



A GUIDE TO

OPTIONS APPRAISAL

**AT THE NATIONAL CENTRE FOR RISK ANALYSIS AND
OPTIONS APPRAISAL**



**ENVIRONMENT
AGENCY**



1 THE NATIONAL CENTRE

The National Centre for Risk Analysis and Options Appraisal specifically aims to assess risks to the environment and provide guidance on appropriate techniques to appraise options for their reduction so that society and industry bear a justifiable cost, and the Agency maximises its contribution to sustainable development. A key component of this process is informing Agency and other decision-makers through robust assessments of technologies and environmental, economic and societal assessment of options.



Potential Options



2 THE ROLE OF THE NATIONAL CENTRE



The Options Appraisal team within the National Centre aims to use and enhance its specialist expertise to develop a toolkit and to guide and train the Agency to improve its decision-making capability. It develops new techniques for comparing and appraising options and provides guidance and training. The range of activities with which the team is tasked is varied and covers areas such as environmental impact assessment, business and environmental economics, environmental developments and technology assessment. The Centre was the first part of the Agency to appoint a specialist to advise on social aspects of the environment and now takes the lead in this area.



3 MAIN TECHNIQUES

It is important to use the most appropriate techniques for the issue under consideration:-

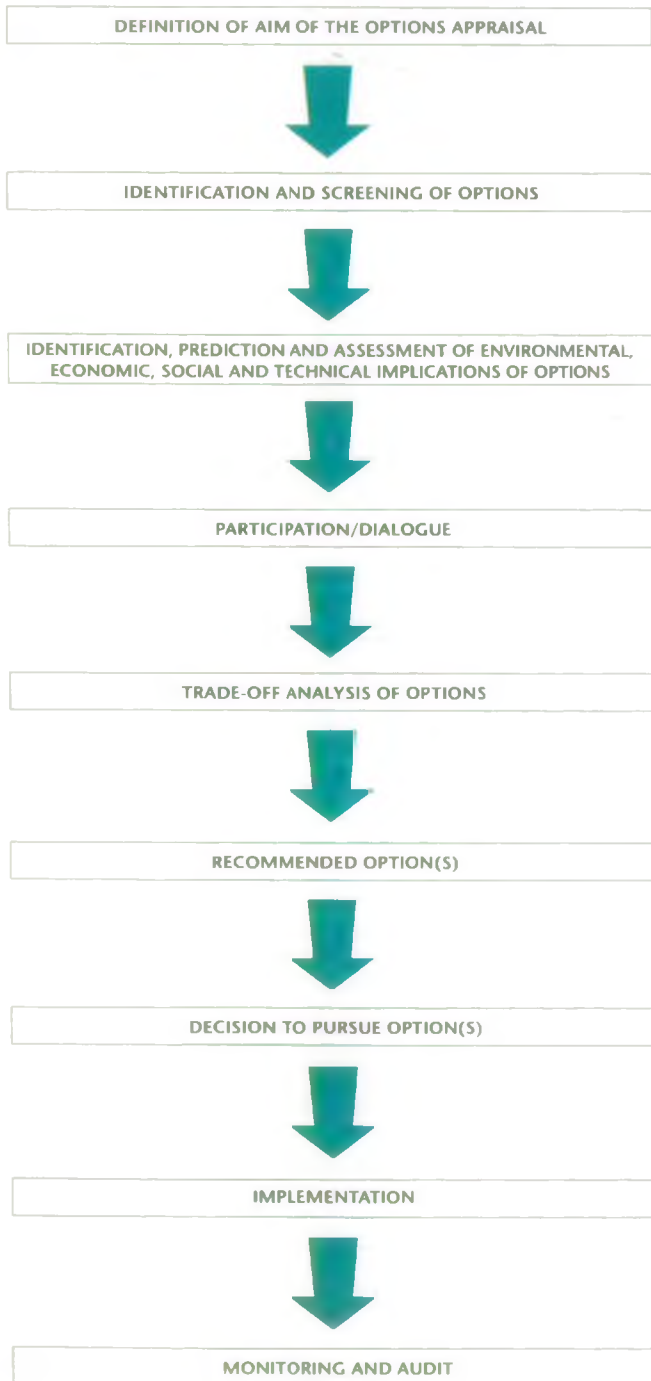
Identification and screening of options - this involves techniques such as technology assessment and public perception studies

Identification, prediction and assessment of environmental, economic, social and technical implications - can be achieved using techniques such as EIA, technology feasibility studies, social impact assessment, monetary valuation of environmental benefits (eg contingent valuation, stated preference), implicit valuation, economic impact analysis and environmental capital approach.

Participation and dialogue - this should be implicit to all steps in the Options Appraisal process and involves techniques such as risk communication, stakeholder analysis and stakeholder dialogue.

Trade-off analysis of options - analysis of costs and benefits, Best Practicable Environmental Option, multi-criteria analysis/multiple attribute techniques and sustainability appraisal are all techniques used in different circumstances to achieve this.

The process of Options Appraisal is inevitably iterative from start to finish.



4 FUTURE DEVELOPMENTS

Whilst the National Centre has made significant advances in the development and application of existing tools there are considerable opportunities for it to develop new techniques to support decision-making throughout the Agency. The Options Appraisal process also needs to provide opportunities for different viewpoints to be heard.

Acid waters in Wales: appraisal of strategic options.

