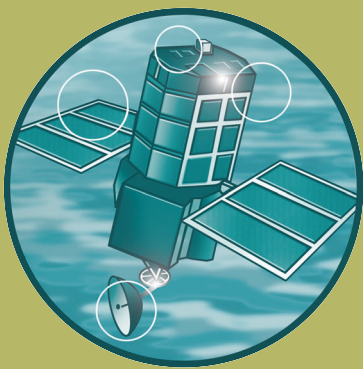


# Social Justice in the Context of Flood and Coastal Erosion Risk Management: A Review of Policy and Practice

## Appendix 1: Coding Framework for National Level Document Analysis

R&D Project Record FD2605/PR





# Appendices

## Appendix 1 Coding framework for national level document analysis

### CODING FRAMEWORK

#### OVERVIEW

Policy Timeframe	
Document Timeframe	
Geographic scale	
Type of floods included	
<i>Futures considered</i>	

#### C. PART ONE: GENERAL FAIRNESS EVALUATION

##### 1. What is a fair decision process over space and time?

Evidence of principles of 'fair' decision making? (equity, rights, needs, equality of opportunity, participation, entitlement, desert, safety, precaution, protecting most vulnerable)

Which stakeholders are responsible for making decisions?

Which stakeholders are expected to have access to the decision-making process?

What is the formal division of responsibility between stakeholders?

What adaptation options are regarded as important for FCERM?

Who decides the range of legitimate options?

Who has access to these options – evidence of barriers/incentives/thresholds?

What decisions are regarded as most appropriate (reactive/proactive/inactive)?

##### 2. What is a 'fair' distribution of resources over space and time?

Who is expected to pay for each adaptation option?

Who is expected to benefit from each adaptation option?

What criteria/principles are used to distribute resources?

What is the distribution of resources between adaptation options?

What is the distribution of resources between stakeholders?

### **3. What is the 'fair' outcome over space and time?**

What adaptation options are preferred?

What principles are used to determine 'fair' outcomes?

What 'level' of risk is regarded as acceptable – illustration of thresholds for each adaptation option?

Who determines the acceptable 'level' of risk?

### **4. Who should bear the risk responsibility over space and time?**

What is the responsibility of individuals/households?

What is the responsibility of community/regional stakeholders?

What is the responsibility of the state?

What is the responsibility of non-state actors?

Who decides on the distribution of responsibility?

What criteria/principles are used in the assessment of risk responsibility?

## **D. PART TWO: EVALUATION OF THE SOCIAL JUSTICE MODEL(S) EMBEDDED IN CURRENT/PROPOSED POLICY**

Having provided an overview of the general principles of fairness embedded in current/proposed research, part two focuses on providing a more detailed analysis of these principles. Therefore, where evidence is found in the policy documents of principles based on equality of treatment, targeting the most vulnerable, meeting basic human rights, meeting basic needs or maximising utility – further analysis will be required. If other principles are uncovered then a similar detailed analysis will be required.

Key questions in this process are then:

### **1. Equality of treatment**

Do all those at risk have an equal opportunity to access the decision-making process?

- Evidence?
- What are the general principles?
- How are these principles woven into policy processes?
- Any thresholds?

- Any potential barriers?

Do all those at risk have an equal opportunity of accessing the resources available?

- Evidence?
- What are the general principles?
- How are these principles woven into policy processes?
- Any thresholds?
- Any potential barriers?

Do all those at risk have an equal opportunity of having their risk managed by the state?

- Evidence?
- What are the general principles?
- How are these principles woven into policy processes?
- Any thresholds?
- Any potential barriers?

Do all those at risk have an equal opportunity to benefit from the adaptation options currently available?

- Evidence?
- What are the general principles?
- How are these principles woven into policy processes?
- Any thresholds?
- Any potential barriers?

## **2. Targeting the 'most' vulnerable**

Does national policy actively seek a policy process aimed at targeting the most vulnerable?

- Who are the 'most' vulnerable?
- How are they targeted?
- How are vulnerability principles articulated?
- What is the process for including vulnerability into decision-making?
- Are there any thresholds for determining vulnerability?
- What are the potential barriers for a vulnerability-focused policy?

What adaptation options are specifically targeted at those most vulnerable to flood and coastal erosion?

- Which options?
- Are these geographically determined?
- How do they target the 'most vulnerable'?
- Who do they target?
- Thresholds?
- Barriers?

What resources are specifically targeted to the most vulnerable?

- Who are they targeted at?
- What is the process by which they are distributed?
- Is the outcome distribution geographically determined?
- Which stakeholders determine who gets what, how and when?
- Is there evidence of any thresholds?
- Is there evidence of any potential barriers?

### 3. **Maintaining individual rights**

Which rights are regarded as significant?

- In general policy
- In policy/guidance specific to each adaptation option:
  - o Flood warnings and awareness raising
  - o Structural defence
  - o Insurance
  - o Emergency management
  - o Homeowner adaptation
  - o Development control/planning

How are these articulated?

- In general policy
- In policy/guidance specific to each adaptation option:
  - o Flood warnings and awareness raising
  - o Structural defence
  - o Insurance
  - o Emergency management
  - o Homeowner adaptation
  - o Development control/planning

Whose rights are articulated?

- In general policy
- In policy/guidance specific to each adaptation option:
  - o Flood warnings and awareness raising
  - o Structural defence
  - o Insurance
  - o Emergency management
  - o Homeowner adaptation
  - o Development control/planning

How are these safeguarded in policy/guidance?

- In general policy
- In policy/guidance specific to each adaptation option:
  - o Flood warnings and awareness raising
  - o Structural defence
  - o Insurance
  - o Emergency management
  - o Homeowner adaptation
  - o Development control/planning

#### 4. Minimum needs of society

Which needs are regarded as significant?

- In general policy
- In policy/guidance specific to each adaptation option:
  - o Flood warnings and awareness raising
  - o Structural defence
  - o Insurance
  - o Emergency management
  - o Homeowner adaptation
  - o Development control/planning

Evidence of minimum needs of society/individuals?

- In general policy
- In policy/guidance specific to each adaptation option:
  - o Flood warnings and awareness raising
  - o Structural defence
  - o Insurance
  - o Emergency management
  - o Homeowner adaptation
  - o Development control/planning

How are needs articulated?

- In general policy
- In policy/guidance specific to each adaptation option:
  - o Flood warnings and awareness raising
  - o Structural defence
  - o Insurance
  - o Emergency management
  - o Homeowner adaptation
  - o Development control/planning

Whose needs are articulated?

- In general policy
- In policy/guidance specific to each adaptation option:
  - o Flood warnings and awareness raising
  - o Structural defence
  - o Insurance
  - o Emergency management
  - o Homeowner adaptation
  - o Development control/planning

How are these safeguarded in policy/guidance?

- In general policy

- In policy/guidance specific to each adaptation option:
  - o Flood warnings and awareness raising
  - o Structural defence
  - o Insurance
  - o Emergency management
  - o Homeowner adaptation
  - o Development control/planning

## 5. Maximum utility

Does national policy actively seek a policy process aimed at securing the greatest benefits per unit inputted?

- Who are the beneficiaries of this process?
- How are efficiency principles articulated?
- What benefits are considered?
- What is the process for including maximum utility into decision-making
- Are there any thresholds for determining efficiency?
- What are the potential barriers to a maximum utility focused policy?

What adaptation options are specifically concerned with maximum utility?

- Which options?
- Are these geographically determined?
- Who are the beneficiaries?
- Thresholds?
- Barriers?

Is funding directed to the greatest benefits?

- What are the underlying principles?
- Who benefits?
- How do they benefit?
- Thresholds?
- Barriers?



## Appendix 2 Round Table Discussion Agenda

Arrive coffee, tea

Introductions

Introduction by Edmund

We are interested in participants' views as stakeholders of the fairness of FCERM today. And on how, if at all, participants think that policy and practice could or should change to become fairer.

1.
  - a) Overall, do you think that FCERM is fair today?
    - Why do you think it is fair/unfair?
  - b) In your view, should FCERM be changed to make it fairer?
    - Why?
    - How?
  - c) What do you think are the main fairness issues in FCERM today?
    - Intergenerational equity?
    - Coasts vs. rivers?
    - Urban vs. rural?
    - Fairness between FCERM options?
    - Fairness between different types of flooding e.g. steep flashy catchments, groundwater flooding?
  - d) What do you think are the main barriers to implementing fair FCERM?
  
2. Coastal flooding and erosion management (CF/EM)
  - a)
    - (i) Do you think that the decision processes for CF/EM are fair today?
      - Why?
      - How?
    - (ii) What should be the direction of change in policy (if any) as you see it?
      - Why?
  - b)
    - (i) Do you think that the distribution of resources for CF/EM is fair today?
      - Why?
      - How?
    - (ii) What should be the direction of change in policy (if any) as you see it?
      - Why?
  - c)
    - (i) Do you think that the outcomes of CF/EM are fair today?
      - Why?
      - How?

- (ii) What should be the direction of change in policy (if any) as you see it?
  - Why?
- d) (i) For CF/EM, what is it 'fair' to expect of:
  - Individuals/householders/property owners
  - Community/ regional stakeholders
  - The state/non state actors
- (ii) Why?

### 3. Flood defence and asset management (non coastal) (FD/AM)

- a) (i) Do you think that the decision processes for FD/AM are fair today?
  - Why?
  - How?
- (ii) What should be the direction of change in policy (if any) as you see it?
  - Why?
- b) (i) Do you think that the distribution of resources for FD/AM is fair today?
  - Why?
  - How?
- (ii) What should be the direction of change in policy (if any) as you see it?
  - Why?
- c) (i) Do you think that the outcomes of FD/AM are fair today?
  - Why?
  - How?
- (ii) What should be the direction of change in policy FD/AM as you see it?
  - Why?
- d) (i) For FD/AM, what is it 'fair' to expect of:
  - Individuals/householders/property owners
  - Community/ regional stakeholders
  - The state/non state actors
- (ii) Why?

### 4. Spatial planning and development control (SP/DC)

- a) (i) Do you think that the decision processes for SP/DC are fair today?
  - Why?
  - How?
- (ii) What should be the direction of change in policy (if any) as you see it?
  - Why?

- b) (i) Do you think that the distribution of resources for SP/DC is fair today?
  - Why?
  - How?
 (ii) What should be the direction of change in policy (if any) as you see it?
  - Why?
- c) (i) Do you think that the outcomes of SP/DC are fair today?
  - Why?
  - How?
 (ii) What should be the direction of change in policy (if any) as you see it?
  - Why?
- d) (i) For SP/DC, what is it 'fair' to expect of:
  - Individuals/householders/property owners
  - Community/ regional stakeholders
  - The state/non state actors
 (ii) Why?

5. Flood forecasting, warning and emergency response (FFW/ER)

- a) (i) Do you think that the decision processes for FFW/ER are fair today?
  - Why?
  - How?
 (ii) What should be the direction of change in policy (if any) as you see it?
  - Why?
- b) (i) Do you think that the distribution of resources for FFW/ER is fair today?
  - Why?
  - How?
 (ii) What should be the direction of change in policy (if any) as you see it?
  - Why?
- c) (i) Do you think that the outcomes of FFW/ER are fair today?
  - Why?
  - How?
 (ii) What should be the direction of change in policy (if any) as you see it?
  - Why?
- d) (i) For FFW/ER, what is it 'fair' to expect of:
  - Individuals/householders/property owners
  - Community/ regional stakeholders
  - The state/non state actors

(ii) Why?

6. Promoting resistance and resilience (RR) in existing flood plain property.

- a) (i) Do you think that the decision processes for RR are fair today?  
- Why?  
- How?
- (ii) What should be the direction of change in policy (if any) as you see it?  
- Why?
- b) (i) Do you think that the distribution of resources for RR is fair today?  
- Why?  
- How?
- (ii) What should be the direction of change in policy (if any) as you see it?  
- Why?
- c) (i) Do you think that the outcomes of RR are fair today?  
- Why?  
- How?
- (ii) What should be the direction of change in policy (if any) as you see it?  
- Why?
- d) (i) For RR, what is it 'fair' to expect of:

SUMMARY OVERVIEW : FCERM options and Social Justice models

- Coastal flooding and erosion management
- Flood defence schemes and asset management
- Spatial planning and development control
- Flood forecasting, warning and emergency response
- Promoting resistance and resilience in existing flood plain property

## Appendix 3 Outcome measures consultation report

### **Review of responses to, and content of, Defra's consultation on flood and coastal erosion risk management Outcome Measures and Prioritisation Approaches in the context of social justice**

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*April 23rd 2007*

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# Review of responses to, and content of, Defra's consultation on flood and coastal erosion risk management outcome measures and prioritisation approaches in the context of social justice

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FHRC, Middlesex University  
*April 23rd 2007*

## 1. Objectives and methods

As part of the 'social justice' project, FHRC were asked to review responses to, and content of Defra's consultation on outcome measures and prioritisation. This paper reports on this exercise.

Our review is based on the 77 written responses received by Defra from stakeholders by the extended closing date for consultation on the Defra document 'Consultation on Outcome Measures and Prioritisation' approaches for flood and coastal erosion risk management.

