

# Implementation of Long Term Management Plans in European Fisheries

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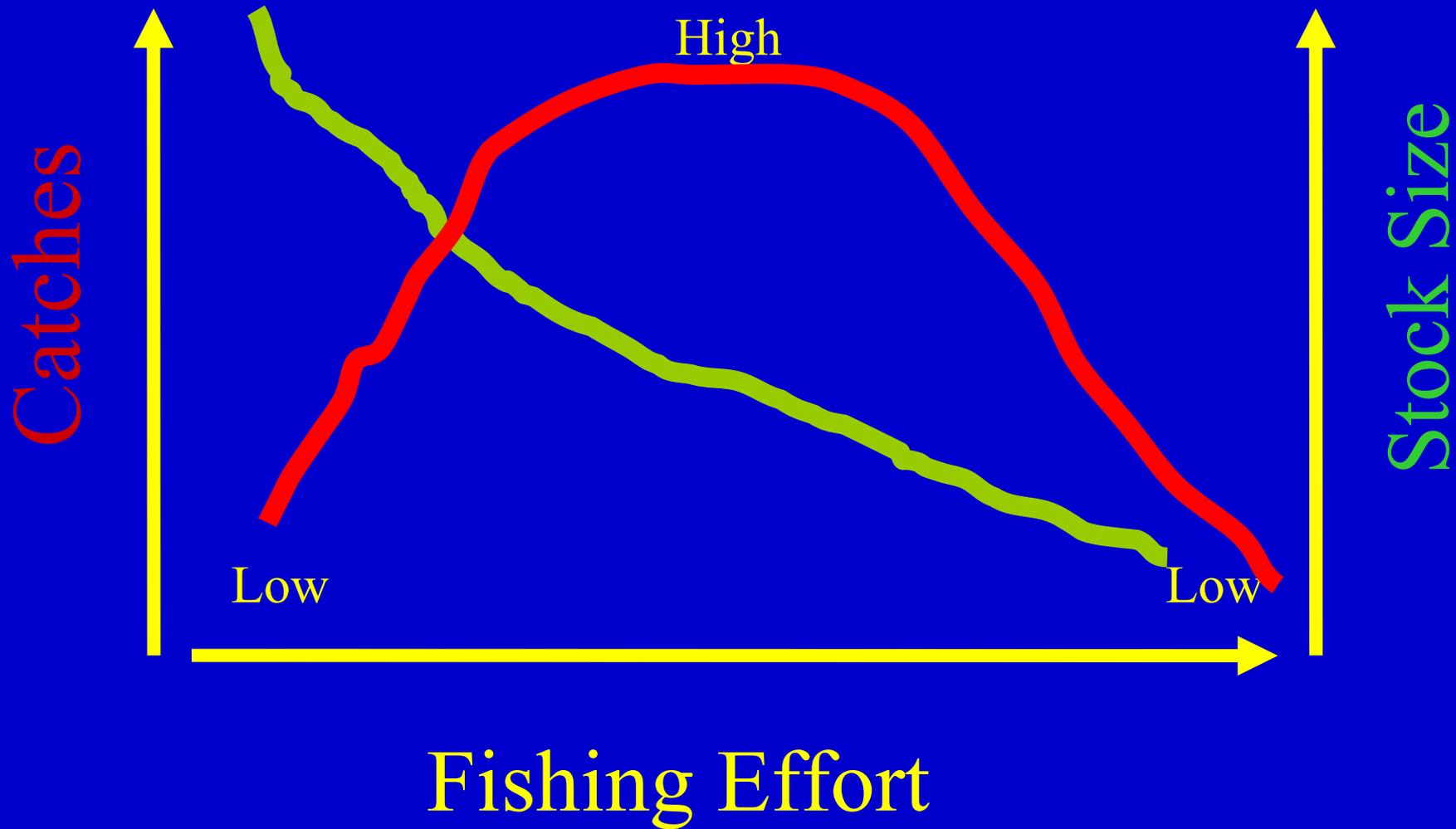
**Directorate-General for  
Maritime Affairs and  
Fisheries**



