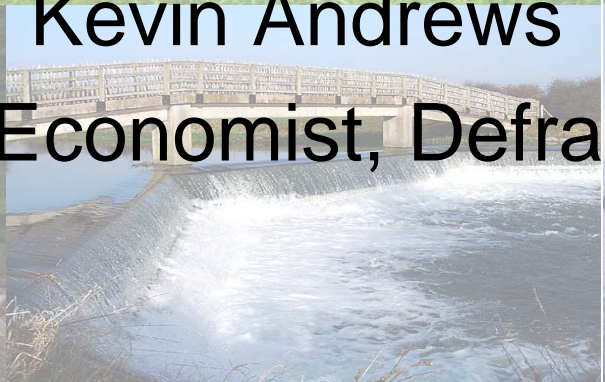




Economic issues of WFD and Hydromorphology



Kevin Andrews
Economist, Defra



Outline

- Work on economics generally
- Issues arising in TRAC water /hydromorphology
- Integration of hydromorphology issues and economics

Key messages

- Economics is at the heart of the WFD
- Hydromorphology raises specific economic issues which we need to be aware of
- *In Theory* - The approaches for CEA and DCA can handle these issues. There is a *priori* no need for anything additional.
- *In Practice* - Need to test this and integrate hydromorphological elements with economic analysis

Economics and WFD

- Economic analysis of water use – *Art 5*
- Information for picking cost-effective combinations of measures - *CEA*
- Information for setting alternative objectives - *DCA*
- Decide on adequacy or otherwise of cost-recovery arrangements - *Ongoing*

CRP

- Collaborative Research Programme on River Basin Management Planning Economics
- 15 collaborators
- 6 Projects
- 4 years
- 1 aim – cost-effective, even-handed and proportionate implementation of the directive

Economic issues from hydromorphology

Lessons from

*Scoping of Economic Impacts and Issues in
Transitional and Coastal Waters*

Defra/PLA (2005)

[http://www.defra.gov.uk/environment/water/
wfd/economics/index.htm](http://www.defra.gov.uk/environment/water/wfd/economics/index.htm)

Approach

- Stakeholder based scoping study involving representatives from
 - Ports...harbours and dredging...recreational boating...shipping...aggregate extraction...marine renewables...flood defence...coast protection...fisheries and shellfisheries

Background

- 85% coastal and 98% transitional “at risk” or “probably at risk” RBC1
- Wide range of measures, many actors and “diffuse” regulation – CRP Project 1
- Different ecological processes
- Limited coverage by pilot/case study analysis so far

Measures

- Study identified 200 combinations of measures/mechanisms
- 30% could be done via voluntary action by the activities themselves
- 55% would require/involve regulatory activity
 - 10% by EA
 - 45% by “co-deliverers”
- ...MCEU, MCA, Port and Harbour authorities, ODPM, DTI, Local Authorities....

Economic Issues

- Economic importance of activities
- Level playing field
- Modal shift
- Costs of new development
- Cost of measures and affordability
- Polluter pays principle/funding

Importance of activities



Issue (esp fisheries, boating)

- Need to be aware of true value of activities, their “value added” and supply chain dependencies

Addressed by

- CEA/DCA accounts for financial and economic cost of measures
- CEA/DCA includes appraisal of wider economic costs

Level playing field



Issue (esp. ports, dredging)

- UK implementation may create a competitive disadvantage

Addressed by

- CIS activity on hydromorphology/intercalibration
- Consistency in methods through CIS
- Accounting for wider costs/economic impacts
- Sectoral approach to disproportionate costs

Modal shift



Issue (esp. shipping, navigation)

- Lack of joined up policy appraisal leading to unrecognised effects on sustainable transport

Addressed by

- Accounting for non-water environment costs and benefits within CEA
- Plans will be accompanied by a separate SEA

Costs of new development



Issue (esp. ports)

- Additional premium on development costs reduces development activity

Addressed by

- Accounting for the baseline – what would happen anyway
- Accounting for all costs in CEA (inc wider economic costs and transfers)
- C'ion activity on Art 4.7

Costs and affordability



Issue (esp. ships, ports, dredging)

- High cost of some technical solutions
- High uncertainty about costs and effectiveness
- Affordability, irrespective of CEA/DCA

