

# Envecon 2008: Session on Water

Dr Jonathan Fisher

Economics Policy Manager

Environment Agency

# Outline

Context for the session + intro to presentations

Options Appraisal process

Historical resume of recent periodic reviews of water industry and work on WFD

Challenges for applying CBA to aid decision-making

# Stages of an Options Appraisal

Identify problem (or opportunity).

- Assess scale, nature and significance of risks of environmental impacts

Specify objectives (re improved outcomes) and appraisal criteria

Identify and appraise options for tackling the problem. This involves

- a) Assessing the costs of the options
- b) Identifying key trade offs
- c) Assessing and valuing the benefits of the options

Compare the costs and benefits to inform decisions on best option

Evaluate implementation wrt actual costs, benefits and effectiveness  
and, if significant residual problems remain, then reiteration

# Valuation of Environmental Benefits: Historical Review of recent experience

experience with reviews of the environment Programme of the water industry

PR99 – 700 MCAs

PR04:

- Cost-effectiveness for statutory; CBA for non-statutory
- CBAs of 437 non-statutory schemes and overall programme

=> Proposed programme with 80% of benefits at 37% of costs.

- Deferred schemes costs > £1bn
- Benefits = £200m – 400m pa (£3.1bn – 5.6bn)

WFD – CRP £1.8m over 4 years

- Cost analysis in pCEA
- New benefits valuation survey (NERA)

# Challenges for Applying CBA to aid environmental decision-making

Equity vs efficiency – Sugden disaggregation

Individual vs collective values

Need to clearly specify the impacts without double counting or omissions

**Need clear descriptions of the changes in the risks of the environmental impacts in question**

Sound estimation of the number of beneficiaries

Allow for availability of substitutes

**Assess scheme as part of an overall programme**

**Allow for income constraints**

Need representative sample of beneficiaries

Clear presentation of findings, methods and assumptions

## How to cope *adequately with all challenges*

Even best practice CBA techniques cannot cover perfectly all challenges

- Valuation surveys costly and take much time

Beware of perfect solutions to just one challenge which exacerbate other challenges

- Eg Choice experiment surveys: Concerns re whether adequately inform about diverse impacts

Alternatives to CBA fare worse

- Deliberative techniques only cover small sample (?unrepresentative) and may not take account of

# Concluding issues on way forward for CBA

Get away from fixation with neo-classical economics paradigms and straw men arguments.

Seek practicable method to cope *adequately with all challenges* by:

- Apply qualitative, quantitative and monetary building blocks
- Tailor method for particular context and situation
- Focus group elicitation followed up by CV survey of representative sample (as in WFD survey)
- Cover a whole programme of environmental improvements
- Extra emphasis + qu on opportunity costs in terms of foregone goods/services for their stated sums – use this as a validating cross check - within the survey (not after)