In the review, attention was focused on a more limited number (22) selected response documents that mentioned social issues, social justice and the outcome measure concerned with vulnerability, SD4. However, it must be noted that the responses were heavily structured by the 19 consultation questions which stakeholders were asked to address. None of these questions was explicitly concerned with social justice in relation to the Outcome Measures (OM) and prioritisation. This review also draws on attendance by two FHRC research team members at a consultation workshop held by Defra for over 100 participants to consider the proposals.

A qualitative approach has been adopted for this review. The review aims to present the nature and range of responses in a social justice context. A numerical analysis of the responses has not been undertaken. The aim was not to duplicate the analysis that will be undertaken by Defra but to draw out and illuminate 'fairness' issues identified in the responses. The quotations given are illustrative rather than exhaustive except in the case of mentions of SD4 on vulnerability where the intention was to cover all the material presented.

In the conclusions sections, below, Flood Hazard Research Centre (FHRC) presents its first ideas on social justice issues as represented in the Outcome Measures and Prioritisation consultation document and in the responses to it. More consideration will be given to these issues when the consultation on the appraisal methodology is complete, so as to give a more rounded analysis of this matter.

It is important to consider social justice or 'fairness' in the responses to the Outcome Measures and Prioritisation in relation to:

- Both the **processes** proposed and their perceived likely **outcomes**;
- Carefully selected and well developed **models** of social justice (i.e. "fairness").

Social justice is a complex and contested concept that depends on the moral claims that are invoked and the principles that are applied. These are often implicit rather than explicit. Here, we intend to use a simplified set of models or conceptions of 'fairness' as the basis for the analysis of the consultation responses to the Outcome Measures and Prioritisation (Table 1).

These conceptions have been distilled from a comprehensive analysis of the social justice literature and a larger set of models (Johnson 2006). The language used to discuss social justice is varied and this can be confusing. Here we are using social justice and 'fairness' as equivalent.

*Table 1*  
*Social justice principles for flood and coastal erosion risk management*

<b>Justice principle</b>	<b>Fairness rule</b>	<b>Meaning for flood risk management</b>
<b>Equality</b> (Process - procedural justice)	All citizens should be treated equally	<i>Process: Every citizen should have the equal opportunity to have their flood risk addressed in the decision processes. Outcome: Resources should be distributed equally in accordance with the risk.</i>
<b>Vulnerability</b> (distributional justice)	The vulnerable should be prioritised and the FCERM options chosen should be those that favour helping most the worst-off.	<i>Process: Positive discrimination rules in the decision process in favour of those regarded as the 'most vulnerable'. Outcome: Resources should be targeted to those most vulnerable to flooding or erosion (or those that are determined to be 'most' needy).</i>
<b>Utility</b> (distributional justice)	<i>The options chosen should be those that secure the greatest risk reduction per unit of resource input</i>	<i>Process and outcome: Assistance should be provided to those members of society to whom the benefits offer the greatest gain to society (i.e. loss reduction is thereby maximised).</i>

The Outcome Measures and Prioritisation approaches for Flood and Coastal Erosion Risk Management (FCERM) presented in the consultation document appear in FHRC's view to draw on all three principles in part, despite their incompatibility.

The weight attached to each of these principles in FCERM as presented in the Outcome Measures and Prioritisation framework will, as some consultees noted, depend on the levels set for the targets and the detail of the way in which the Outcome Measures and Prioritisation are introduced or implemented.

## 2. Equality

### 2.1 Equality principles of justice

Principles of *procedural* equality and justice (but not equality in outcome), it can be argued, are the core social justice principles, that are and should be, embodied in the proposed Outcome Measures and Prioritisation (i.e. that ‘every citizen should have the equal opportunity to have their flood risk addressed in the decision processes’). The characteristics of procedural equality and justice, have been defined by, among others, Thibaut and Walker, 1975 and Leventhal, 1980 and summarised by Green, 2006. Some key characteristics of procedural justice are shown in Table 2.

Questions asked in the consultation on the Outcome Measures and Prioritisation consultation document that may throw light on consultees’ views on the extent to which the proposals measure up to these requirements for procedural justice are also shown. However incidental comments made by consultees may also represent their thinking on procedural social justice issues.

Defra has sought to embody at least some of these characteristics within its proposals for Outcome Measures and Prioritisation and within the consultation on the proposals. The Consultation document argues that:

‘Outcome Measures will also contribute to the consistency and equity of approach between different types of risk, locations and Operating Authorities.’ (Defra 2006, p.6)

It also notes:

‘The outcomes required by government policies need to be stated in a clear and accessible manner to ensure that they are effectively disseminated and acted upon. The development of new Outcome Measures provides an opportunity to make clear the outcomes expected of policies and funding and to improve consistency between different levels of the strategic framework.’ (Defra 2006, p.6)

It adds:

‘Outcome Measures will provide a framework within which Ministers can explicitly set the balance of the overall programme in a transparent and challengeable form, whilst in any particular area Operating Authorities will have more flexibility to deliver on particular priorities within a suite of targets set on a national basis.’

*Table 2  
Characteristics of Procedural Justice*

<b>Characteristics of Procedural Justice</b>	<b>Consultation questions</b>
A consistent policy process to be applied to all those at risk	Q1, Q9, Q10, Q13, Q14, Q15, Q16, Q17
Neutrality – processes applied in a manner that is unbiased and not subject to political or other influence	Q17
Representativeness – all those affected should be considered in the decision-making	Q2, Q3
Accuracy – procedures that succeed in their own terms and are based on accurate information	
Correctability – the right to appeal	Q6
A clear, transparent and understandable policy and decision making process	Q1-19
Standing – are the interested stakeholders/parties respected as people; do procedures protect the worth and dignity of those involved?	
Equal opportunity to access the decision making processes	Consultation on Q1-19, Q8
Opportunities to participate in deliberations and influence decisions	Consultation on Q1-19, Q8



It is the aspiration that the Outcome Measures together with the funding allocation and the Prioritisation should provide 'a fair and transparent system' although it is also recognised that this is linked to, and will also rely upon, the consistent application of current and future appraisal guidance (Defra 2006, p.7).

## **2.2 Consultation responses**

As Table 2 shows, many of the consultation questions are of relevance to procedural justice. The responses to these questions are being comprehensively analysed by Defra. This review only covers responses in so far as they indicate an awareness of social justice issues and illustrates here using selected responses the procedural justice issues that are highlighted in the consultation.

### **2.2.1 Consistency in national policy and equality of treatment**

#### ***Flooding and coastal erosion***

Q1 'Do you support the use of different Outcome Measure definitions for flooding and coastal erosion within a single framework' raises issues of social justice and equality of treatment: Can coastal erosion with its very different impacts be treated equally with fluvial and coastal flooding or should they be treated as different risks?

This is a difficult issue. For example, North Norfolk District Council and Anglian Coastal Authorities Group have some reservations about the way the differences are interpreted and note:

'Any use made of the OM to make comparisons must be open, clear and transparent.'

CIWEM also recognises the social justice issues and dilemmas involved here:

'CIWEM agrees with the use of different outcome measures for flood and coastal erosion. We believe that this will ensure that the differences in risks such as total irrevocable loss caused by erosion as opposed to flooding where loss or damage are sometimes recoverable. On the other hand, coastal responses may have a longer time frame than possibly seemingly more immediate fluvial responses. It is important however, that they are both considered under the same framework to ensure, consistency, ability to respond consistently to the common threat of climate change and to facilitate an equitable and transparent means of sharing resources and funding between the two.'

The issue of the separation of funding allocations for flooding and coastal erosion (Q9) and the question of the criteria to be used to determine the relative size of the funding allocations for flooding and coastal erosion (Q10) are also highly relevant to procedural justice and equality of treatment. However, an examination of the 22 selected responses suggests that consultees answered these questions without reference to social justice principles and in a practical manner. Defra's analysis will cover the responses to these questions more fully.

#### ***Net costs use in prioritisation***

As Defra notes (2006, p.21) in its consultation document, it is proposed that the net cost to government should be used in the prioritisation in order to encourage beneficiary contributions adding:

'it will be important to ensure that this does not impact on the fairness of the prioritisation system by allowing beneficiaries to "buy their way up" the priority list.'

CIWEM reinforces this point in its response to this question while generally supporting the 'net cost' approach as encouraging third party contributions and multiple-objective projects:

'...it is possible that the net cost to government approach will create opportunities for inequalities of funding distribution, with more well to do areas being able to climb up the prioritisation ladder. This could, in part, be achieved through comparison with the proposed SD4 measure.' (to counteract the 'net cost' effect).

'In this context, in principle, we agree with the use of the net cost to government to normalise competing projects. However, a system check would have to be put in place to prevent any unfair distribution of funds.'

Brighton and Hove City Council had reservations based on fairness concerns:

'Although it appears to be beneficial to use net costs to government and utilise contributions this may not be to the taxpayers advantage'.

The Environment Agency's response draws attention to its work on a contributions policy project to be completed in May 2007 which will inform the Agency's proposals for the treatment of third party funding. The National Flood Forum comments that programme managers and RFDCs urgently need guidance on protocols for joint funding. These would ensure that such funding was treated in a clear and consistent way. Thus, the consultation responses show some awareness of social justice implications of the use of net costs. However, few clear ideas on how to address these issues were presented in the 22 responses examined in detail.

### ***Prioritisation approaches***

The prioritisation approaches have implications for procedural justice in terms of equality of treatment for those at risk and the management of their risk. This could be particularly significant in the Individual OM ranking approach (option 4) in its variants. Under this approach, people at equal risk could have their risk managed in very different ways depending on the ranking of Individual OMs applying to their scheme: the processes and the outcomes could be very different for them.

The CLA also drew attention to possible adverse effects with Option 4:

'Option 4 – could result in an imbalance across the country with focus of – for example – projects delivering environmental benefits in one area alone. This could seek (serve?) to exacerbate the feeling of social injustice.'

### ***P – the use of the household as a measure in P***

The use of the household as the unit of measurement for P (as measured by the number of residential properties) raises issues relating to the equality of treatment of those involved. Using P would mean that the removal from risk of a household/property containing only one person would be given equal weight as compared with a household containing six people.

The rationale for the use of the household/property may be that this is a more available measure and/or for consistency given that other measures, for example, C2, apply to households. This issue is also relevant to SD4 which uses P. This issue did not attract attention at the workshop although it was highlighted there and similarly was not a significant point of comment in the consultation responses.

FHRC, however, reported that it was not happy with this approach.

The Welsh Assembly Government also pointed out:

'In Wales, Welsh Assembly Government (WAG) is currently moving towards a system that is based on people rather than property and multi-criteria analysis rather than property damage'.

### **2.2.2 Consistency, equality of treatment and neutrality**

The consultation document proposes that some form of moderation to the programme should follow the initial numerical ranking according to the prioritisation option used. This would cater for the variety of projects coming forward each year, issues such as urgency, opportunities for external funding, short term changes in policy emphasis and helping to improve the overall delivery of the programme where this could be achieved through minor changes.

Although generally consultees favoured moderation process of this kind (Q17) and some regarded it as essential, commenting that prioritisation scoring would only be an aid to decision making, a moderation process raises issues of equality of treatment and neutrality that were noted in some of the consultation responses. Southern RFDC qualifies its support, recognising the potential unfairness in moderation:

‘In our view, moderation should be a) minimised; [and] b) governed by agreed and well documented ground rules. Careful choice of the prioritisation process (Q16) should reduce the need for moderation as far as possible.’

Brighton and Hove City Council argued:

‘Any need for moderation will be seen as the system not working and being ‘tinkered’ with to provide other outcomes. This then reduces the transparency and accountability of the method, breeds suspicion and reduces cooperation and commitment. However, it is recognised that moderation may be required to reduce the potential for perverse outcomes, But this should be against a set of rules to show that appraisals are not being ‘tinkered with’ to improve their scores.’

The ABI summarised the dilemma:

‘The ABI wishes to see an objective process which uses taxpayers funding to greatest effect, is transparent, equitable, and enables decision makers to be held accountable. We do not wish to see a return to politically driven decisions, which respond to the most recent calamity rather than seeking to address the most urgent risks.’

However we recognise that mechanistic approaches may not always produce the most equitable results. Some flexibility taking a holistic approach, should be accommodated within the prioritisation process.’

### **2.2.3 A clear, transparent and understandable decision making process**

This was perhaps the most pervasive procedural justice concern for the consultees. For many consultees, including Severn Trent Regional Flood Defence Committee (quoted below), transparency and intelligibility were key social justice issues relating to the OM and Prioritisation proposals.

‘Since public money is being spent as a consequence of the OM process, the use of the OMs should be accountable in a way that is comprehensible by the non-expert.’

Suffolk Coastal District Council makes the following general comments:

1. There is a lack of detail in the consultation paper in some important areas.....
2. We believe this lack of detail undermines confidence that the proposals will meet the aim.
3. Similarly without knowing the specific targets for each measure and their scoring and weighting, it is difficult to anticipate how any new system may produce perverse outcomes.