# What is this about ?

1. Life without a plan
2. Moving to multiannual decisions
3. TAC-setting rules and biological reference points
4. Experience gained: case studies
5. What works and what doesn't

# 1. Life without a plan



# Commission policy: 1982

- Closure of fisheries on stocks which were in danger of or had suffered a recruitment failure
- Achievement of exploitation at the rate of  $F_{max}$  on all stocks, by a reduction of fishing mortality rate by 10 percent each year for stocks exploited at greater than  $F_{max}$

# Policy post-1982

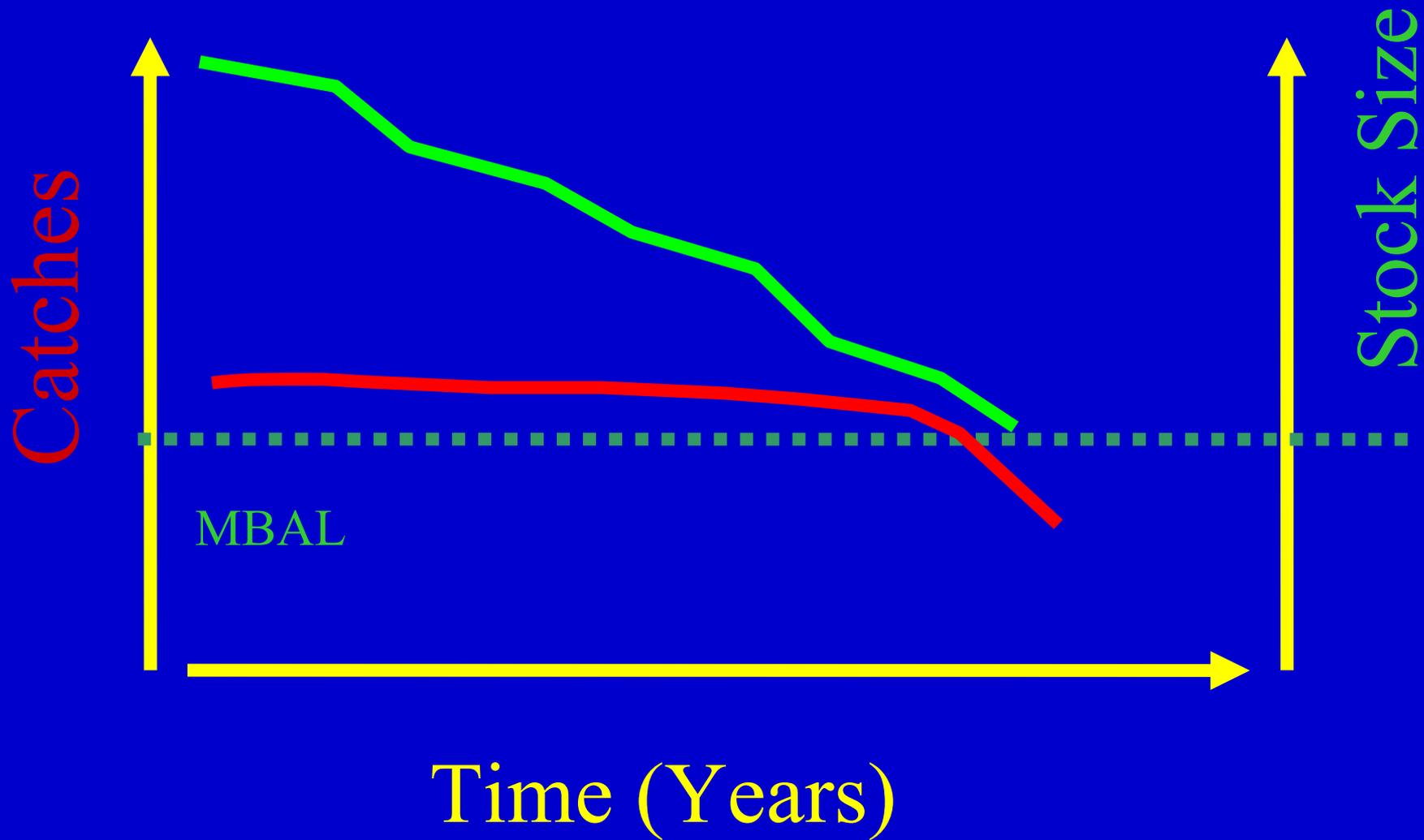
TACs to stabilise fisheries at the existing level of the fishing mortality rate.