Addressed by:

- Incorporation of uncertainty explicitly into costs
- CEA includes wider costs
- DCA is wider than a national CBA includes consideration of affordability (sectoral) and cumulative burden

Polluter pays principle/funding



Issue (esp. dredging, flood, shellfisheries)

- Where original polluter/risk creator can not be found (sediments, flood defences)
- Absence of cost recovery/funding mechanism
- Existing inequities/non-adherence to PPP

Addressed by:

- Clear identification of who pays, who benefits and who causes damage to facilitate decision making
- Accounting for enforcement/hidden costs of making the polluter pay
- Accounting for the historic burden of costs within the CEA
- Assessing cost-recovery and funding issues

Issues - Summary

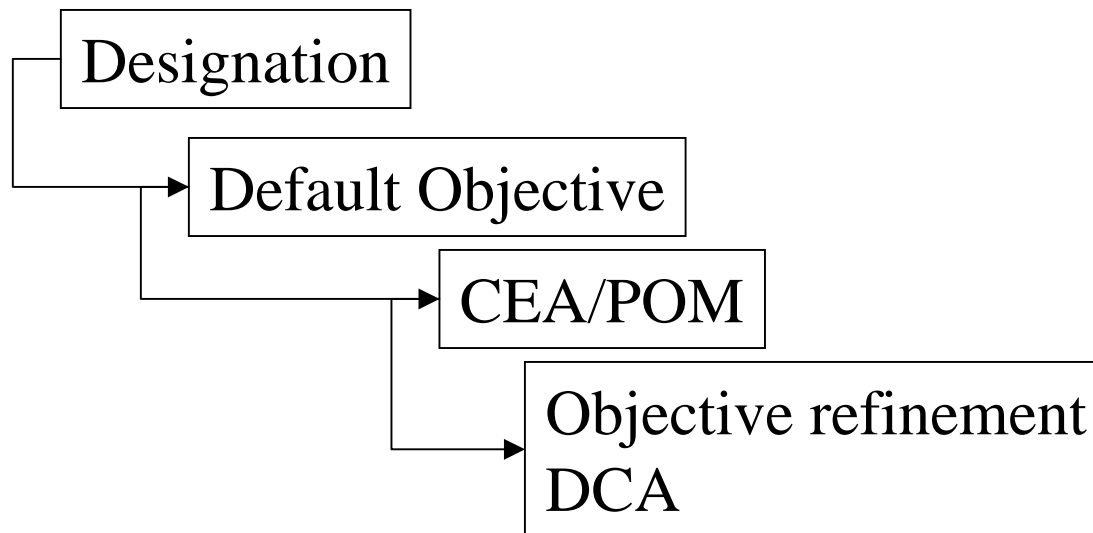
- In theory can be dealt with by the CEA/DCA methodology
- In practice need to test this and better integrate hydromorphology with economics
 - CEA/DCA pilots
 - HMWB designation

Testing – CEA/DCA Pilots

- Previous pilots have looked at hydromorph issues
- Further piloting of hydromorph issues in TRAC pilot and DCA pilots
- TRAC pilot
 - Humber Estuary, Hamble Estuary, Liverpool Bay etc.
 - ABPmer – technical expertise
 - Oxera – economics
 - Due to report in December 2005

Integration – HMWB designation

- Designation, POM development and objective setting are currently separate processes



Overlapping issues

HMWB

- What morphological change?
- What restoration measures/are there technically feasible alternatives?
- Whats the most cost-effective alternative?
- Are alternative measures disproportionately costly?
- Designate as HMWB examine alt objectives

Non HMWB

- What pressures (chemical, physical etc.)?
- What measures, alternative measures/instruments?
- Whats the most cost-effective alternative?
- Are measures disproportionately costly?
- Examine alt objectives

Other issues

- Many HMWB are also heavily impacted by water quality pressures – separate process might not pick up links
- For cost-effective action restoration and water quality improvements must be coordinated
- Timing – only have two years to do this, little room for sequential working

To sum up

- Yes, there are economics/hydromorph issues
- Yes, they can be dealt with in the economics methods
- Yes, we need more testing
- Yes, we need to integrate hydromorph and economics more



Questions?