4. Furthermore, unless the new system is easy to understand, we believe that it will not receive public support, especially if the decision-making procedures are not transparent.'

Anglian Coastal Group (19) were highly critical of the material as presented in the consultation document.

'The Group found the document very difficult to follow and understand and even after several reads some of the thinking is not fully clear. In particular, it has proved impossible to make any assessment of the likely effect of the introduction of the Outcome Measures as they apply to scheme prioritisation. Much clearer clarity is needed here or an in-depth and open review after the first full year of operation. Comments are made in response to the questions on transition, but the general feeling of the Group is that the development of these Measures and their consultation has been rushed.'

In response to Q9, Wycombe District Council (42) stresses the need for 'a clear mechanism for making the decision on the proportion of funding allocation for flooding and coastal erosion'

Some comments on prioritisation options also focused on clarity and comprehensibility of the processes. This was a reason for some consultees favouring option 3 (OM Overall Score) over option 4 (Individual OM Ranking); Severn Trent RFDC reported:

'The RDFC felt that "4" was too complex and open to subjectivity and variation and would be hard for layman stakeholders to understand, something not to be ignored when explaining the rationale behind difficult and unpopular decisions.'

The same point is made by the Environment Agency:

'We believe that a significant downside to the Individual Ranking system which is not mentioned in the consultation, is that it will be more difficult for our committees to explain to stakeholders why a project did not secure funding than if the Overall OM Score is used'.

Comments on moderation (Q17 above) also stressed the importance of clear rules and openness and transparency in the moderation process. Wycombe District Council proposed:

'The results of the rankings should be made available on the Defra website together with the moderators reasons for any variance from the prioritisation ranking.'

#### **2.2.4 Representativeness – all forms of flooding**

Equality of treatment or procedural justice requires that all those affected should be considered in the decision making. At least one consultee identified a notable way in which the proposals fail to meet this criterion in that they appear to address fluvial and coastal flood risk but not other forms of flooding that may affect citizens. *Making Space for Water* aims to see flood risk management address all forms of flooding. However, it can be argued that the flooding mechanisms involved are different and currently the data are lacking and that appropriate ways of measuring and including other forms of flooding are still being developed as part of the MSFW research programme.

The Met Office raised this issue:

'In general, my preference would be that all forms of flooding are included in the metrics – fluvial, coastal, pluvial, groundwater, sewer. Otherwise there is a risk that improved scores will be sought through 'clarification' of the boundaries between different types of flooding.'

The Broads Authority identified an urban bias in the OMs.

'A high proportion of the proposed Outcome Measures are urban focussed – linking to economics, numbers of households at risk and emergency planning measures in place.'

However, where schemes are located in rural areas they may not meet many of these proposed Measures.'

This was also a concern for the National Farmers Union and the CLA. The treatment of rural communities was singled out in MSFW as a social justice issue and these consultees did not feel that it was adequately addressed in the Outcome Measures and Prioritisation document.

### **2.2.5 Accuracy**

Equality of treatment or procedural justice requires procedures that succeed in their own terms (i.e. are measuring what they set out to measure and are based on accurate information). The many comments made by consultees on OMs (Q2) can be taken as indicating instances either in which consultees think that the measures should be measuring something different and or in which they could be improved in their own terms (e.g. comments that C2 (Southern RFDC and others) would be a better measure if the number of properties or dwellings rather the number of applications permitted were taken as a measure).

The quality of data and the variability in data as between OMs and as between projects were mentioned by some consultees. CEH points out:

'Overall, the *data* on which the measures are based is subject to many uncertainties, notably in the case of information derived from modelling and from qualitative sources. This cannot be avoided but decisions based on comparisons of measures should bear in mind the overall errors in relation to the differences between the options being assessed.'

Adur District Council noted:

'A particular concern is the need to achieve accuracy of data on coastal erosion risk in order to provide the necessary evidence to allow apportionment to be made between the budgets for coastal erosion and flood defence. We are concerned that use of data from the National Appraisal of Assets and Risk (NAAR) studies and the Coast Protection Survey of England would leave much to be desired.'

### **2.2.6 Correctability – the right of appeal**

The proposals do not include any mechanism for appeal and reconsideration or negotiation by affected parties in relation to the outcomes of the prioritisation process. The moderation process might serve some of the functions (i.e. allowing some reconsideration) but it is unclear to what extent the moderation process would be accessible to stakeholders and those affected and whether stakeholders could call for moderation.

The consultation document, however, does propose an initial review of the new arrangements overall in the second half of 2008, and notes (Defra, 2006, p.14):

'The Outcome Measures will continue to evolve over time, both as a result of improving understanding of flood risk and to reflect changes to society and policy aspirations.'

The review and evolution of the proposed arrangements over time may allow perverse effects, omissions and injustices identified in the overall approach to be rectified.

### **2.2.7 Equal opportunity to access the decision making processes and opportunities to participate in deliberations and influence decisions**

Perhaps the most important element in equality or procedural justice, in addition to a clear, transparent and consistent decision-making process, is access to that process and real opportunities to participate in decision-making.

The Outcome Measures and Prioritisation document presents a high level national framework that will affect projects at the local level. The document itself has been the subject of an open and extensive national consultation exercise that was extended to allow more opportunities for response. This involved a workshop for over a hundred participants and written responses received as part of the formal consultation from 77 consultees.

The national framework involves a series of decisions, and who the key decision makers will be and what will be the opportunities for stakeholder involvement in decision-making, are as yet not entirely clear and will need to be addressed. Some consultation questions, Q8 on targeting and Q17 on moderation of the prioritisation ranking results, ask for consultees views on which stakeholders and how they should be involved.

*Table 3  
Decision in Outcome Measures and Prioritisation*

<b>Key Decisions</b>	<b>Possible key decision makers and stakeholder consultation</b>
Level of national funding for FCERM	<i>Ministers</i>
Level of separate budgets for coastal erosion and flooding	<i>Ministers , Q10 consultation exercise</i>
Type and number of Outcome Measures	<i>Defra, consultation exercise</i>
Definition of Outcome Measures	<i>Defra, consultation exercise</i>
Target setting	<i>Ministers, EA, Q8 on stakeholder input</i>
Prioritisation approach	<i>Defra, consultation exercise</i>
Ranking of projects	<i>EA,</i>
<i>Moderation of prioritisation ranking outcomes</i>	<i>EA, Q17</i>

Analysis of the responses to questions Q8 and Q17 will be covered by Defra. Here the importance of stakeholder involvement in decision making and its salience for social justice are highlighted from the responses.

‘Q8 stakeholder involvement – the weakness of the past and current system has been the remoteness of decision making processes from the people and communities who it should be serving. With the various changes currently being implemented an opportunity presents itself to address this point.’ (Brighton and Hove City Council)

‘The acceptance of the OMs will be heavily dependent on the degree of buy-in to the targets. For this reason, if no other, the target setting process must be transparent.’ (Anglian Coastal Authorities Group)

A key question for fairness is how this top down approach will link up with regional and local FCERM initiatives: SMPs, CFMPs, Strategies, and local schemes in which there is varying provision for stakeholder involvement.

The All Party Parliamentary Group on Coastal and Marine Issues (CoastNet Briefing paper No.3, 2007) defines social justice as involving:

A readily understood and open decision-making process, which...’ (among other things): Sits within a wider policy framework for coastal management, which reflects the wider sustainability context. Involves the community in issue identification and problem-solving.’

It argues that one of the implications of this definition is (among other things)

‘Significantly more resources and expertise dedicated to community engagement’.

## 2.3 Conclusions: first ideas on social justice issues (equality)

There is clearly a concern, articulated by the consultees, that the decision process on outcome measures will not be 'fair' (or any fairer than the current system), such that, for example, the net costs approach will lead to 'queue jumping'. If the targets are set at the national level, this may be 'fair' overall (in that risk can then be reduced where it is greatest, viewed nationally) but this is less likely to be *seen* to be fair because it will inevitably be a process that is remote.

There are other concerns, not least about deciding the balance between erosion and flooding, the quality of data behind the targets and measures, and the nature of flooding being tackled. Whilst we reject the idea that outcome equality is achievable in this FCERM field, we consider that the descriptions so far about *how* decisions will be made does not convince us that procedural equity is necessarily being enhanced in the move towards outcome measures. However, we emphasize that this is an initial judgement, and that much of the 'devil' regarding procedural equality is in the detail of the implementation of the outcome measures system (not least in the detail of its appraisal system).

## 3. Vulnerability

### 3.1 A measure of vulnerability

One of the nine Outcome Measures, SD4, is explicitly reported by Defra as an interim measure to address the key social justice dimension of FRM. Defra states that it will enable the level of flood and coastal erosion risk management for the most deprived communities to be monitored and targeted. The Measure P will be recorded separately for the households in the 1,500 most deprived wards as measured by the index of multiple deprivation, out of a total of 8,414 wards.

The extent to which this Outcome Measure constitutes discrimination in favour of those regarded as most vulnerable in process and outcome or merely monitoring will depend on the level set for the target on this measure. The consultation document notes that 'A draft target will be set by estimating future delivery of the capital programme as it currently stands and adjusted in line with priorities' (Defra 2006, p.A7).

Consultees were asked two questions that were concerned with the scope and definition of the outcome measures. There was no question that directly addressed the SD4 measure:

(Q2) 'Do the Outcome measures cover the right issues and provide sufficient clarity of government objectives?' and (Q4) 'Are the proposed definitions appropriate and if not what changes would you suggest?'

The responses to these questions give an indication as to whether consultees support, reject or have reservations on this approach to 'social justice' and whether they consider that the 'vulnerability' is adequately defined by the measure.

### 3.2 Consultation responses

Most of the consultees did not comment directly on the SD4 measure in their responses. This was also true of the responses in the consultation workshop. This may indicate that either this particular OM was viewed as unimportant or as uncontroversial and thus not worthy of mention.

#### 3.2.1 Criticism of the social justice principle underlying the SD4 measure

JBA Consulting, who are conducting research on vulnerability and flooding for the Environment Agency, are one of few consultees to raise the issue of the *social justice principle* underpinning the SD4.

'It needs to be clear where there is a social justice issue. Research shows that there is not a strong relationship between fluvial flooding and social deprivation, the overall relationship observed in the aggregated data comes entirely from the tidal element. However this is very important as deprived communities often do not have the political voice or access to information and resources to campaign for defence schemes (unlike some less deprived communities).'

Also commenting in relation to perverse effects:

'The defending of deprived communities over others is in itself a social justice issue.'

Severn Trent RFDC too reported:

'There was some criticism of SD4's relevance, particularly in the potential for subjectivity in setting targets. It was accepted that it did introduce a human element to balance the environmental focus, and offered scope for amendment within the OM structure to ensure appropriate balance between various and currently unquantifiable competing pressures.'



ADA also questioned this approach to social justice:

‘The question has been raised as to whether deprived communities should be treated differently to other communities for the purposes of flood risk management? It appeared hard to defend the proposal.’

### **3.2.2 Ward Level application**

Defra notes that although this measure will apply at ward level to start with it will be replaced by Super Output Areas (SOA) in the near future. Their use will not be possible until a more complete base of data has been established (Defra 2006). Several consultees criticised the proposed use of ward level as too insensitive for the purpose.

‘Ward level is a poor indicator especially for fluvial risk. There should be a commitment to research into methods that will allow finer grain resolution while protecting sensitive information. It could be helpful to record affordable housing built in the flood plain.’  
(National Flood Forum, Thames Flood Forum)

Devon County Council is supportive of the SD4 measure but maintains that SOAs are already used as a means of identifying areas of deprivation and also recommends a different proportion be used.

‘The inclusion of deprived communities in the outcome measures is welcome. There are a number of deprived wards in coastal settlements in Devon that require the special attention that this measure supports.’

‘The County Council suggests that the wording is amended to reflect this and that the presence of an SOA within a larger community, whether or not this is coastal, should trigger this criterion. A reasonable proportion to determine deprivation we consider to be 25%. In this way the top 25% of SOA’s nationally could trigger this criterion, if present in a coastal settlement.’

The CLA also makes the point:

‘The main difficulty with this measure is the definition of ‘deprived communities’. Current indicators of deprivation are largely based on local authority boundaries and fail to reflect isolated pockets of deprivation within otherwise affluent communities. This measure needs to reflect those truly in need, including communities blighted by the application of changing coastline policy through SMPs (e.g. the community at Happisburgh)’.

JBA Consulting notes:

‘Longer term: It is unlikely that Super Output Areas (SOAs) will be used to represent indicators of vulnerability to flooding. SOA contain on average 1500 people (depending on the level of data a SOA may include up to 25,00 people). Since vulnerability generally differs according to the social group, a more local spatial scale should be suggested. JBA for the Environment Agency are currently producing a national vulnerability map (made up of several digital layers which provides information on an Output area (approx. 125 households) 100 by 100m grid and individual point scales.’

### **3.2.3 Criticisms of SD4 as a measure of vulnerability/deprivation**

A number of those commenting on the SD4 measure including FHRC, raised issues regarding the adequacy of the Multiple Deprivation index as a measure of ‘flood vulnerability’.