Once this is achieved, then set TACs which will reduce the fishing mortality rate by about 10 percent a year on stocks which are over-exploited, but not necessarily to the level of  $F_{max}$ .

The final decision on target  $F$  will depend upon how stocks react to reductions in the fishing mortality rate, if and when this is achieved.

# Policy in 1991-1999

- Science to advise on the state of the stock in relation to a minimum biologically acceptable level (MBAL).
- Managers to decide on social and economic grounds on a TAC that keeps stocks above this level.



# ICES « pa » policy 1999-

- MBAL concept expanded to fishing mortality as well as biomass;
- Separate « precautionary » and « limit » levels introduced
- Decision-making on annual basis.

## 2. Moving to multiannual decisions

# Selling points

- Possible to set an objective and a means for reaching it: design for success.
- Can allow more stability for the industry as well as better conservation prospects through long-term follow-up.
- Better order in the process rather than last-minute avoidance of TAC cuts.
- Whole process can be evaluated and assessed.

# Objections ...

- Ministers must not have their hands tied when making decisions on fishing opportunities.
- The plans can lead to unexpected results.

# Legal basis

- Long-term measures agreed bilaterally with Norway (saithe, haddock, herring, etc.)
- Plans agreed in Regional Fisheries Organisations (Tuna, greenland halibut)
- Plans in EC law:
  - Recovery plans on basis of Article 5 of Regulations 2371/2002
  - Management plan on basis of Article 6
  - Long-term plan on basis of EC Treaty

# Steps in Developing an EC plan

- Scientific advice
- Non-paper from Commission to stakeholders and Member States
- Consultations in RACs
- Commission prepares an Impact Assessment
- Commission presents a proposal to Council and Parliament
- Opinion of Parliament
- Adoption by Council
- Member States to implement capacity decisions

# Institutional Problems

- Shared stocks : Norway first or Council first ?
- Recovery, Management or Long-term ?
- Economic data in support of LT plans.
- Link to Member States' operational programmes in EFF and capacity development plans

# What's in the plans ?

- Biological reference points, to identify the markers of «success » or « failure » as targets and warning points.
- Rules for setting TACs as a function of current stock size estimates and fishing mortality rates
- Limits on TAC changes between years, applicable in some circumstances.
- Effort management systems

# 3. TAC-setting rules and biological reference points

	<b>Above Bpa</b>	<b>Bpa - Blim</b>	<b>Under Blim</b>
Herring IV	$\approx F_{msy}$	Sliding scale	$F = 0.1$
Herring VIa (prop.)	$\approx F_{msy}$	0.8 $F_{msy}$	No fishing
Herring I, II	$\approx F_{msy}$	Sliding scale	$F = 0.05$
Herring Icelandic	$\approx F_{msy}$	$\approx F_{msy}$	$\approx F_{msy}$
Mackerel	$F = 0.15$ to $0.2$	undefined	<i>No Blim is set</i>
Cod (current)	$\approx F_{msy}$ (IV only)	+30% SSB	undefined
Cod (proposed)	-10% $F$ to $F_{msy}$	-15% $F$ to $F_{msy}$	25% $F$ reduction
Cod Baltic	-10% $F$ to $F_{msy}$	-10% $F$ to $F_{msy}$	-10% $F$ to $F_{msy}$
Haddock IV	$\approx F_{msy}$	Sliding scale	$F = 0.1$
Saithe IV	$\approx F_{msy}$	Sliding scale	$F = 0.1$
Sole, Plaice IV	$\approx F_{msy}$	-10% $F$ to $F_{msy}$	undefined
Sole VIIIab	Undefined	-10% $F$	undefined
Sole VIIe	$F_{max}$	-5% $F$ ; 15% 3yrs	undefined
S Hake	Undefined	-10% $F$ to $F_{msy}$	-10% $F$ to $F_{msy}$
N Hake	Undefined	$F_{pa}$	undefined

Where does a 15% stability  
criterion apply ?

