



UKCIP Adaptation Wizard

Extract from Climate adaptation: Risk, uncertainty & decision-making

Summary of tools and techniques

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Willows, R.I. and Connell, R.K. (eds). 2003. Climate adaptation: Risk, uncertainty and decision-making. UKCIP Technical report, UKCIP, Oxford

www.ukcip.org.uk/wordpress/wp-content/PDFs/Risk.pdf

This appendix provides a brief summary of the tools and techniques mentioned in Parts 1 and 2. The table below summarises which tools can be used at each stage of the framework. The range of tools and techniques is not comprehensive, neither will all the tools be equally useful. A UKCIP web-based resource provides more detailed descriptions of the tools and techniques. The web-based resource will allow new tools to be identified, and updated information on the relevance and utility of these tools to climate change risk assessments to be provided to stakeholders and other users.

www.ukcip.org.uk/wizard/

Outline of tools described and usage by framework stage						
Tool	Could tool be appropriate for Stage ...					
	1 Identify problem and objectives	2 Establish decision-making criteria	3 Assess risk	4 Identify options	5 Appraise options	6 Make decision
AIDA	yes	yes		yes		
Brainstorming	yes	yes	yes	yes		
Consultation exercises	yes	yes	yes	yes	yes	
Focus groups	yes	yes		yes	yes	
Free-form gaming	yes			yes	yes	
Policy exercise	yes			yes	yes	yes
Problem-mapping tools	yes	yes	yes	yes		
Bayesian methods			yes		yes	
Checklists			yes	yes		
Decision/probability trees			yes			
Expert judgement and elicitation			yes			
Fault/event trees			yes			
Climate change scenarios			yes			
Climate typing			yes			
Cross-impact analysis			yes		yes	
Deliberate imprecision			yes			yes
Development of sophisticated modelling tools			yes			
Downscaling techniques			yes			
Interval analysis			yes			
Markov chain modelling			yes			
Monte Carlo techniques			yes			
Modelling tools			yes			
Pedigree analysis			yes			yes
Process influence diagrams			yes			
Scenarios analysis			yes		yes	
Uncertainty radial charts			yes			
Screening				yes	yes	

Outline of tools described and usage by framework stage <i>continued</i>						
Tool	Could tool be appropriate for Stage ...					
	1 Identify problem and objectives	2 Establish decision-making criteria	3 Assess risk	4 Identify options	5 Appraise options	6 Make decision
Contingent valuation					yes	
Cost-effectiveness analysis					yes	
Cost-benefit analysis					yes	
Decision analysis					yes	
Decision conferencing					yes	
Discounting					yes	
Environmental impact assessment					yes	
Expected value					yes	yes
Financial analysis					yes	
Fixed rule-based fuzzy logic					yes	
Minimax, Maximin, Maximax and Regret					yes	yes
Multi-criteria analysis (scoring and weighting)					yes	
Pairwise comparison					yes	
Partial cost-benefit analysis					yes	
Preference scales					yes	
Ranking/dominance analysis					yes	
Risk-risk analysis					yes	
Sieve mapping					yes	
Hedging and flexing						yes
Portfolio analysis						yes
Sensitivity analysis						yes
Robustness analysis						yes
Ranges and intervals						yes