'The Group understands the Measure SD4, but is of the view that its effect on communities at risk will be limited. A further SD Measure is required, perhaps based on quality of life indicators, or the rural deprivation indices currently being developed in Norfolk (Oxford Consultants for Social Inclusion). These could reflect some of the conclusions of the Making Space for Water SD2 project, the Adaptation Tool Kit, in particular, the findings of the report prepared by Dr Sarah Coulthard, Social Justice and FCERM, September 2006. The Group is though clear that further measures of social sustainability are required. (Anglian Coastal Authorities Group, North Norfolk District Council)

Another consultee questioning the appropriateness of the SD4 measure is Brighton and Hove City Council:

'SD4 refers to 'deprived communities', would this not be better as vulnerable communities, with 'vulnerable' being interpreted in its broadest sense. Is the use of the index of multiple deprivation appropriate? It is difficult to see why any community at risk from flooding or coastal erosion should be assessed for defence on the basis of its level of deprivation, unless there is an expectation that less deprived communities should pay (or make a large contribution) towards their own defence.'

CIWEM makes a more radical criticism of SD4 as a measure of vulnerability without elaborating:

' Outcome SD4 should focus on vulnerability rather than deprivation.'

Wycombe District Council also is highly critical and questions whether deprivation is an appropriate measure of vulnerability to flooding:

'The Consultation document refers to three categories of vulnerable people, the elderly, single parents and the less affluent (appendix C.13). The Council believes the use of the Index of Multiple Deprivation in SD4 does not adequately address those at risk. In this District those properties at greatest risk of flooding are adjacent to the River Thames and the Wards affected are at the higher end of the scale. However population statistics show that these Wards are likely to have 4 times the numbers of elderly and single parent families than those wards at the lower end of the scale.'

Commenting on Q4 it adds:

'SD4 – This measure is an extremely crude and inaccurate measure of the effect of flooding on vulnerable people. The comment that data is not available is wrong. This District publishes a number of fact files which identify the vulnerable groups identified in the Consultation by Ward area. However even Ward area will not give a fair assessment of the contribution made by improved flood defence, for example how would the protection of an existing major sheltered housing scheme be dealt with if it was the main beneficiary of a scheme, but happened to lie in a low deprivation index Ward?'

CEH comment:

'SD4: it is unclear why this is confined to *deprived communities*.'

Suffolk Coastal District Council calls for a broader measure of deprivation:

'Should the definition attaching to SD4 not reflect the different impacts of flooding and erosion on the deprived communities in a similar manner to P? If Defra is serious about tackling deprivation then these measures will have to consider the direct and indirect impacts of FCERM policy on job loss and job creation at coastal resorts. This is in recognition that FCERM schemes can have a wider impact on communities that cannot be fully measured by only recording the loss of houses. Protecting businesses is just as

important in areas which may not be classified as deprived but would suffer from a loss of jobs’.

Southern RFDC suggests under P that:

‘Consideration should be given to measuring other vulnerable accommodation e.g. hospitals, residential homes in addition to households.

PPS 25 has a more vulnerable land use category as part of its vulnerability classification that could be used to define such ‘vulnerable’ property.

The Wildlife Trusts raise concerns over possible perverse effects arising from SD4, as did JBA consulting.

‘Local authorities could consider SD4 as an incentive for housing led regeneration. This outcome measure is of some concern as it may influence logical-decision-making in the light of emerging strategies. For example, some of the most deprived electoral wards in Lincolnshire are on the East Lindsey coast. Work is starting on the Shoreline Management Plan which should take a strategic view of the coast. The local authority considers that housing led regeneration would be an important means of tackling social deprivation, but this would be unlikely to comply with PPS25 (The Wildlife Trusts).

The Highways Agency simply comments:

‘ SD4 – this is pretty vague.’

### **3.2.4 Risk to life**

An additional measure to assess the risk to life was a matter raised at the consultation workshop and in some consultees’ written responses including that of the Royal Yachting Association and National Flood Forum.

‘None of the proposed OMs assess the likelihood of loss of life either to humans or livestock (CLA).

‘Safety and the loss of life need to be recognised more fully.’ (National Flood Forum, Thames Flood Forum)

However, the Environment Agency makes a strong case against including such an OM:

‘Though preventing loss of life continues to be the over-riding priority of flood risk management, there are several reasons why the introduction of a specific OM for it would be unhelpful and potentially cause confusion. The reasons include:

- Where a fatality occurs it can be difficult to determine whether the proximate cause was flooding or not.
- Many of the interventions we already make which will be covered by oms, - flood warning, preparedness of emergency responders, maintenance, capital schemes – all serve to reduce the risk to life.
- If there were a target it would have to be zero loss of life; but it is unclear how this would affect investment decision making – what kind of additional investment which are not already being made could be targeted to reduce risk of loss of life?
- Any benefit analysis would have to judge the number of lives saved from the investment proposal and with would be very subjective in virtually all cases.’

### 3.2.5 Coastal perspectives

The All Party Group on Coastal and Marine Issues, in CoastNet Briefing paper No.3 on *Social justice and coastal flood and erosion risk management*, present a very different perspective on vulnerability and social justice arguing that:

‘Policy change has had a direct impact on those in vulnerable areas. Some argue that Government should provide recompense for injustice (loss, hardship, inequality) arising from policy change.’

i.e certain people have been made more vulnerable by policy change and the Group argues that this is an injustice.

‘There is a legacy today (threatened homes, financial loss) of injustice, as a result of decisions made in the past’ (i.e. prior to policy change).

For the Coastal Concern Action Group, Happisburgh, social justice was synonymous with compensation:

‘...we believe that social justice (compensation) should be part of the overall coastal management budget. Compensation must form part of the core strategy on equal terms with other management tools of hard defence, soft defence, etc. Following on from that, social justice (compensation) should be built into SMPs. Without this it is difficult to envisage SMPs themselves ever being acceptable to the full spectrum of stakeholders.’

### 3.2.6 Wider social measures and social justice

The ABI is one of a number of consultees who recognise the SD4 measure as a useful starting point but look to further refinement in the future.

‘The proposed measure would evaluate the level of social justice achieved by the Flood Management programme *between* communities but not within communities or wider society.

The ABI recognises that it is difficult to evaluate intangibles such as personal health and social equity but some indication can be gained by quantifying impact on public services such as the National Health Service, educational provision, or effectiveness of regeneration schemes and the resultant cost to the tax payer. These costs will fall on all communities at risk not solely to the most deprived but are likely to impact disproportionately on the poorest and most vulnerable in every community.

The proposed measure provides a useful starting point but the ABI considers that social equity issues go much wider and that some other proxy may give a better overall indicator or may usefully support and give context to the specific measure proposed. One possibility would be the take-up of insurance among low-income households in flood risk areas...’

A similar point is made by Brighton and Hove City Council:

‘It is always difficult to measure everything in financial terms but a significant element, particularly of flooding, is the psychological damage caused by flooding or averted by a flood defence scheme. Some guidance on what should be measured and how would be useful.’

The South Devon and Dorset Coastal Authorities Group also felt that the considerations of social issues were incomplete including in areas not covered effectively: social justice, loss of amenity/recreation/tourism, lack of insurance cover/loss of relocation and compensation, and the implications for sustainability and energy in relation to people and planning.

The North Norfolk District Council considers that

‘Sustainable development OMs could be usefully extended to cover further aspects. The Partial Regulatory Impact Assessment (RIA) highlights this point in Para. D20. In order for schemes to be truly holistic in accordance with Government Policy some measure is needed of a scheme’s added value to other Government Objectives. The Council considers that this is a serious omission. Such value added could be used also in any moderating process to rank schemes, though it would be better were it to form a separate Sustainable Development target.’

A similar view was expressed by Suffolk Coastal District Council (see paragraph 3.2.3 above), and it also notes:

‘Schemes to protect coastal resorts can also improve the amenities, facilities, infrastructure and environment and, thereby, make a major contribution towards the well-being of the area supporting the resort. This contribution, whilst being clearly evident, is difficult to measure and, as a result, is often not accounted for in the assessment/appraisal process. The Council believes that steps should be taken to ensure that this omission is re-addressed.’

The NFU and others expressed a concern that if these wider social, economic and amenity impacts were not included in targets, they would be ignored.

‘There is a danger, as with all government targets that these measures will become the ONLY things for which flood risk management will be assessed’

They went on to mention businesses, land, amenity, biodiversity and tourism impacts as missing.

A similar point was made by HR Wallingford:

‘However, this holistic vision is probably idealistic. In practice, reinforced by the need to use R, P, SD2, SD3, and SD4 OMs to achieve the laudable objective of improving the prioritisation process, there will inevitably be a focus on these measures for asset investment and a downgrading of other considerations.’

Black & Veatch Ltd point argue:

‘We have concerns regarding the limited number of Outcome Measures (OM) proposed when considering the prioritisation process. The number of parameters that will feed into the outcome measures prioritisation process is effectively less than in the present priority score method.’

### **3.3 Conclusions: first ideas on social justice issues (vulnerability)**

We would suggest that this area of the outcome measures proposal needs further work.

There are technical objections to the detail in the proposal, not least as to whether SD4 tackles flood vulnerability (we would suggest that it does, but only in part, a vulnerability to flooding is only partly related to ‘deprivation’) and whether the fine-ness of ward level detail is sufficient for the purpose.

Interestingly some consultees wondered whether the vulnerable should be afford FCERM priority (i.e. whether this was fair), hinting a different set of values. In our view, it is difficult to envisage a sensible system for FCERM that does not recognise that some communities are more vulnerable

to flooding than others and that these may deserve greater attention in the decision process (although some people may have created the extra vulnerability from which they suffer (on purpose or by default) by choosing to live or work in risk-prone areas). But we recognise that vulnerability is a contested subject, and that there are - as yet - no simple answers here.

## 4. Utility

### 4.1 The utility component - the greatest risk reduction per unit of resource input

Utility remains a core element in the proposals with Outcome Measure R capturing national risk quantified in economic terms. The weight attached to this economic measure, and thence the importance of the utility approach to social justice in the Outcome Measures and Prioritisation process, will depend to some extent on the targets set for it as compared with other OMs. The consultation document also notes that all the prioritisation options are value for money methods in that the scores achieved are related to the costs of the project.

### 4.2 Consultation responses

In the consultation responses, there were many detailed suggestions as to how R might be improved which will be covered by Defra's analysis of the consultation responses but little that had significant bearing on utility as a social justice issue.

A few comments were to the effect that there was still too much emphasis on economics. For example, JBA consulting stated:

'The main focus within the proposals still appears to be on economics.'

There were more general argument against a current narrow approach to economic valuation indicating that current economic assessment was not a 'fair' evaluation of national risk quantified in economic terms. Some argued for economic assessment based on wider criteria, for example, the CLA and Suffolk Coastal District Council.

Blackpool Council also commented on the limitation of the R measure:

'The risk measure only includes those impacts for which a money value can be assigned, usually residential and commercial property. Impacts that cannot readily be assigned a money value are therefore excluded.'

Risk and Policy Analysts went on to comment:

'This is a limitation of the system that will underestimate the risk and may exclude some important areas such as heritage assets (as stated in 5.3) and social impacts. Although it is stated that these will be addressed during development and appraisal of options it is not clear how this will work as the main objective of appraisal will realistically be to maximise outcome measures.'

The balance between the three pillars of sustainability that the OMs seek to represent was questioned by some consultees. For example one asked why there was only one sustainable development target (SD4) concerned with people and two (SD2 and 3) concerned with the natural environment. The Royal Yachting Association expressed this scepticism about the balance:

'What are the real priorities? What is the balance between 'social equity' and 'economic risk'?

### 4.3 Conclusions: first ideas on social justice issues (utility)

Several consultees rejected the idea that a decision process founded mainly on economics was fair. We would generally agree, but would reject that notion that the outcome measures system is only about economics.

However, again the devil is in the detail, and the detail is not clear (especially about target setting and appraisal). If outcome measures are to be maximised in a mechanistic way, judgement is clouded (or, worse, non-existent) and less wise decisions might obtain. If the result is investment based on Ministers' changing whims, wrapped up in a system that purports to maximise utility, the social justice will not be advanced.

On the other hand, the sparseness of the comments here may indicate that most consultees think the utility model is the fairest that can be devised, in which case the case for moving to outcome measures is somewhat diminished.



## 5. Summary and initial overall conclusions

This has been a useful exercise. The idea of policy change (i.e. the move towards outcome measures) brings out social justice issues that lie concealed when the *status quo* continues uninterrupted.

In terms of the three models of social justice, we judge that greater **procedural equality** is not necessarily guaranteed or even enhanced by the move to outcome measures, and we are supported in this by several important consultees. Nor is a move towards guaranteed or even enhanced outcome equality promoted by these measures, but then outcome equality is something of a false goal. But much depends here on how the system is implemented, not its design.

Whether greater social justice (fairness) is promoted within the outcome measures system using the **vulnerability model** of social justice is debatable. From what we have seen so far, it is not clear that it is, not least because of the difference between 'deprivation' and vulnerability (two overlapping but different concepts). This area needs more work.

