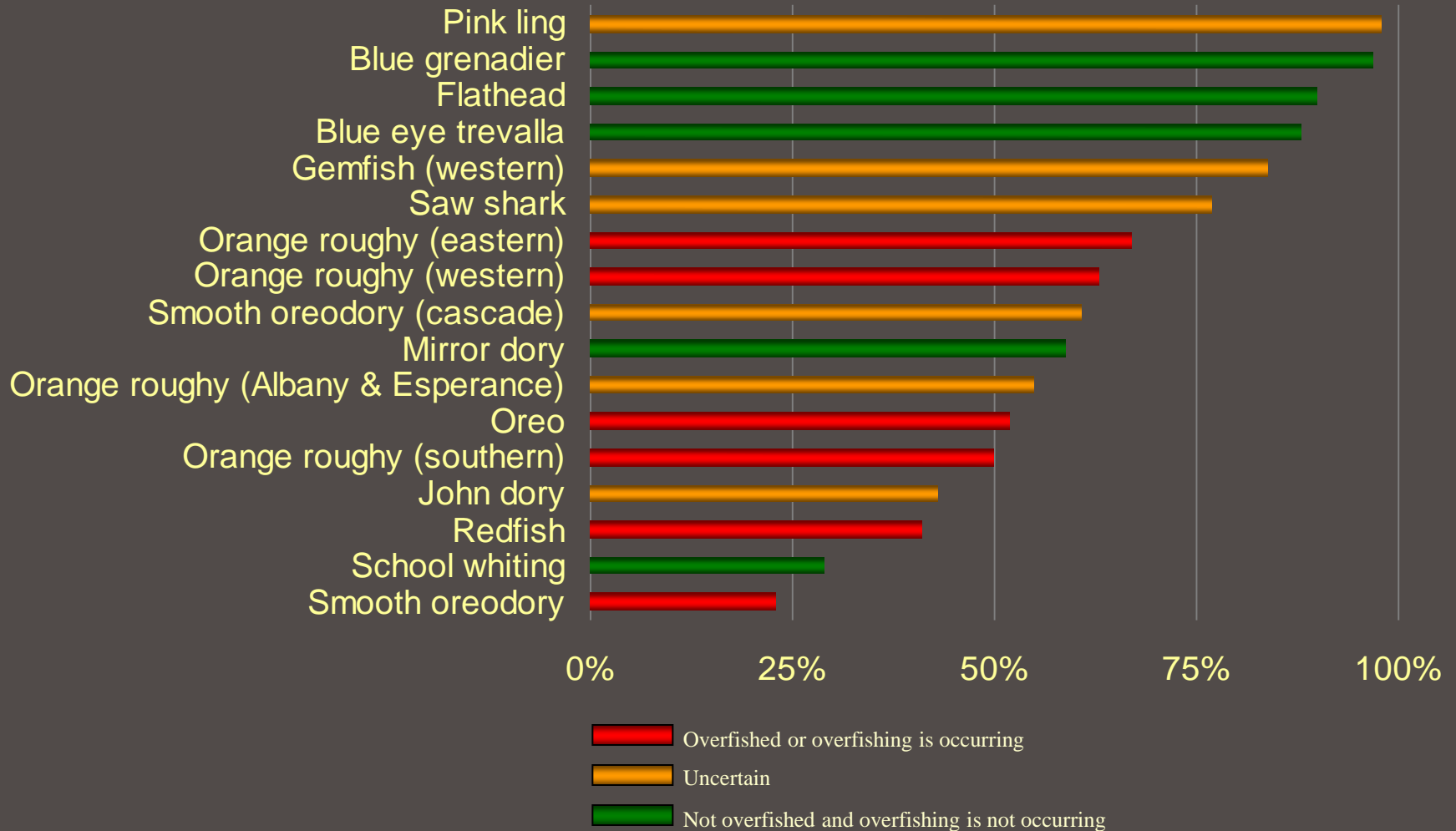
Net economic returns: gillnet, hook and trap trawl sector of the SESS fishery