	<b>Above Bpa</b>	<b>Bpa - Blim</b>	<b>Under Blim</b>
Herring IV	XXXXXXXXXX	optional	
Herring VIa (prop.)	XXXXXXXXXX		
Herring I, II			
Herring Icelandic			
Mackerel			
Cod IV (current)	XXXXXXXXXX	XXXXXXXXXX	
Cod IV (proposed)	XXXXXXXXXX	XXXXXXXXXX	
Cod Baltic (F-based)		XXXXXXXXXX	XXXXXXXXXX
Haddock IV	XXXXXXXXXX		
Saithe IV	XXXXXXXXXX		
Sole, Plaice IV	XXXXXXXXXX	XXXXXXXXXX	
Sole VIIIab		XXXXXXXXXX	XXXXXXXXXX
Sole VIIe	XXXXXXXXXX	XXXXXXXXXX	
S Hake		XXXXXXXXXX	
N Hake		XXXXXXXXXX	

5. What works and what  
doesn't ?

	<b>Start</b>	<b>Control</b>	<b>Stock in 2007</b>	<b>F in 2007</b>	<b>Catch in 2007</b>	<b>Improvement?</b>
Herring IV	1997	13%	+75 %	- 22 %	+54 %	+++
Herring I, II	1999	-	+ 43 %	- 25 %	+ 5 %	+++
Herring Icelandic	1987	-	+ 74 %	- 33 %	+ 110 %	+++
Mackerel	1999	15%	- 6 %	- 8 %	- 25 %	-+-
Cod IV	2004	106%	- 7 %	- 38 %	- 18 %	-+-
Cod, VIa	2004	705%	- 4%	- 28 %	- 9%	-+-
Cod, VIIa	2004	152%	- 55 %	+ 19 %	- 45%	---
Haddock IV	1999	0.6%	+ 7 %	- 30%	- 60 %	++-
Saithe IV	1999	3%	+ 56%	- 29%	- 6 %	++-
Sole VIIIab	2005	16%	+ 8%	+ 22%	+ 7 %	+ - +
S Hake	2004	64%	+ 125%	+ 38%	+ 147 %	+ - +
N Hake	2003	10%	+ 31%	- 3%	+ 11 %	+++
Baltic cod, VIIe sole, sole and plaice IV				Too early to tell		

# Have they worked ?

- Most have succeeded in reducing fishing mortality, but not:
  - sole VIIIab, southern hake, Irish sea cod (high unallocated landings).
- For mackerel, catches exceeded TACs in mid-1990s, stock declined then and is now recovering.
- Haddock: Stock size is increasing and fishing mortality decreasing, but catch varies according to recruitment, which is highly variable for this stock.
- Too early to tell for Baltic cod, VIIe sole and flatfish IV.

# Factors for success

- How to measure success
- Dependence on:
  - Effort management
  - 15% TAC constraints
  - Enforcement
  - Time

# Measuring success

- Fishing mortality reduces = 1 point
- Stock size increases = 1 point
- Landings increase = 1 point
  