In terms of the **utility** concept of social justice, there were very few consultees' comments. There is an under-tone of feeling from the consultation exercise that the outcome measures systems will, in fact, be economics-led (as is the current system). For those for whom this is a bad thing, they see a continuation of social injustice. Those for whom fairness is efficient spending of taxpayers' money (a position for which we have a sneaking regard), they have kept their thoughts to themselves.

We will return to these issues when we analyse the consultation returns on the development of the appraisal system.

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## Appendix 4 Coding framework for case study documents

### TITLE

**Author/originator/publisher:**

**Publication date:**

**General overview:**

Project/scheme timeframe	
Document timeframe	
Documents relevance to project/scheme	
Geographic scale	
Topics covered	
Type of floods included	
Links to higher-level documents	
Links to regional/local-level documents	
Stated aims/objectives	
Stakeholders involved in its compilation	
Stakeholders affected by document	
Evidence of Funding: Who pays Who benefits Distribution criteria	
Evidence of 'fairness' as equality (process): Openness; transparency, consultation,	

involvement	
Evidence of 'fairness' as equality (outcome)	
Evidence of 'fairness' as vulnerability (outcome)	
Evidence of 'fairness' as utility (outcome)	
Evidence of 'fairness' as intergenerational equity e.g. climate change	

## Appendix 5: Fairness in key documents

**Table 1: Securing the future**

<p><b>Document</b> <b>Equality</b> <b>(procedural</b> <b>justice)</b></p>	<p><b>Securing the future: delivering UK sustainable development strategy</b> <b>Major principle</b></p> <p><i>'Issues of inequality are at the heart of the Government's agenda'.(p.12)</i></p> <p><i>'A world disfigured by poverty and inequality is unsustainable' (p.12)</i></p> <p><i>'Promoting Good Governance Actively promoting effective, participative systems of governance in all levels of society – engaging people's creativity, energy, and diversity.'</i> (p.16)</p> <p><i>'This will involve working to give communities more power and say in the decisions that effect them; and working at the right level, to get things done.'</i></p> <p><i>'The commitments above also support the implementation of the Aarhus Convention which will strengthen public access to environmental information and public involvement in environmental decision-making, to which the Government is fully committed. The UK has recently ratified the Aarhus Convention as a sign of this commitment. (p.129).</i></p>
<p><b>Vulnerability</b> <b>(distributive</b> <b>justice)</b></p>	<p><b>Major principle</b></p> <p><i>'At the national level, we must provide opportunities for everyone to fulfil their potential. We must ensure that Government policy improve the life chances of the most vulnerable groups in society' (p.120)</i></p> <p><i>'A key priority is to reduce the risk of flooding to a greater proportion of vulnerable properties whilst making sure flood risk management policies across Government are forward looking, and contribute to sustainable development including biodiversity, water quality, urban drainage and regeneration'. (p.93)</i></p> <p><i>' While we carry out further research to help identify areas with the worst local environment, the Government will in the short term focus on improving the environment in areas already identified as most deprived by the index of multiple deprivation.'</i> (p.134).</p>
<p><b>Utility</b> <b>(distributive</b> <b>justice)</b></p>	<p><b>Minor principle</b></p> <p><i>'Building a strong, stable and sustainable economy which provides prosperity and opportunities for all, and in which environmental and social costs fall on those who impose them (polluter pays), and efficient resource use is incentivised' (p16)</i></p> <p><i>'Efficiency is an essential feature of public sector spending: public money must be well spent and not wasted....But we also need to examine ways to stimulate and enable whole-life accounting – where expenditure looks to achieve the best outcome for the public overall, irrespective of when or where costs and benefits fall.</i></p> <p><i>'The Government will ensure that this message [that departments and agencies must include environmental and social costs and benefits as well as economic costs and benefits so as to maximise potential benefits</i></p>

and reduce adverse impacts] is reinforced at all levels across departments. The Government<sup>6</sup> will also ensure that new case study guidance incorporates the latest thinking and techniques particularly on how to evaluate less tangible costs and benefits, such as the impact in different parts of the country and for different social groups on health, the environment, access to services, land use and natural resources so that issues of environmental inequality are addressed' (p155).

**Intergenerational equity**

*'Our Strategy for sustainable development aims to enable all people throughout the world to satisfy their basic needs and enjoy a better quality of life without compromising the quality of life of future generations.'* (P6)

Where sustainable communities are explicitly regarded as those that are fair for everyone and:

*'have due regard for the needs of future generations in current decisions and actions'* (P186)

*'Make the wrong choices now and future generations will live with a changed climate, depleted resources and without the green space and biodiversity that contribute both to our standard of living and our quality of life. Each of us needs to make the right choices to secure a future that is fairer, where we can all live within our environmental limits. That means sustainable development.'* (P3)

**Table 2: The Green Book**

**Document Equality (procedural justice)**

**The Green Book: Appraisal and evaluation in central government  
Minor principle**

*'It aims to make the appraisal process throughout government more consistent and transparent. (Para. 1.4)*

*'At the early stages, it is usually important to consult widely either formally or informally, as this is often the best way of creating an appropriate set of options'. (Para. 5.4)*

*'Once an option has been selected it will need to be refined into a solution. Consultation is important at this stage.'* (Para. 6.2)

*'Consultation with external experts and with those affected is very important at this stage, whether or not formal consultation has taken place earlier on.'* (Para. 6.13-6.15)

**Vulnerability (distributive justice)**

**Minor principle**

*'The impact of a policy, programme or project on an individual's well-being will vary according to his or her income; the rationale being that an extra pound will give more benefit to a person who is deprived than to someone who is well off. In economics, this concept is known as the 'diminishing marginal utility of additional consumption.'* (Para.5.34)

*'Other distributional issues may also arise, and should be considered during appraisal. A proposal may have differing impacts according to age, gender, ethnic group, health, skill, or location. These effects should be explicitly stated and quantified wherever feasible. For example, the costs and benefits of a proposal might be broken down according to the ethnic group they accrue to, providing appraisers with a basis for comparison*

and analysis.

*'Generally though, these other distributional issues are largely correlated with income. Therefore, if more in depth analysis is undertaken, it should focus on how the costs and benefits are spread across different socio-economic groups'* (Para. 5.35 and 5.36)

*'For the purposes of project appraisal, relative prosperity may often best be defined by relative income, adjusted for household size, and divided into quantiles (e.g. quintiles or deciles). The equity impact of competing options can be compared by charting the impact each has on different 'quantiles' of the income distribution. Proposals that deliver greater net benefit to households or individuals in lower income quantiles are rated more favourably than those that benefit in higher quantiles.'*

*'A more in depth analysis uses distributional weights to adjust explicitly for distributional impacts in the cost-benefit analysis. Benefits accruing to households in a lower quantile would be weighted more heavily than those that accrue to households in higher quantiles. Conversely, costs would be weighted more heavily for households in lower quantiles.'* (Paras. 5.37 and 5.38)

*'Rural issues – The government is committed to ensuring that all its policies take account of specific rural circumstances. Appraisers should assess whether proposals are likely to have a different impact in rural areas from elsewhere. Further guidance is available from Defra.'* (Para.2.25).

**Utility  
(distributive  
justice)**

**Major principle**

*'The Government is committed to continuing improvement in the delivery of public services. A major part of this is ensuring that public funds are spent on activities that provide the greatest benefits to society, and that they are spent in the most efficient way.'* (Preface)

*'This guidance is designed to promote efficient policy development and resource allocation across government. It does this by informing decision-making, and by improving the alignment of departmental and agency policies, programmes and projects with government priorities and the expectations of the public. The guidance emphasises the need to take account of the wider social costs and benefits of proposals, and the need to ensure the proper use of public resources.'* (Para. 1.2)

**Intergenerational  
equity**

Future generations are accounted for in the whole life of the project but based on the STPR and discount rate:

*'Society as a whole, also prefers to receive goods and services sooner rather than later, and to defer costs to future generations. This is known as 'social time preference'; the 'social time preference rate' (STPR) is the rate at which society values the present compared to the future.'* (Para. 5.49)

This manifests itself in the Discount Rate which is currently averaged at 3.5% with the declining DR over time favouring projects with shorter term benefits.

**Table 3. Making space for water**

<b>Document</b>	<b>Making space for water (2004): response (2005) and delivery plan (2005a)</b>
<b>Equality</b>	<b>Major principle</b>

**(procedural justice)**

*'In our future management of flood and coastal erosion risk, we are committed to applying the principles in the recently-published Sustainable Development Strategy. Whilst recognising the need to focus investment in defences where there is the greatest risk in terms of probability and consequence, we also want to consider what more the Government may be able to do to help all communities and individuals prepare for and live with flooding and coastal erosion risk. (p.7)*

*'The concept of sustainable development will be firmly rooted in all flood risk management and coastal erosion decisions and operations. Full account will be taken of the social environmental and economic pillars of sustainability and our arrangements will be transparent enough to allow our customers enough to allow our customers and stakeholders to perceive that this is the case'. (p. 14)*

*'There will be transparent and measurable targets and performance indicator, in terms of managing risks to people, property and the environment, to ensure that those responsible for delivering the strategy can be held to account'.(p. 15)*

*'We will implement the arrangements for stakeholder involvement at all levels of risk management as proposed in Making Space for Water. To provide for more informed dialogue with stakeholders more emphasis will be placed on making available user-friendly versions of key explanatory documents and guidance notes to explain key concepts...' (p. 16)*

*'The Government will develop a more strategic and integrated approach to managing coastal flooding and erosion risks, while ensuring democratic input into the decision-making process. We will carry out a consultation exercise on the decision-making and delivery roles of local authorities, and on different models for ensuring democratic input into decision-making. The models will include possible roles for current coastal groups and their relationship to existing Regional Flood Defence Committees.'* (Defra 2005, p.9)

*'There would be a need to ensure democratic input into decision-making in terms of how the Environment Agency exercises its functions at the regional level. The Government proposes to explore different models for achieving this, which will be the subject of further consultation in the future. The models will include possible roles for current coastal groups and their relationship to existing Regional Flood Defence Committees. We hope to complete this work by the end of 2007.'* (Defra 2005, p.33)

*'There will be local participation in decision-making, in particular through the preparation of Catchment Flood Management Plans and Shoreline Management Plans, within a context of national standards and nationwide information on flood risks and prioritisation.'* (MSW Vision p. 15)

**Vulnerability (distributive justice)**

**Minor principle**

*'However, the Government recognises that low income, vulnerable households in high risk areas may not be able to afford the flood protection products/resilience measures considered above. They may also be the least likely to be able to cope with a major flooding event. In July 2002 the Government, through The Regulatory Reform (Housing Assistance) (England & Wales) Order53 gave local authorities more flexibility to decide how they would provide home improvement grants, loans, help and advice to the most vulnerable within their areas. In view of the chronic health problems caused by flooding and long-term damage done to properties, the Government would encourage local authorities in high-risk areas to consider requests for assistance with flood protection/resilience products as a matter of course alongside other more*

traditional requests.’ Defra 2004, (p.95).

*‘The Government recognises that the vast majority of buildings on the floodplain already exist, and there is currently little incentive for property owners to make these buildings more resilient. While many will be protected by community schemes and/or flood warning, there will be a number of vulnerable properties on the floodplain where the provision of a flood alleviation scheme is very difficult. In the light of this, and taking into account the principles of sustainable development and social justice, the Government will carry out a feasibility study to consider whether it is practicable to provide Government financial support for making any of these properties more flood resilient/resistant. This study will consider a number of issues including the scope of any scheme, effectiveness, eligibility, the legal basis, the degree of incentivisation and the cost. Following the outcome of this study, a pilot grant scheme will be developed. The study and pilot will also consider other approaches to encouraging the uptake of resilience measures and the availability of suitable advice, which is covered in more detail below.’ (Defra 2005, p.23)*

**Utility  
(distributive  
justice)**

**Major principle**

*‘In the light of responses to the consultation, the Government will continue with its policy of providing funding for the maintenance of existing defences only where the costs are justified by the full range of benefits provided by the defences. Costs and benefits will, however, be measured in a more holistic way that takes better account of environmental and social, as well as economic, considerations. We will put in place clear exit strategies to ensure that withdrawal of funding is well planned and takes account of all the consequences. (Defra 2005, p.25)*

**Intergenerational  
equity**

*‘Account will also continue to be taken of long-term drivers such as climate change. Decisions will reflect the uncertainty surrounding a number of key drivers and will where appropriate take a precautionary approach. Decisions will be based on the best available evidence and science’.*

*‘So as to ensure better account is taken of climate change, Defra and the Environment Agency will produce revised guidance for use by those implementing flood and coastal erosion risk management measures. The revised guidance, to be finalised by the end of 2006, will ensure that adaptability to climate change through robust and resilient solutions becomes an integral part of all flood and coastal erosion management decisions. (Defra 2005, p.16)*

**Table 4: Outcome Measures**

**Document**

**Consultation on outcome measures and prioritisation approaches for FCERM (Defra, 2006)**

**Equality  
(procedural  
justice)**

**Minor principle**

*‘The outcomes required by government policy need to be stated in a clear and accessible manner to ensure that they are effectively disseminated and acted upon. The development of new Outcome Measures provides an opportunity to make clear the outcomes expected of policies and funding and to improve consistency between different levels of the strategic framework.’ (p.6, para.3.2)*

*‘Outcome measures will also contribute to the consistency and equity of approach between different types of risk, locations and operating authorities. There is currently little guidance on the priority to give different parts of the risk spectrum (e.g. Low probability /high impact vs high*



*probability/low impact or environmental vs social) when the calculated risks are similar. Outcome Measures will provide the framework within which Ministers can explicitly set the balance of the overall programme in a transparent and challengeable form, whilst in any particular area. Operating Authorities will have more flexibility to deliver on particular priorities within the suite of targets set on a national basis'. (p.6 para. 3.3)*

*'Fairness and transparency of prioritisation also relies on consistent application of current guidance on project appraisal'. (para.3.6, p.7).*

*'As there is a limited supply of money in any year to fund flood and coastal erosion risk management activities, a fair and transparent system is required to determine how and where this money should be allocated in order to achieve agreed priorities'. (para D.29, D9).*

**Vulnerability  
(distributive  
justice)**

**Minor principle**

OM 3: Deprived households at risk.