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Southern and eastern scalefish and shark fishery

Latent effort: Catch as % of available TAC in 2006 (selected species)



Results of bioeconomic model of the Commonwealth trawl sector of the SESS fishery

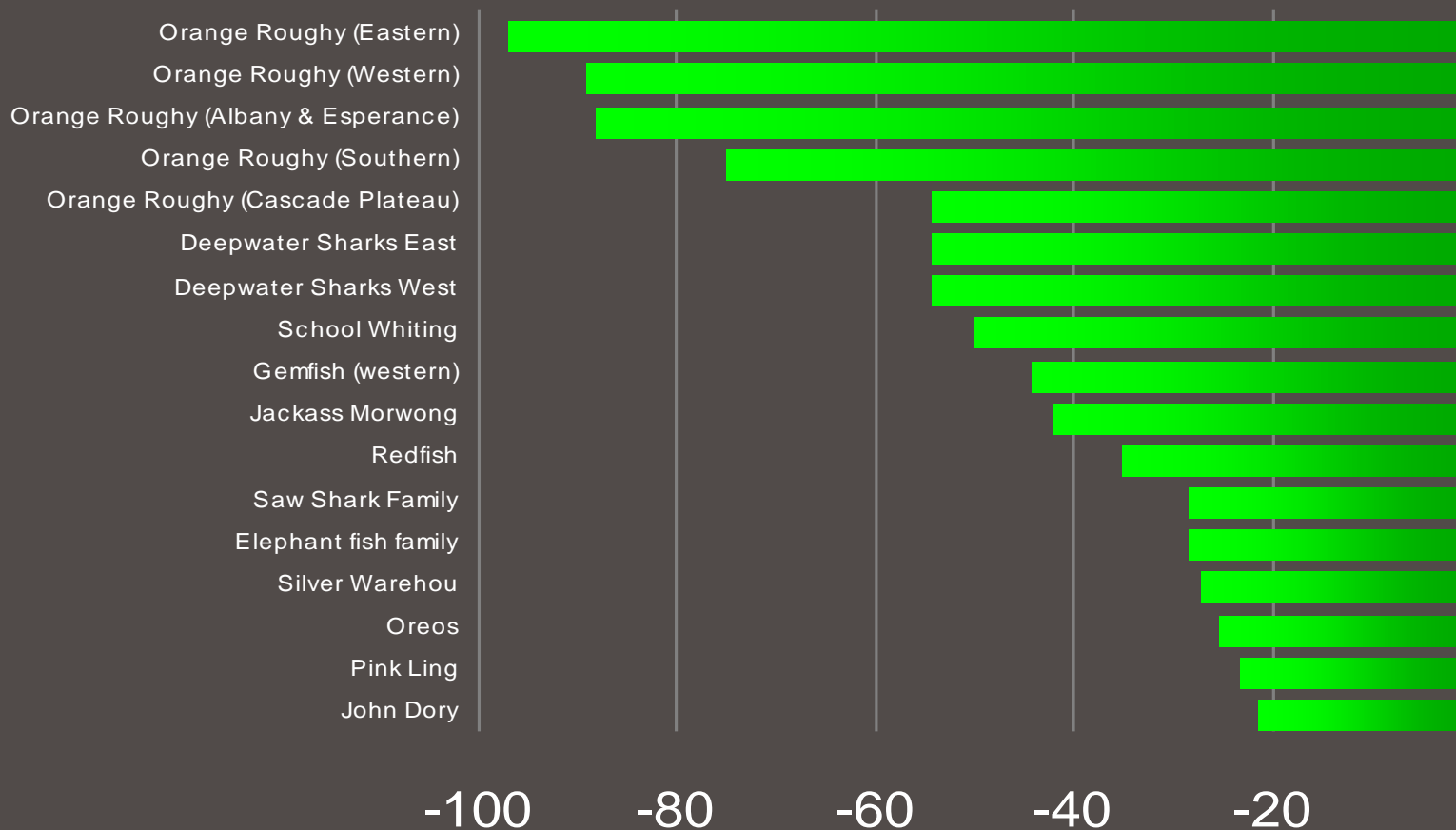
Species	BMEY/BCUR	BMEY/BMSY	Optimal harvest at steady state (MEY)	Initial TAC during rebuild*	Harvest (2004)
			tonnes	tonnes	tonnes
Orange roughy – Cascade	1.64	1.47	995	665	1600
Spotted warehou	1.30	1.08	4117	3114	4100
Pink ling (trawl)	1.80	1.29	1397	914	1073
Tiger flathead	1.05	1.03	3830	2980	3200

