

ECONOMICS IN LARGE MARINE ECOSYSTEMS

THE CASE OF THE BCLME

Why does economics tell different stories about fishing?

Why is the economics of fishing an ecosystem not the same as the economics of a single fishery?

Traditional economic logic looks at the distinction between Micro & Macro:

the whole does not behave simply as the sum of the individual parts.

The fallacy of composition

The gap between ecosystem thinking and single species thinking is far wider

Five general reasons for the distinction

- 1) property rights problems
- 2) implications for fishing rents and for the meaning of 'rent depletion'
- 3) bycatch and other principle/agent issues
- 4) implications for ecolabelling & other value adding processes
- 5) dumping and other problematic trade practices

1) Property rights & transboundary problems

Aspects of fugitive and straddling stocks:

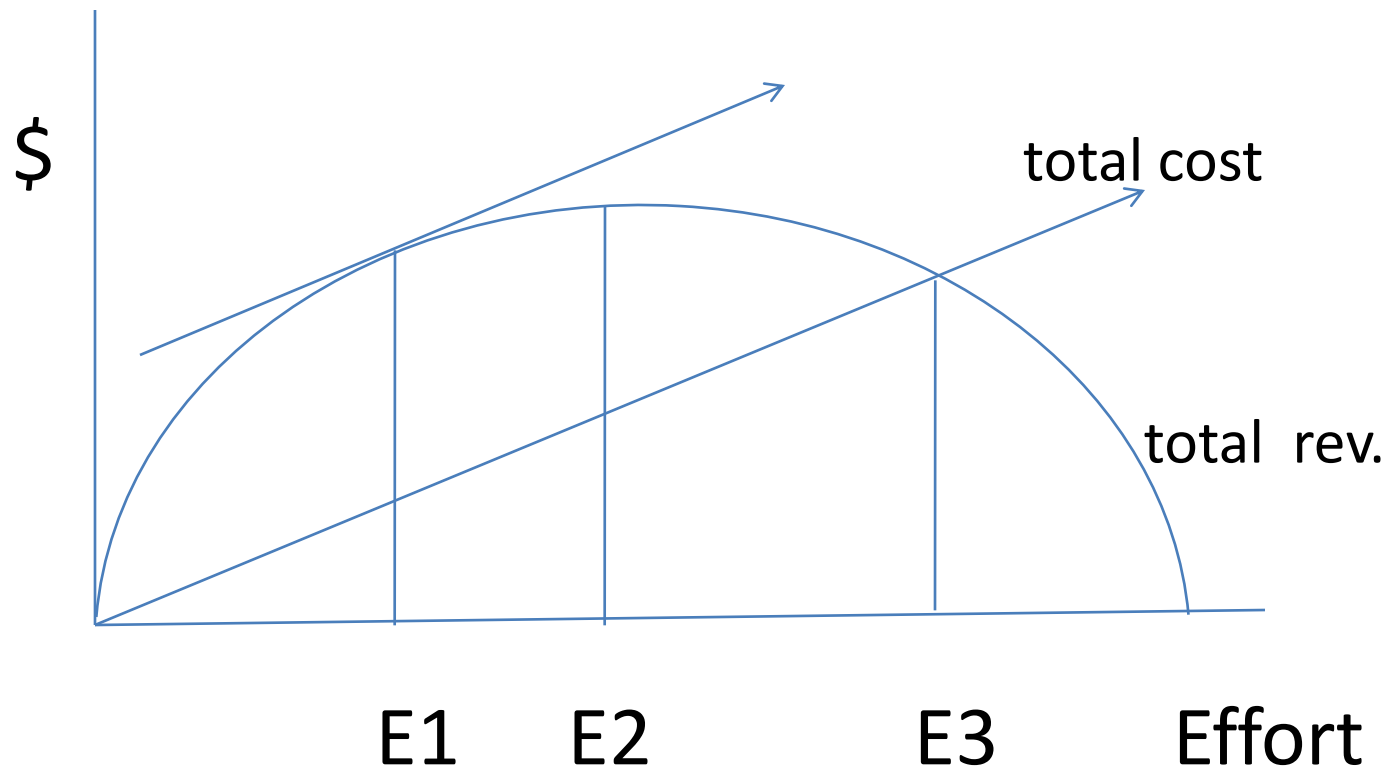
- a) dissimilarities in legal systems
- b) differences in levels of development (industrial and national)
- c) value related migration issues (is there an optimal place and time to harvest?)

2) Identifying the maximum rent in a multi-species world

- should we be fishing our way back up Pauli's food chain?
- If we can't harvest at the top and at the bottom of the food chain simultaneously, does it make more sense to spend money catching anchovy and feeding them to chickens, or to leave them in the sea and let higher value commercial fish eat them?

WHERE IS RENT MAXIMISED?

TRADITIONAL SIMPLE TEXTBOOK STORY



Ecosystem approach to rent maximization

The ocean as a giant feedlot

- Different species
- => different prices and harvest costs
- Feed conversion system
- Predator prey interactions
- Data and predictive modelling requirements are far beyond those currently available
- Need to address impacts of migration and localised population cycles e.g. S.A./Nam/Angola pilchard and sardinella

3) Principles/Agents and Bycatches

Targeting high value bycatch, highgrading, using illegal gear, trans-shipping etc

Principle/agent problems come from the perverse incentives implicit in contracts. They are present at all levels:

- International: can foreign fleets be trusted?
- Regional: does the LME authority trust the contracting states?
- National: do governments trust the industry?
- Industrial: should companies trust crews?

Is there an ideal structure?

A system that avoids perverse incentives:
what's good for the individual should be good for the resource!

E.g. assume a fugitive commercial species:

- how many firms should be harvesting it?
- should they be multi-national or not?
- should permit be regional or national?
- Should crew be paid a share of the catch?

4) Implications for ecolabelling

- What was the original aim... to achieve sustainability and restore depleted rents
- Has ecolabelling been worth the effort?
- Jury still out
- BUT, where the species involved is a straddling or fugitive stock, ecolabelling only makes sense if all affected states buy in!

5) Trade policies

- Everyone wants to catch high value fish, trouble is what to do with the low value ones!
- Case of the Benguela's baby hake? Why was Namibian baby hake being sold here at R3/Kg