*Reflects increased vulnerability of deprived communities to FCERM and provides an opportunity to ensure that steps are taken to target assistance to the most deprived areas which are likely to have minimal social resilience and low levels of insurance. The measure is targeted at just under 20% of electoral wards so provides a good degree of focus. (D8)*

**Utility  
(distributive  
justice)**

**Major principle**

The quantification of risk in economic terms remains a major component of the Outcome Measures. Whilst OMs intend to give a 'more balanced' approach than in the past, economic efficiency will remain an important principle in the distribution of resources. OM 1 is important in this regard:

*Overall Benefits: This will show the benefits of flood and coastal erosion risk management activities in monetary terms. Where possible, aspects of the natural and historic environment and social benefits will be included. In time the costs and benefits of protecting properties, infrastructure, transport links, the environment and so forth will be identified separately as well as the total benefits. (Defra, 2007 – web page)*

*'this measure will represent the national programme's contribution to reducing overall economic risk, based upon project appraisal. The reduction measured will be a function of the benefits that the appraisal processes for the various projects have considered, so may include infrastructure and amenity benefits, for example, in addition to avoidance of direct damages to properties. Further, the impacts of climate change will be included in this assessment as most project appraisals include, for example, allowances for sea level rise in the calculation of future damages'. (A1)*

**Intergenerational  
equity**

OM 9 Long term policies and action plans is intended to ensure that intergenerational-equity issues are incorporated into decisions made today.

*'This measure will record preparation of long term flood and coastal erosion risk management policy documents, including Catchment Flood Management Plans (CFMPs), Shoreline Management Plans (SMPs) and equivalent plans for estuaries. This is an interim measure pending completion of plans over the coming few years, but reflects the importance of such long term policies in delivering sustainable risk management' (p12)*

*'The promotion of broader and more sustainable government policies, in particular the move towards risk management as opposed to simply*

*providing defences, means that new approaches to appraisal need to be investigated. This requires consideration of a wide range of impacts and is being addressed by Defra through the preparation of new policy guidance for appraisal which will be the subject of a further consultation in early 2007.(D13)*

*This is set against the context of increasing flood and coastal erosion risk as a result of climate change, with increased consequences because of greater national wealth and development in areas at risk. (D14)'*

## **Table 5 An Environmental Vision and social justice**

<b>Document</b>	<b>An Environmental Vision</b>
<b>Equality (procedural justice)</b>	<p><b>Major principle</b></p> <p><i>'Information and processes will be readily available to enable citizens, communities, businesses and government and its agencies to agree quality of life and environmental targets and the plans that will realise them'(p.20).</i></p> <p><i>'Consultation is important to us, both in shaping our activities and in developing a consensus that we have got it right.'</i> [p19]</p> <p><i>'Sustainability values and working practices within the Agency, including those of openness, collaboration, partnership, participatory decision making, precaution and respect for diversity, will reflect those of key stakeholders and of society in general.'</i> [p20]</p> <p><i>'The Agency will have detailed consultation with Government and industry and the wider community of stakeholders. In particular, we need to work better with, and learn from, communities and all those concerned with sustainable development. We will increase our consultation.'</i> [p.14]</p>
<b>Vulnerability (distributive justice)</b>	<p><b>Minor principle</b></p> <p><i>'The Agency needs to be more aware of the social issues raised by its work in protecting and improving the environment: for example the needs of people in poverty who often live in the most polluted neighbourhoods. This means becoming more active in decisions on integrating environmental sustainability with social justice and a more dynamic economy.'</i> [p10]</p> <p><i>We have to mobilise consumer behaviour and innovation in business and lifestyles; engage communities in planning for and delivering change; and produce and consume in ways that protect and enhance the environment while ensuring prosperity and a better quality of life for all, especially vulnerable communities.</i> [p18]</p>
<b>Utility (distributive justice)</b>	<b>Not mentioned</b>
<b>Intergenerational equity</b>	Addressed only in so far as climate change is mentioned

**Table 6 Environment Agency Corporate strategy 2006-11**

<b>DOCUMENT</b>	<b>Environment Agency Corporate Strategy 2006-11</b>
<b>Equality (procedural justice)</b>	<p><b>Minor principle</b></p> <p><i>'We are an organisation that is open, honest and responsive, and one which learns from experience and the good ideas of others. We listen to the views of everyone who has an interest in our work, especially our customers and the communities we serve' [p47]</i></p> <p><i>'Allocating funds for new schemes and maintenance on the basis of flood and erosion risk, and making sure that decision-making is clear and fair'. [p44]</i></p>
<b>Vulnerability (distributive justice)</b>	<p><b>Minor principle</b></p> <p><i>'The environment is important to everyone's wellbeing. People tell us that they are concerned about the quality of the environment where they live and the effect of pollution on their health. The poorest people often live in the worst environment.'</i> [p4]</p> <p><i>We recognise that to achieve sustainable communities we must ensure that flood warnings and advice are accessible by vulnerable members of society, particularly the elderly. We will develop new ways to evaluate the effects of flooding on people's health. To do this, we will need to work closely with local authorities, the water industry, conservation organisations and other groups. [p42]</i></p>
<b>Utility (distributive justice)</b>	<p><b>Minor principle</b></p> <p><i>'As a body spending public money and generating income by charging customers we need to use these resources wisely and make sure that we operate cost-effectively.'</i> [p52]</p> <p><i>'Developing a new method for appraising the wider environmental, social, health, and economic costs and benefits of schemes.'</i> [p44]</p>
<b>Intergenerational equity</b>	<p><i>We have a vision for the environment: a better place for people and wildlife, for present and for future generations.(p.2)</i></p> <p><i>The Government's independent report, Foresight Future Flooding, indicates that the number of people at risk could double by the 2080s, with risk at the coast especially increased. We will need to respond to sea-level rise, worsening coastal erosion, increases in tidal surges and more storms. Future housing growth may put more homes at risk. Each of the four major growth areas which are planned to address the housing shortage poses a different challenge for managing flood risk. One-third of the designated areas for development, or 100,000 homes, are located in the floodplain. [p41]</i></p> <p><i>We will need to ensure that investment in flood risk management and water resources makes us better at dealing with the impacts of climate change. Integrated approaches to catchment management will help us develop new techniques. [p38]</i></p>

**Table 7 Environment Agency Corporate Plan 2006-9. Translating strategy into action**

<b>DOCUMENT</b>	<b>Environment Agency Corporate Plan 2006-9 Translating strategy into action</b>
<b>Equality (procedural justice)</b>	<p><b>Minor principle</b></p> <p><i>'But we can't do it all ourselves. We also need to: • be an <b>influential adviser</b> and an effective partner, persuading others to act and to work with us.'</i> [p2]</p> <p><i>'Raise public awareness of the environment through partnerships and through production of state of the environment reports.</i> [p5]</p> <p><i>'Promote the use of RBMPs (statutory) and CFMPs / SMPs with our stakeholders, so that they provide a framework for others to work within and present opportunities for partnership working.'</i> [p22]</p> <p><i>'Ensure that all relevant staff have the skills and guidance to work effectively with local communities by 2008. This will include a focus on minority communities so that we listen to the views of all those we serve.'</i> [p28]</p>
<b>Vulnerability (distributive justice)</b>	<p><b>Minor principle</b></p> <p><i>'Increase the take up of the warning service with all groups but particularly the most vulnerable, such as the elderly.'</i> [p21]</p>
<b>Utility (distributive justice)</b>	<p><b>Major principle</b></p> <p><i>'Ensure that funding is allocated to new schemes and maintenance on the basis of effectiveness, efficiency and risks. We will redirect resources from those defence systems no longer justified.'</i></p> <p><i>'Develop a new method for examining the wider environmental, social, and economic costs and benefits of schemes, and use this method when selecting the best scheme for a river or coastal flood or erosion risk area.'</i></p> <p><i>'Develop new guidance to ensure that the wider environmental, social and environmental costs and benefits of schemes are fully appraised.'</i> [p22]</p>
<b>Intergenerational equity</b>	<p><i>'Our long-term aim: Everyone will have the opportunity to enjoy a high quality environment now and for future generations. More people will care for, use, appreciate and enjoy their environment.'</i> (5)</p> <p><i>'Adapt to the impacts of climate change by using best science to assess the risk of flooding and use this to inform our priorities and long term plans. • Take account of the need to meet anticipated changes in flood risk brought about by climate change when planning flood management measures and include provision for future resilience or adaptation as appropriate. As the climate changes, the number of people at 'high' risk from flooding is expected to rise from 1.5 million to 3.5 million by 2080. Consequently, an increasing programme of flood management activity, including effective planning, mitigation and alleviation is likely to be required, in line with the Government's Foresight Report on flooding published in 2004.'</i> [p19]</p>

**Table 8 Environment Agency Strategy for flood risk management (2003/4 – 2007/8)**

<b>DOCUMENT</b>	<b>Environment Agency Strategy for flood risk management (2003/4 – 2007/8)</b>
<b>Equality (procedural justice)</b>	<p><b>Major principle</b></p> <p><i>‘Simplicity and transparency. Understanding and managing flood risk is a complex area. We want to promote greater understanding of flooding and what can and cannot be done to prevent and mitigate the effects of floods, so our messages need to be kept simple and our decisions transparent.’ [p.7]</i></p> <p><i>‘A Programme Management approach will be adopted to ensure clear accountabilities for national projects.’ [p.20]</i></p> <p><i>‘Accountability. We will be clear on the accountabilities for delivering our flood risk management activities and communicate these accountabilities to our stakeholders.’ [p.7]</i></p> <p><i>‘Consistency. We will work to consistent business processes, supported by effective information systems. The national targets will be applied to regions to start the move towards consistent service levels across England and Wales.’ [p.7]</i></p> <p><i>‘We need to broaden and enhance our flood marketing and communications to provide clear messages on how to reduce the risks of flooding, not relying on just flood warning and response. Our communications need to influence Government, industry, our partnering organisations and the public on the need for this new approach.’ [p.15]</i></p> <p><i>We must understand the needs of our stakeholders, professional partners and customers and allocate resources accordingly. Good communication needs time and resources. We will ensure that we deliver clear, consistent messages using relevant communication channels to all groups. We will encourage feedback to fuel improvements.’ [p.15]</i></p>
<b>Vulnerability (distributive justice)</b>	<b>Not mentioned</b>
<b>Utility (distributive justice)</b>	<p><b>Major principle</b></p> <p><i>‘It will never be cost effective, technically feasible or environmentally acceptable to defend all properties at risk of flooding. So we need to target and prioritise our investment and resources at those areas where we can most effectively reduce flood risk. In doing so, we will consider the probability of flooding and the consequences.’ [p.10]</i></p>
<b>Intergenerational equity</b>	<p><i>‘We will focus our resources on minimising the risk to life, property and the environment, while exploiting the benefits of natural flooding for biodiversity, in an integrated way that will accommodate the impacts of climate change’ [p.6].</i></p> <p><i>A major element...will be Catchment Flood Management Plans (CFMPs), which will enable us to:</i></p> <ul style="list-style-type: none"> <li><i>(a) understand current and future flood risk from all sources within the catchment, and quantify the risks</i></li> <li><i>(b) plan for the likely impacts of climate change on flood risk</i></li> <li><i>(c) consider opportunities for reducing flood risk through changes in land use or more sustainable land management practices, and evaluate how benefits could be derived from new agri-environmental measures.....’[p.10-11]</i></li> </ul>