* This is the initial TAC during the rebuild phase. The TAC will increase through time over the rebuild period up to the optimal TAC at steady state.

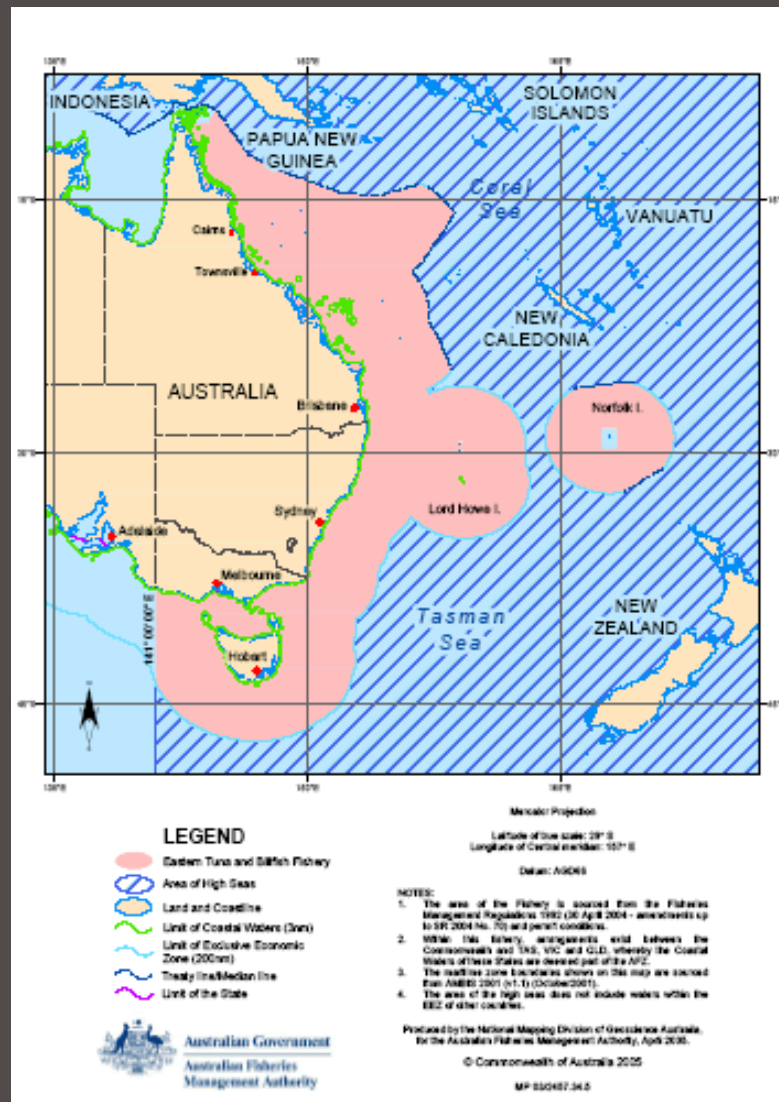
Entitlement buyback in the SESS

- 50% reduction in trawl boat permits
- 30% reduction in gillnet boat permits
- 57% reduction in shark boat permits