- Maximum score = 3
- Minimum score = 0

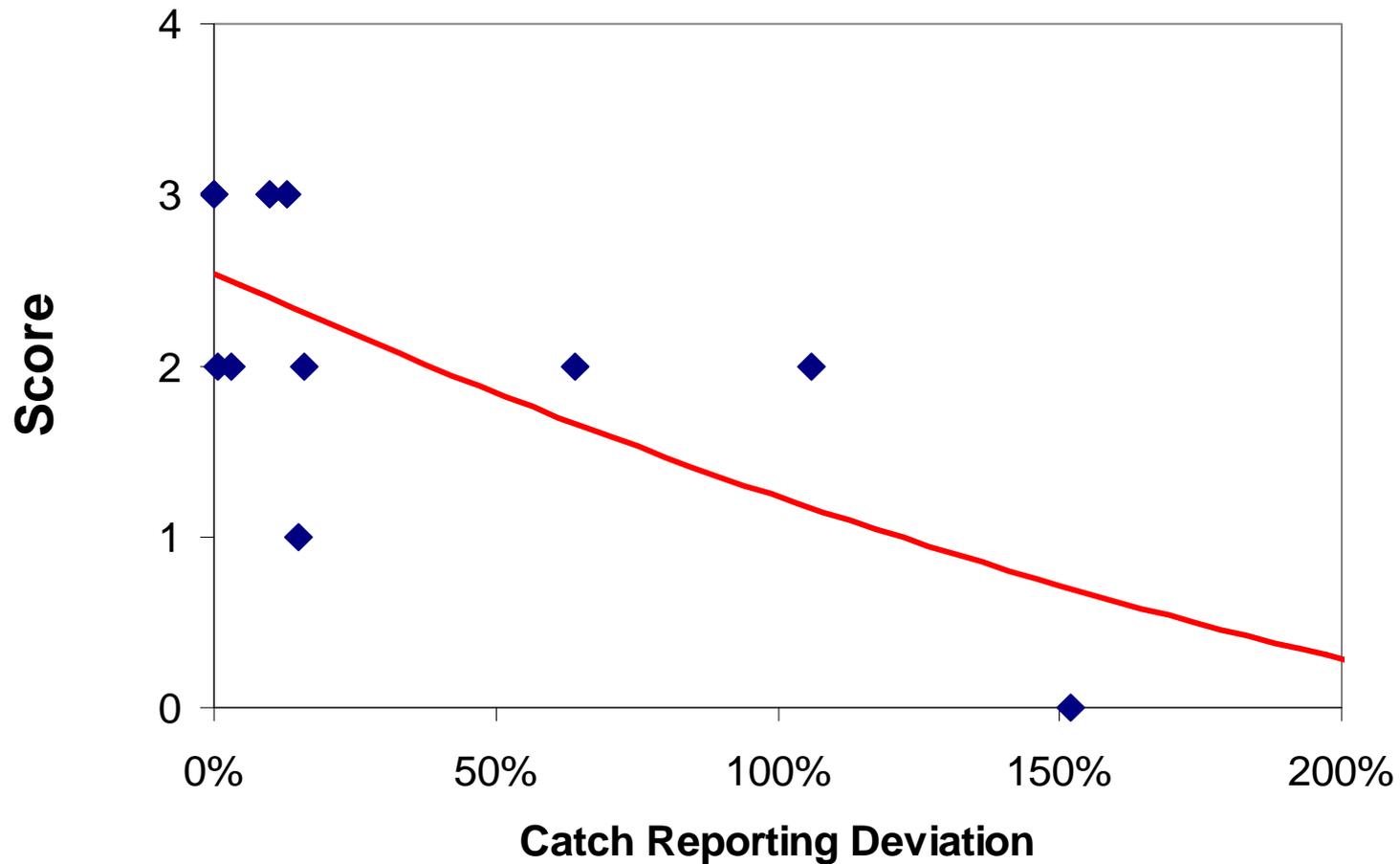
# Effort Management

- Average score for stocks under effort management = 1.4
- Average score for stocks not under effort management = 2.4
- Has effort management been successful?