**Table 9: Environment Agency Position statement: Addressing environmental inequalities**

<b>DOCUMENT</b>	<b>Environment Agency Position statement: Addressing environmental inequalities (2004)</b>
<b>Equality (procedural justice)</b>	<p><b>Minor principle</b></p> <p><i>'The Aarhus Convention (United Nation as ECE/CEP/43) is helping to promote environmental justice. It advocates the right to environmental information, the right to participate in decision-making processes and the right to access to justice in environmental matters' [p.3]</i></p>
<b>Vulnerability (distributive justice)</b>	<p><b>Major principle – but as deprivation only</b></p> <p><i>'People who are socially and economically disadvantaged often live in the worst environments. These problems can affect people's health and well being and can add to the burden of social and economic deprivation.'</i> [p.1]</p> <p><i>We welcome the proposal that environmental and social justice should be a key theme in the UK Sustainable Development Strategy. We will help by scrutinising our approach to modern regulation and flood risk management to help reduce the risks to deprived communities.</i> [p.2]</p> <p><i>We welcome moves by the Office of the Deputy Prime Minister and Welsh Assembly Government to recognise the environmental aspects of multiple deprivation' [p.2]</i></p>
<b>Utility (distributive justice) Intergenerational equity</b>	<p><b>Not mentioned</b></p> <p><i>'We will do what we can to address environmental inequalities and ensure that we do not contribute to further inequalities in the future' [p.2]</i></p>

**Table 10: Flood Warning Investment strategy appraisal report**

<b>DOCUMENT</b>	<b>Flood Warning Investment strategy appraisal report (2003)</b>
<b>Equality (procedural justice)</b>	<p><b>Minor principle</b></p> <p><i>'The report presents the apportionment of the total investment of providing a Flood Warning Service, both to internal (Agency) functions, such as Flood Defence, and externally to the public, in a clear and transparent way' (p11)</i></p>
<b>Vulnerability (distributive justice)</b>	<p><b>Minor principle</b></p> <p>The ability indicator of system performance: <i>'proportion of residents able to understand and respond to a timely, accurate and reliable flood warning'</i>. [appendix XIV].</p> <p><i>'New communication strategies for developing our learning and education programmes and for reaching and targeting 'hard to reach' groups such as elderly, disabled, and ethnic minorities. The Agency is required to provide appropriate services to diverse groups and effective communications will form a key element.</i> [p57].</p> <p><i>'Further social research programmes, such as "flood warning for vulnerable groups" and "flood warning communications</i></p>

*technologies”...are also central to the process of continued evaluation and learning to apply to future awareness and education programmes.’*  
[p57]

**Utility  
(distributive  
justice)**

**Major principle**

The document argues for a cost-benefit analysis to be applied in the evaluation of the following four options:

*Option 1- Maintain the 2002 Status quo level of service (baseline option)*  
Basically to keep investment the same and only maintain 2002 standards (investment needed £200 million). But this option does not meet the current requirements set out by Government nor the targets outlined in the EA’s corporate plan.

*Option 2 – Intermediate Service*  
The basis of the option is to provide a service to the public which has the minimal level of improvements necessary to address only the highest priority problems and difficulties encountered in the Easter 1998 and Autumn 2000 events. This option would make some improvements towards the targets, but does not meet the full published performance targets.

*Option 3 – The Current Targets Service (the recommended option).*  
Requires levels of investment to meet the problems encountered and the targets set following the Easter 1998 and Autumn 2000 flood events)

*Option 4 – The Public Expectation Service*  
Develops the system further to provide highly efficient region-wide Flood Forecasting Systems models to deliver data to the public on the predicted levels of flooding at an individual property level.

The recommended option is then argued on the basis of flood damage avoided:

*‘The combined benefits for both England and EA Wales of the recommended option are based on the amount of Flood Damage Avoided (FDA) from the assessed Annual Average Damage (AAD) estimate...’*  
(p11)

**Intergenerational  
equity**

*Flood risks arising from land use and climate change will be recognised, understood and fully taken into account in planning [p.22]*

**Table 11: FCD PAG 1: Overview**

DOCUMENT	FCDPAG1 overview
<b>Equality (procedural justice)</b>	<b>Minor principle</b>
	<i>‘transparent, balanced and better decision making’ (pp.1, para. 1.1)</i>
<b>Vulnerability (distributive justice)</b>	<b>Not addressed</b>
<b>Utility (distributive justice)</b>	<b>Major principle</b>
	Noting that £400m was spent on flood and coastal protection in England and Wales in 2000 it states:
	<i>‘The bulk of this expenditure is ultimately met by taxpayers, many of whom derive little benefit from money spent on their behalf . Good project appraisal is an essential part of ensuring that tax payers receive value for money (p.1, para 1.1)</i>

<b>Intergenerational equity</b>	<i>'Designing for long-term viability and adaptability to meet the needs of future generations; Designing with a whole life approach – including adaptability to natural processes , climate change impacts and other factors listed below.'</i> (p.28)
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**Table 12 FCDPAG2: Strategic planning and appraisal**

<b>DOCUMENT</b>	<b>FCDPAG2 Strategic planning and appraisal</b>
<b>Equality (procedural justice)</b>	<p><b>Major principle</b></p> <p><i>'Consultation is an essential element of strategy development. It requires careful preparation and management. All stakeholders and interested parties should be involved in the process at an appropriate time and kept informed of developments without inducing 'consultation overload'. (p.26)</i></p> <p><i>'A prime function of consultation will be to build a framework of relationships with stakeholders to develop ownership of flood and coastal defence problems and partnerships committed to finding acceptable solutions'. (p.26)</i></p> <p><i>'Consultation is also an opportunity to maintain the awareness of statutory bodies and others to flood and coastal defence problems and to take good account of them , particularly in statutory plans.'</i> (p.26)</p>
<b>Vulnerability (distributive justice)</b>	<b>Not addressed</b>
<b>Utility (distributive justice)</b>	<p><b>Major principle</b></p> <p><i>'In most cases the economic appraisal carried out at the strategy level will provide a significant part of the necessary justification for expenditure on subsequent individual schemes promoted to implement the strategy'. (p.23)</i></p>
<b>Intergenerational equity</b>	<i>'Designing for long-term viability and adaptability to meet the needs of future generations; Designing with a whole life approach – including adaptability to natural processes , climate change impacts and other factors listed below.'</i> (p.28)

**Table 13 FCDPAG3: Economic appraisal**

<b>DOCUMENT</b>	<b>FCDPAG3 Economic appraisal and supplements</b>
<b>Equality (procedural justice)</b>	<p><b>Minor principle</b></p> <p><i>'It should be emphasised that the aim of cost benefit analysis is to provide a transparent and inclusive approach to decision making which as far as possible takes all the relevant factors into account. Some impacts cannot easily be valued in money terms but this should not exclude them from the decision making process.'</i> (p2.)</p> <p><i>'Consultation is a necessary part of most schemes. It is good practice to undertake consultations early in scheme design and continue them throughout design work and implementation....Consultations should provide the opportunity to ensure comprehensive consideration of all appropriate costs and benefits by the promoting authority.'</i> (p.7)</p>
<b>Vulnerability</b>	<b>Minor principle</b>



(distributive justice)

*Total weighted Factors by social class group*

AB%	C1%	C2%	DE%
0.74	1.12	1.22	1.64

Maximum Utility

**Major principle:**

The purpose of this document is to: 'to test the economic efficiency of different options on a comparable basis.' (p.56)

The guidance's procedure 'which may be applied on a project by project basis, is to maximise the benefit-cost ratio of those schemes being funded while seeking to achieve a standard of protection commensurate with the current land use.' (p.61)

'the basic aim of the flood and coastal defence programme must be to obtain best value for money for the whole programme within the constraints inherent in best practice, government policy and overriding external factors.'

Intergenerational equity

'FCDPAG1<sup>3</sup> sets out the basis for considering climate change. Detailed sea level rise allowances are also recommended in FCDPAG3<sup>3</sup>. FDCPAG4<sup>3</sup> also set out advice on sensitivity testing. In April 2003, a supplementary note on climate change built upon the earlier FCDPAG guidance and updated precautionary allowances for sea level rise, together with sensitivity allowances for increased river flows; extreme rainfall, increased wave heights, and high and extreme wind speeds. Prior to the supplementary note issued in April 2003, a further supplementary guidance note was issued in March 2003, which recommended whole life appraisals typically of 75-125 years, reflecting Treasury Green Book changes. This led to a need to consider longer term timescales, together with the inevitable longer term effects of climate change. The allowances and sensitivity ranges covered in this note therefore cover up to year 2115. In addition, this note covers changes to reflect most recent findings, such as in land movement and the effects of thermo-expansion of the sea. Whilst acknowledging the updates to allowances in recent years, climate change advice in the FCDPAG3 documents is still relevant, particularly regarding: uncertainty, natural variability, flexibility in design, sensitivity analysis and ocean circulation changes. (p.1)

**Table 14 FCDPAG4: Approaches to risk**

DOCUMENT

FCDPAG4 Approaches to risk

Equality (procedural justice)

Not mentioned

Vulnerability (distributive justice)

Not mentioned

Maximum Utility

**Major principle:**

This guide, FCDPAG4, aims to facilitate the proper consideration of risk issues and the derivation of appropriate economic values and decision making, as set out in FCDPAG3' (p.1)

'Flood and coastal defence brings benefits to individuals and communities as well as the national economy. The benefits include protecting lives and avoiding physical and mental health impacts that can arise following flooding. These benefits apply to those living and working in a protected area, and may benefit road users, holiday makers and others in the area. The risks from flooding depend on

many factors such as the rapidity and depth of flood inundation, flood warnings and the ability of people and communities to react.' (p.16).

**Intergenerational equity**

'It is important to address these long-term changes in an appraisal' (p.32) e.g.:

'There may be a long-term change in the expected damage. For example, the probability of damage behind a sea defence, due to overtopping, can be expected to increase in future due to sea level rise. In that case, the expected damage should be evaluated at several different instances in the future and these should be input into a discount table'. (p.39)

'Long-term consideration of the balance of risk and uncertainty may be' important in judging the sustainability of different solutions, which should be a key factor in option choice'. (p.46).

**Table 15: The Benefits of Flood and Coastal Erosion Management: A Manual of Assessment Techniques**

**Document**                      **The Benefits of Flood and Coastal Erosion Management A Manual of Assessment Techniques**

**Equality (procedural justice)**                      **Minor principle**

'The aim of the research behind the Manual has been to improve efficiency and consistency in benefit assessment within flood and coastal erosion risk management.' (Foreword)

'Critical to the achievement of a 'just' process and a 'right' decision is stakeholder involvement'. [p.19]

'In project appraisal, this involvement needs to be included in the definition of the problem through to the identification of options and the assessment of the relative importance that should be given to achieving the different objectives'

- 1.Stakeholders need informed involvement, with information available to all (DETR 2000): the project appraisal technique can contribute to creating a shared knowledge base;
- 2.The project appraisal methods must serve as a framework through which stakeholders can explore, argue and negotiate their concerns. This can apply equally to both Benefit-Cost Analysis (BCA) and Multi-Criteria Analysis, although it is not always so apparent in the former as in the latter (FHRC/ and RPA, 2001)'. [p.20]

**Vulnerability (distributive justice)**

**Minor principle**

'A vulnerability analysis for households comprises a method indicating the likely impact of floods of different severities on the households affected. Because of its experimental nature, we do not advise formalising the presentation of the results of such an analysis due to the possibility of making the analysis appear over precise. Nevertheless users are recommended to consider the variables used in the calculation of the FHRC Social Flood Vulnerability Index (SFVI) (Tapsell et al. 2002) which is a composite index [p.74]

Other variables that it is suggested should be considered are:

- No of residents in the flood prone area, disaggregated by flood frequency if preferred
- Approximate proportion of households in each social class

*The proportion of residences which are bungalows, basement or ground floor flats (often occupied by the elderly or infirm)  
The predicted flood depths (over 0.6 m can be life threatening)  
Flood warning lead times  
Other flood characteristics including the location of residences close to defences which may be overtopped or breached.[p.74]*

*'It would be wise to give higher priority to schemes that protect more vulnerable people, so that the gain to society is greatest from the expenditure of the necessary resources. Such an analysis should assist the user in determining the scale of the likely intangible impacts of flooding on householders.'*(p.74).