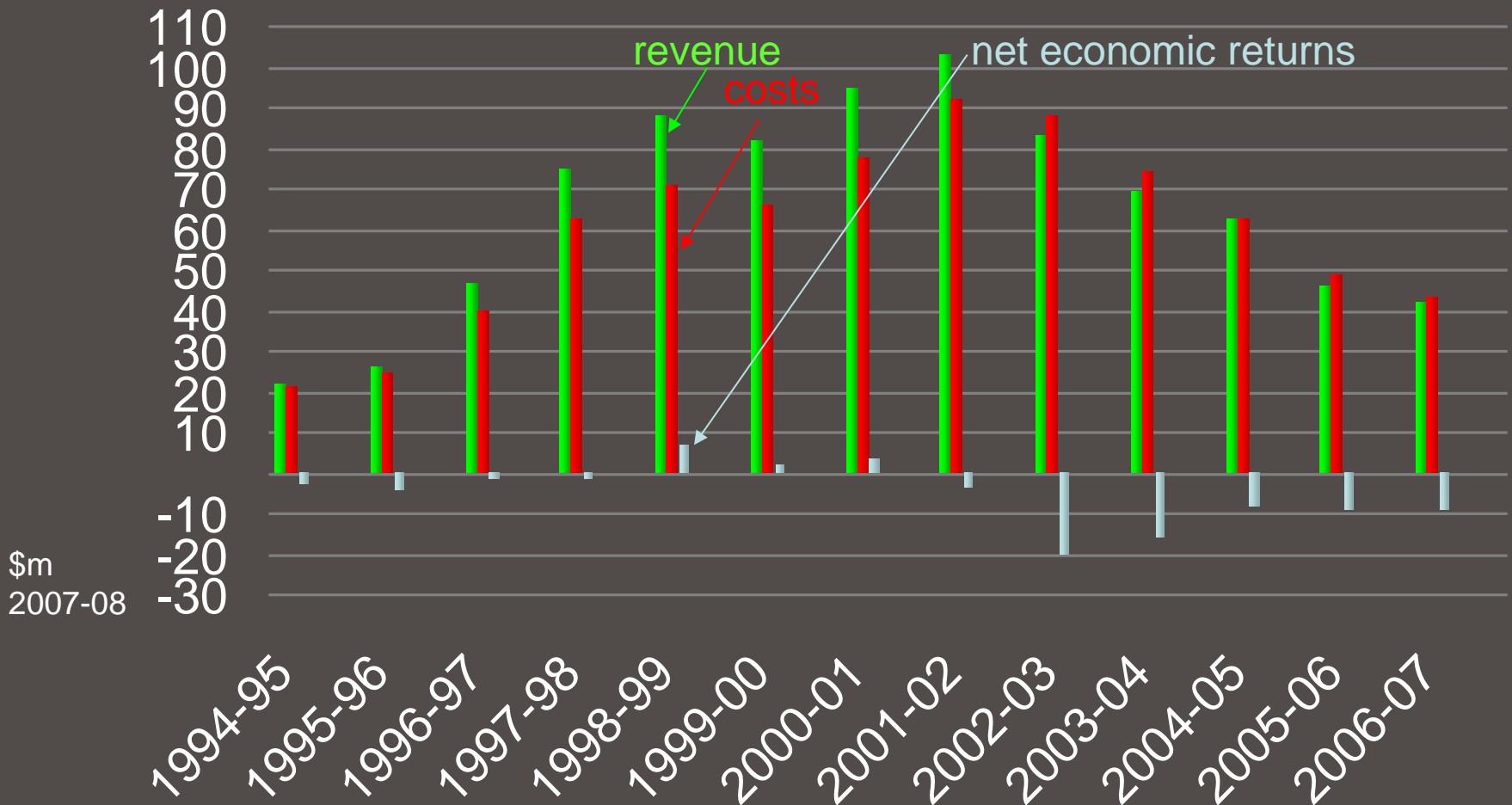
Per cent reduction in SESS TACs: 2005-2009 (selected species)