Options/ Components	Sensitivity										Potential Risks										Benefit Opportunities									
	FE	TE	WQ	FO	AG	HT	AM	LP	IN	Environmental										PO	EC	FE	TE	WQ	FO	AG	HT	AM	LP	IN
	FE	TE	WQ	FO	AG	HT	AM	LP	IN	FE	TE	WQ	FO	AG	HT	AM	LP	IN	PO	EC	FE	TE	WQ	FO	AG	HT	AM	LP	IN	
S reduction																														
SO ₂ reduction	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
N reduction																														
NO _x stationary	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
NO _x mobile	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Ammonia NH ₃	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Land use																														
Restrictions on new forestry	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Adopt UK standards for existing forestry	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Agri-environment	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Liming																														
Direct Dosing	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Source-area	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Agricultural catchment	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

- Low
- Medium
- High

- FE** Fish and aquatic ecology
- TE** Terrestrial ecology
- WQ** Water Quality
- FO** Forestry
- AG** Agriculture
- HT** Community impacts - Health
- AM** Community impacts - Amenity
- LP** Landscape and planning issues
- IN** Industry
- PO** Political
- EC** Economic costs to society

A conceptual challenge for Options Appraisal is how to analyse trade-offs between options that reduce the pressure on the environment, options for remediating the state of the environment and the importance given to public opinion. At the earliest stage it is important to determine suitable criteria for subsequent trade-off analysis such as social acceptability, introduction of secondary impacts, costs, the sustainable nature of technology and the level of risk reduction and environmental protection offered. There are particular challenges for the methods of trade-off analysis which range from simple checklists to more complex approaches involving ranking and scoring, scaling and also weighting.

5 CHECKLIST

The checklist below shows those areas of work where the National Centre is active:-

	CENTRE ACTIVITY	CENTRE ADVISES
Developing new techniques for the comparison of options	✓	
Guidance and training on the use of Options Appraisal techniques	✓	
Appraisal of Regional and Area projects, plans, programmes and policies		✓
Appraisal of certain projects, plans, programmes and policies with national strategic implications	✓	
Agency lead on social issues	✓	
Supporting the Environmental Strategy	✓	
Use of Options Appraisal techniques for authorisation and licensing		✓
Other routine application of Options Appraisal techniques		✓

Contact:

Dr. Andrew Brookes

Options Appraisal Manager

National Centre for Risk Analysis and Options Appraisal

Tel: 0171 664 6818 Fax: 0171 664 6911

E-mail: andrew.brookes@environment-agency.gov.uk

ENVIRONMENT AGENCY



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MANAGEMENT AND CONTACTS:

The Environment Agency delivers a service to its customers, with the emphasis on authority and accountability at the most local level possible. It aims to be cost-effective and efficient and to offer the best service and value for money.

Head Office is responsible for overall policy and relationships with national bodies including Government.

Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol BS32 4UD
Tel: 01454 624 400 Fax: 01454 624 409

Internet World Wide Web www.environment-agency.gov.uk
www.environment-agency.wales.gov.uk



ENVIRONMENT AGENCY

NATIONAL CENTRE FOR RISK ANALYSIS AND OPTIONS APPRAISAL

Steel House, 11 Tothill Street, London SW1H 9NF
Tel: 0171 664 6818 GTN: 7 10 6818 Fax: 0171 664 6911.

Dr. Andrew Brookes
Options Appraisal Manager

Tel: 0171 664 6818 Email: andrew.brookes@environment-agency.gov.uk

Help Desk

Tel: 0171 664 6896 Fax: 0171 664 6911

NATIONAL LIBRARY & INFORMATION SERVICE

THAMES REGION

Kings Meadow House, Kings Meadow Road, Reading RG1 8DQ

ENVIRONMENT AGENCY REGIONAL OFFICES

ANGLIAN

Kingfisher House
Goldhay Way
Orton Goldhay
Peterborough PE2 5ZR
Tel: 01733 371 811
Fax: 01733 231 840

SOUTHERN

Guildbourne House
Chatsworth Road
Worthing
West Sussex BN11 1LD
Tel: 01903 832 000
Fax: 01903 821 832

MIDLANDS

Sapphire East
550 Streetsbrook Road
Solihull B91 1QT
Tel: 0121 711 2324
Fax: 0121 711 5824

SOUTH WEST

Manley House
Kestrel Way
Exeter EX2 7LQ
Tel: 01392 444 000
Fax: 01392 444 238

NORTH EAST

Rivers House
21 Park Square South
Leeds LS1 2QC
Tel: 0113 244 0191
Fax: 0113 246 1889

THAMES

Kings Meadow House
Kings Meadow Road
Reading RG1 8DQ
Tel: 0118 953 5000
Fax: 0118 950 0388

NORTH WEST

Richard Fairclough House
Knutsford Road
Warrington WA4 1HG
Tel: 01925 653 999
Fax: 01925 415 961

WALES

Rivers House/Plas-yr-Afon
St Mellons Business Park
St Mellons
Cardiff CF3 0LT
Tel: 01222 770 088
Fax: 01222 798 555



For general enquiries please call your local Environment Agency office. If you are unsure who to contact, or which is your local office, please call our general enquiry line.

ENVIRONMENT AGENCY GENERAL ENQUIRY LINE

0645 333 111

The 24-hour emergency hotline number for reporting all environmental incidents relating to air, land and water.

ENVIRONMENT AGENCY EMERGENCY HOTLINE

0800 80 70 60



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