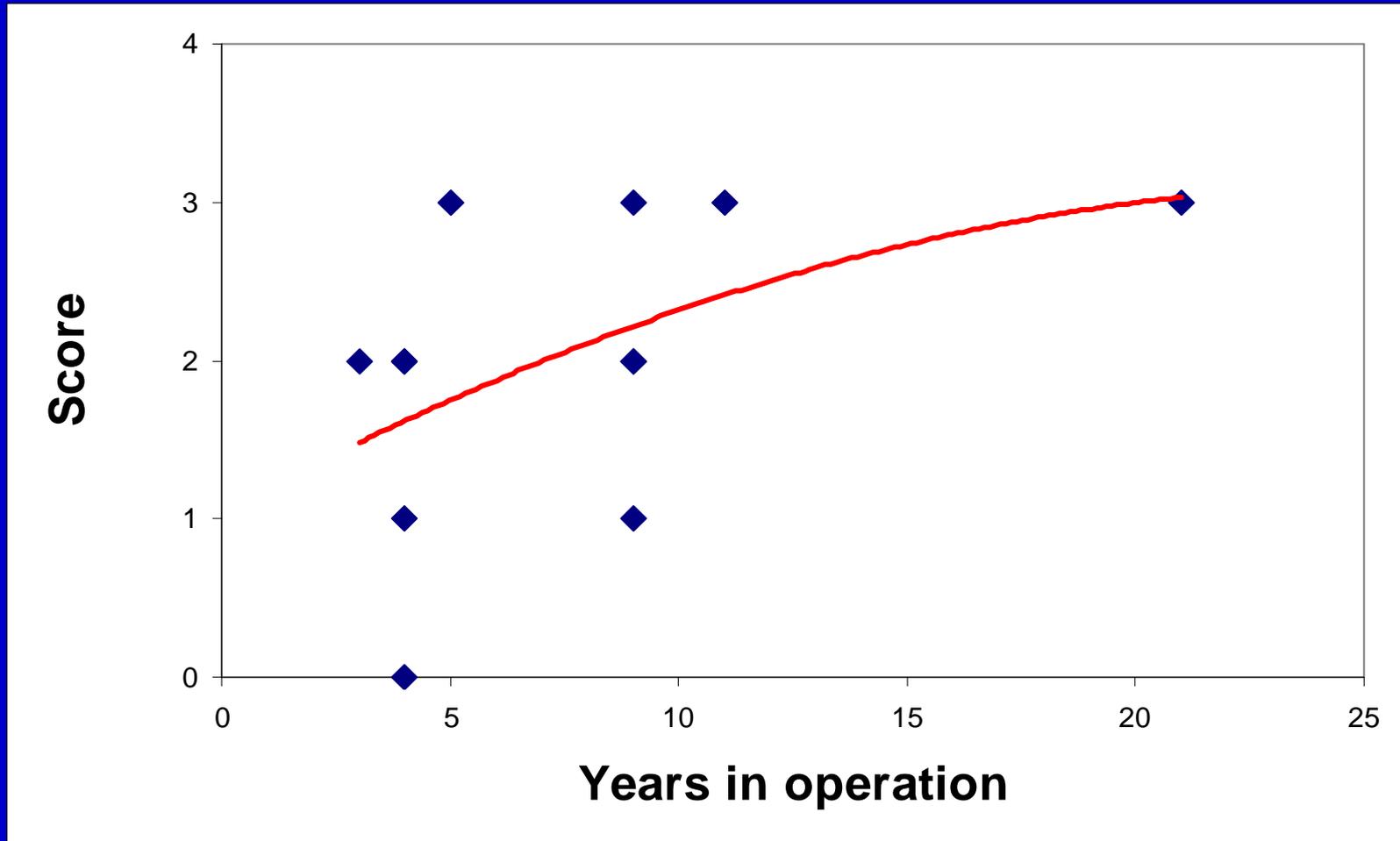
# 15% TAC constraints

- Average score for stocks with 15% TAC constraints = 1.7
- Average score for stocks without 15% TAC constraints = 2.3
- Do +/- 15% TAC constraints limit the effectiveness of long-term plans ?

# Does landing control matter ?



# How long do they take to work ?



# What adds value ?

- Effort management has not yet delivered success.
- 15% TAC constraints may slightly reduce the efficiency of the plans.
- Poor landings controls makes the plans inefficient.
- Benefits take a long time to develop : between 5 to 15 years.

# Problem areas

- Effort management
  - not restrictive, does not solve problems of IUU catches nor of discards. Under review and new system being proposed.
- Mixed fisheries
  - We have made no progress in area-based, mixed-fishery plans. Scientific advice has been requested but is difficult to develop.

# Forthcoming plans

- Western horse mackerel, at pelagic RAC initiative.
- West Scotland Herring
- Baltic Salmon and Pelagic stocks
- Implementation of eel recovery plan
- Hake long-term plan

# Afterword: TACs for 2009

- ICES advice leads to TAC increases for only 8 stocks in EC waters in 2009
- 6 of these stocks are under long-term plans