Area of eastern tuna and billfish fishery



Net economic returns: eastern tuna and billfish fishery

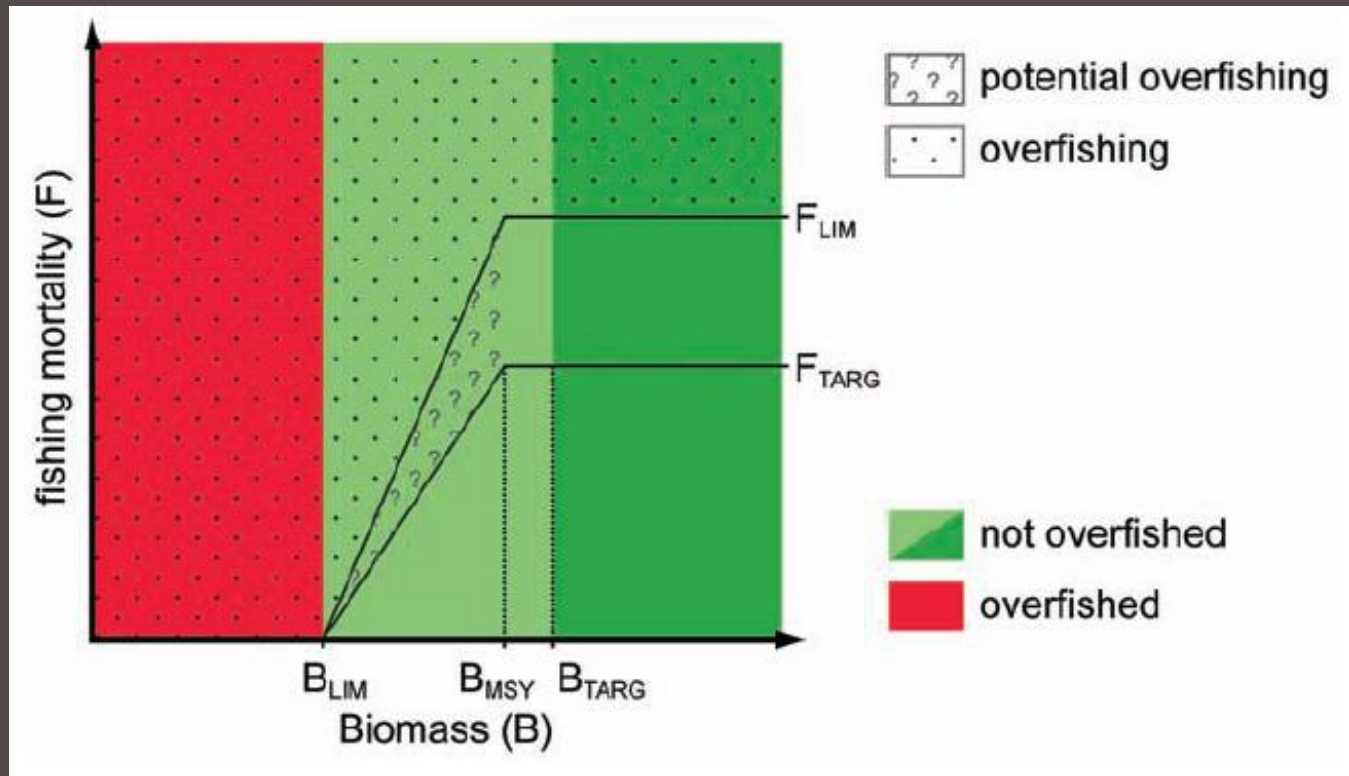


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Harvest Strategy Policy

- Commercial fish species managed for long term biological sustainability and economic profitability
- Clearly defined reference points that trigger management action
- Target biomass and fishing levels to be consistent with MEY

Example harvest control rule



MEY issues

- MEY estimates not available for most fisheries
- Transition path
- Updating MEY
- Multispecies fisheries
- Low value fisheries

A proxy for MEY

- $B_{MEY} = 1.2 * B_{MSY}$
- $B_{MEY} = 0.48 * B_0$
- Use more suitable proxies if available

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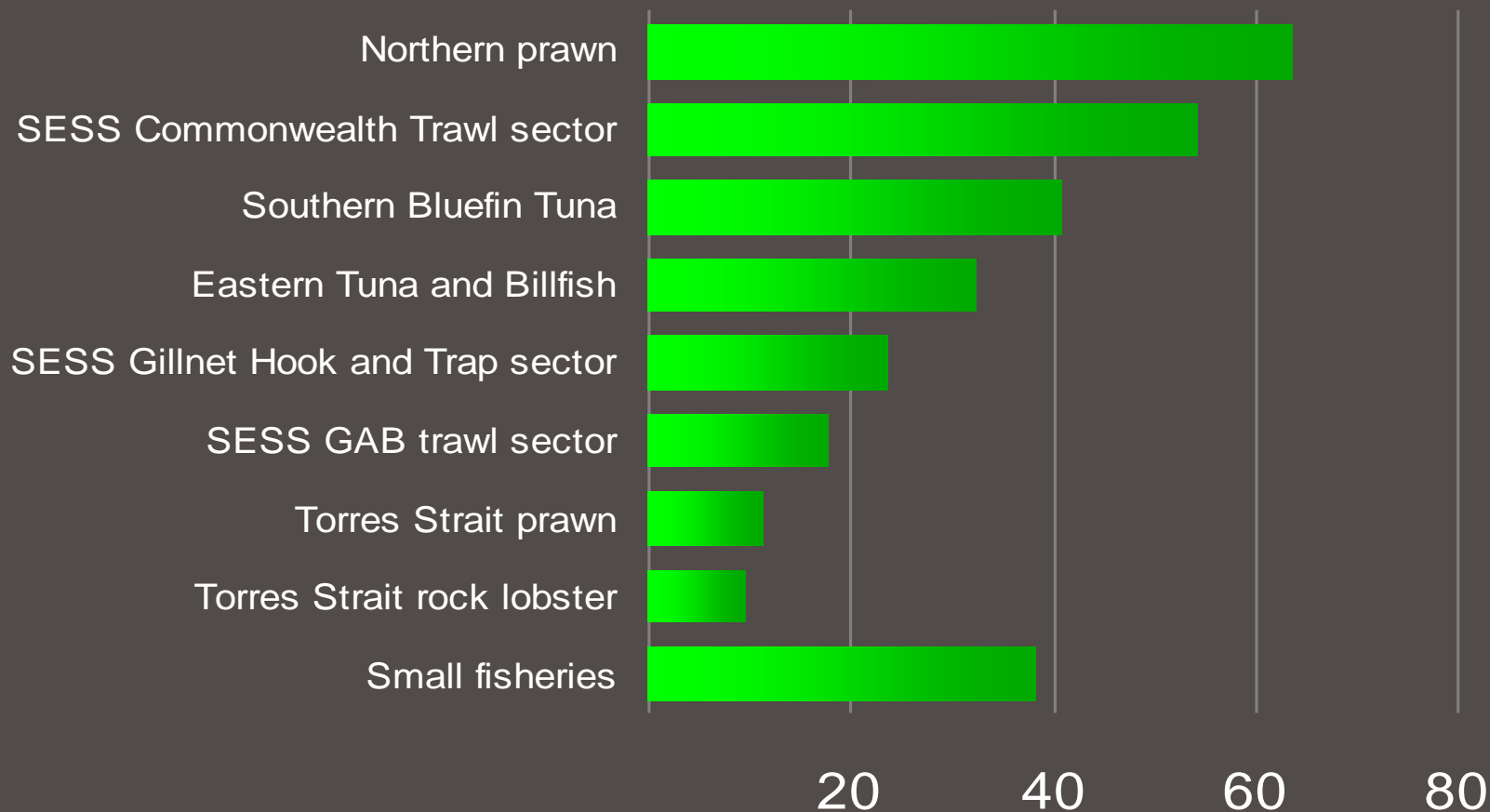
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Gross value of production of Commonwealth fisheries in 2006-07 (\$A million)



Conclusion

- Realising benefits requires management change
- HSP provides improved transparency and certainty
- MEY target 'frames' the debate