**Utility  
(distributive  
justice)**

**Major principle**

*'the approach to project appraisal adopted throughout the Manual is the efficient investment of resources by the nation' (p.3).*

*'The Manual is therefore an updated and improved version of all three of those Manuals [blue, red and yellow], dealing as they did, respectively, with flood risk management benefits, indirect benefits, and coastal erosion management and sea defence benefits' (p.2).*

*'The primary aim is to present the user with a range of techniques and data that can be used in a practical way to assess the benefits of (a) fluvial flood risk management schemes and policies, and (b) plans and schemes to alleviate the impact of erosion at the coast.....' (p.3).*

**Intergenerational  
equity**

*'The problem is that one curve can only be preferred to another if we assume that there is no preference about the shape of the curve. However, inter-generational equity is clearly a case where it is the shape of the curve that is of concern...since discounting does not address these preferences for the distribution of benefits and costs of over time, all that can be done is to prepare plots... and then prepare a reasoned argument for the choice of option based on Net Present Values. Thus there is no technical rule that can be provided to determine the choice, rather it is again down to preferences and value judgments (p.26)*

**Table 16: Modelling and Decision Support Framework (MDSF)**

**Document  
Equality  
(procedural  
justice)**

**Modelling and Decision Support Framework (MDSF)  
Minor principle**

*The MDSF helps to provide objectivity and national consistence in risk and policy appraisal' (p. 1)*

**Vulnerability  
(distributive  
justice)**

**Minor principle**

*'The SFVI cannot be used in a mechanistic way....Instead, the index should be mapped for the floodplain areas affected, to determine the balance of vulnerable communities, when viewing the impact of alternative flood risk management options. Other things being equal, it would seem wise to give higher priority to options that protect more vulnerable people, so that the gain to society is greatest from the expenditure of the necessary resources. Again, other things being equal, it would not seem wise to give priority to options which do not protect people who are particularly vulnerable, as might be the case in certain geographical locations' (p. 51, para. 6.6)*

*'The spatial application of the social vulnerability tool can be selected to reflect the locations in the study area that most influence the decision making process. For instance, if there is particular highly vulnerability at specific locations within the large catchments, this might often be crucial with respect to the selection of a flood risk management option.' P.51,*

<b>Utility (distributive justice)</b>	para. 6.6) <b>Major principle</b>  <i>'The overall damage calculation undertaken within the MDSF follows standard procedures by integrating the area under the loss-probability curve.'</i> (p.42)
<b>Intergenerational equity</b>	<i>'The damage dataset (NPD) is a snap shot in time. As such the damage calculations do not accommodate the potential impact of future economic and development in areas affected by flood risk. Allowances for short and medium term impacts can be made by referring to land use projections given in Regional Planning Guidance, Structure Plans and Local Plans. Longer-term projections will have to be based on economic growth and development potential'</i> (p46).

## Table 17: CFMP Policy guidance and system documents

<b>Document Equality (procedural justice)</b>	<b>CFMP policy guidance (2004) and system documents (2006)</b> <b>Minor principle</b>  <i>'Reducing flood risk calls for collaboration with local planning authorities, landowners, local communities and other interested groups. Hence, the Environment Agency will seek to develop CFMPs in partnership with other flood defence/land drainage operating authorities, English Nature and Regional Planning Boards, the Welsh Assembly, and in consultation with key stakeholders and the general public. [Vol. I, p.6]</i>  <i>'Through effective stakeholder participation, and consideration of the wider social agenda, the CFMP can also make a significant contribution to achieving the broader objectives of sustainable development: equity, social inclusion and engagement in decision making (e.g. regeneration, sustainable communities, partnerships).'</i> [Vol. I, p.16]  <i>'the method and extent of consultation at this time (scoping) will vary according to the complexity of the CFMP. Participative decision making techniques, such as multi-criteria analysis, must be designed carefully.'</i> (Vol 11)
<b>Vulnerability (distributive justice)</b>	<b>Minor principle</b>  <i>'Flood risk should be expressed in terms of...The population affected and the social vulnerability of populations affected by flooding'. (Vol. 1., p.16).</i>
<b>Utility (distributive justice)</b>	<b>Minor principle</b>  <i>A flood Modelling and Decision Support Framework (MDSF) has been developed, which will be used to support the production of all CFMPs. (Vol 1, p. 12)</i>
<b>Intergenerational equity</b>	<i>'The aims set the overall direction of flood risk management at the catchment scale. They represent long term aspirational targets that are not necessarily deliverable within the life of a single CFMP'</i> (Vol. 1 p.3)  <i>'The Key objective of a CFMP is to develop complementary policies for long-term management of flood risk within the catchment that take into account the likely impacts of changes in climate, the effects of land use and land management, deliver multiple benefits and contribute towards sustainable development'</i> (Vol. 1 p.3).  <i>'CFMPs will identify broad policies for sustainable flood risk management that make sense in the context of the whole catchment and for the long</i>

term (50 to 100 years)...Whilst it is not possible to understand in detail what will occur in 50 to 100 years time, general trends can be projected to test the sustainability of plans...' (Vol. 1 p.2)

This is then reflected in the key outputs:

*'A broad understanding of the size, nature and distribution of current flood risk and scenarios for future flood risk in the catchment.*

*A complementary set of justifiable, long-term flood risk management policies that satisfy the catchment objectives..' (Vol 1. p.5)*

**Table 18: SMP documents**

<b>Document Equality (procedural justice)</b>	<b>SMP guidance: policy and procedures (Defra, 2006) Major principle</b>
	<i>'When considering the type of consultation and involvement that it appropriate, the following three points are important. "Transparency and auditability" so that interested people can understand why a decision has been made and what information it is based on. Clear explanations of terminology What a shoreline management policy will cover and the rights people have to influence it.'</i> (Vol.1p.17)
	<i>'More efficient and focused consultation, with stakeholders invited to comment on preferred policies and their likely consequences...'</i> (Vol 1. p.8)
<b>Vulnerability (distributive justice) Utility (distributive justice)</b>	<b>Not mentioned</b>
	<b>Major principle</b> <i>'The socio-economic status of the preferred policies should be appraised. Best available information should be used (e.g. existing coast defence strategies, however by using appropriate broad scale for defences and output from the MDSF, new assessments can be made. The socio economic assessment should address whether or not each policy is clearly economically viable clearly not economically viable; or of marginal viability.'</i> (Vol.2, p.57)
<b>Intergenerational equity</b>	<i>Awareness of the longer-term implications (50 to 100 years) of coastal change, climate change and rises in sea levels. (p.8)</i>
	<i>'identify the preferred policies for managing risks from floods and erosion over the next century' (p.11)</i>

**Table 19: Planning Policy Statement 1 (PPS1): Delivering Sustainable Development.**

<b>Document Equality (procedural justice)</b>	<b>Planning Policy Statement 1 (PPS1): Delivering Sustainable Development and Climate change supplement Major principle</b>
	<i>'The Government is committed to developing strong, vibrant and sustainable communities and to promoting community cohesion in both urban and rural areas. This means meeting the diverse needs of all people in existing and future communities, promoting personal well-being, social cohesion and inclusion and creating equal opportunities for all' [p7. para 14]</i>

*'Plan policies should: seek to reduce social inequalities (p.7. para. 16)*

*'Local communities, businesses, the voluntary sector and individuals have a right to a high quality service that is fast, open, transparent and consistent and respects the cost, effort and commitment that has gone into engagement in plan making and in preparing and submitting applications.'* [p3.para. 9]

*'This plan-led system, and the certainty and predictability it aims to provide, is central to planning and plays the key role in integrating sustainable development objectives. Where the development plan contains relevant policies, applications for planning permission should be determined in line with the plan, unless material considerations indicate otherwise.* [p.3, para.8]

*'Planning is a tool for local authorities to use in establishing and taking forward the vision for their areas as set out in their community strategies. The planning process already offers local communities real opportunities to influence how they want their area to develop. More effective community involvement is a key element of Government's planning reforms. This is best achieved where there is early engagement of all the stakeholders in the process of plan making and bringing forward development proposals.* [p.4]

*'Community involvement is vitally important to planning and the achievement of sustainable development'*. [p.15 para.40]

*'Community involvement in planning should not be a reactive tick-box, process. It should enable the local community to say what sort of place they want to live in at a stage when this can make a difference'*. [p16, para. 43].

*'give local communities real opportunities to influence, and take action on climate change.'* [Climate change supplement, p13, para5]

strategies should *'reflect the development needs and interests of communities and enable them to contribute effectively to tackling climate change.'* [Climate change supplement, p.13 para.6]

**Vulnerability  
(distributive  
justice)**

**Major principle**

*'Plan policies should:*

- seek to reduce social inequalities;*
- take into account the needs of all the community, including particular requirements relating to age, sex, ethnic background, religion, disability and income;'*
- deliver, safe, healthy and attractive places to live'*. [p7.para.16]

*'There will be permanent changes in the natural environment but also, and increasingly, substantial challenges to national prosperity and social cohesion. It is quite likely that the impacts of climate change will be felt first, and disproportionately so, by the most vulnerable in society.'* [Climate change supplement, p.12 para.1]

**Utility  
(distributive  
justice)**

**Minor principle**

*'Key objectives should include ensuring that developments: are sustainable, durable and adaptable (including taking account of natural hazards such as flooding) and make efficient and prudent use of resources;'* [p 14, para. 36]

**Intergenerational  
equity**

*'Sustainable development is the core principle underpinning planning. At the heart of sustainable development is the simple idea of ensuring a*

*better quality of life for everyone, now and for future generations* ' [p.2]

*'Development plan policies should take account of environmental issues such as :*

*- the potential impact of the environment on proposed development by avoiding new development in areas at risk from flooding and sea-level rise, and as far as possible, by accommodating natural hazards and the impact of climate change;*[para.20, p.8]

*This means meeting the diverse needs of all people in existing and future communities* (p.7)

*'Ensure that plans are drawn up over an appropriate time scale and do not focus on the short-term and ignore the longer term impacts and the needs of communities in the future. Planning authorities should consider both whether policies have short term benefits which may have long term costs but also whether short term detriments which are capable of being mitigated) may be offset by longer terms benefits which are realistically achievable'. [p10. para 26(ii)]*

*' – new development should be located and designed for the climate, and impacts, it is likely to experience over its extended lifetime;'* (Climate change supplement, p. 14, para 7)

*' – climate considerations should be integrated into all spatial planning concerns including transport, housing, economic growth and regeneration, water supply and waste management, and not considered separately;'* (Climate change supplement, p. 14, para 7)

*'consider the desirability of avoiding new development in those areas with likely increased vulnerability to climate change, particularly where it is not viable to manage likely risks through suitable measures to provide resilience; and bring forward adaptation options for existing development in likely vulnerable areas.'* (Climate change supplement, p. 15, para. 9)

*'Known physical and environmental constraints on development of land such as sea level rises, flood risk and stability and take a precautionary approach to increases in risk that could arise as a result of likely changes to the climate.'*[Climate change supplement, para 19, p.18]

## **Table 20: Planning Policy Statement 25: Development and Flood Risk (PPS25)**

<b>Document</b>	<b>Planning Policy Statement 25: Development and Flood Risk (PPS25)</b>
<b>Equality (procedural justice)</b>	<b>Major principle</b>  <i>'The aims of planning policy on development and flood risk are to ensure that flood risk is taken into account at all stages in the planning process to avoid inappropriate development in areas at risk from flooding, and to direct development away from areas at highest risk.'</i> [p.2]  <i>'The Exception Test is only appropriate when there are large areas in Flood Zones 2 and 3 (medium and high probability), where the Sequential Test alone cannot deliver acceptable sites and where some continuing development is necessary for wider sustainability reasons taking into account the need to avoid social or economic blight and the need for</i>

essential infrastructure to remain operational during floods. It may also be appropriate to use it where restrictive national designations such as landscape, heritage and nature conservation designations e.g. Areas of Outstanding Natural Beauty (AONBs), Sites of Special Scientific Importance (SSSIs) and World Heritage Sites (WHS), prevent the availability of unconstrained sites in lower risk areas (p.7).'

- 'working effectively with the Environment Agency, other operating authorities and other stakeholders to ensure that best use is made of their expertise and information so that plans are effective and decisions on planning applications can be delivered expeditiously; and
- ensuring that spatial planning supports flood risk management policies and plans, River Basin Management Plans and emergency planning.' (p.3)

'Community involvement is an essential element in delivering sustainable development and creating sustainable communities. The Planning and Compulsory Purchase Act 2004 requires regional planning bodies and local planning authorities to prepare a Statement of Community Involvement, in which they set out their policy on involving their community in preparing RSSs and LDDs and on consulting on planning applications. This should include community engagement on flood risk issues across the wide range of stakeholders including those mentioned above and community groups. The Disability Discrimination Act 2005 and its codes require that disabled people are included in any such engagement.' (Annex H)

**Vulnerability (distributive justice)**

**Minor principle**

Some examples of the Flood Vulnerability Classification:

<i>Essential infrastructure:</i>	<i>Transport infrastructure inc. evacuation routes, strategic utilities – power stations,</i>
<i>Highly vulnerable:</i>	<i>Police stations, Ambulance, Fire, basement dwellings, residential caravans</i>
<i>More vulnerable:</i>	<i>Hospitals, residential institutions, e.g. prisons, children's homes, dwellings, land-fill sites</i>
<i>Less vulnerable:</i>	<i>Shops, agricultural use, water, sewage and waste treatment except landfill/hazardous waste</i>
<i>Water-compatible</i>	<i>Docks, flood control, ship building, gravel and sand workings, amenity open space</i>

**Utility (distributive justice)**

**Not mentioned**

**Intergenerational equity**

'Positive planning has an important role in helping to deliver sustainable development (see Annex A) and applying the Government's policy on flood risk management, It avoids, reduces and manages flood risk by taking full account in decisions on plans and applications of:

- *Present and future flood risk, involving both the statistical probability of a flood occurring and the scale of its potential consequences, whether inland or on the coast; and*
- *The wider implications for flood risk of development located outside flood risk areas.'* [p.1.]



**Table 21: Planning Policy Guidance: Coastal Planning (PPG20)**

Document	Planning Policy Guidance 20:Coastal Planning
<b>Equality (procedural justice)</b>	<p><b>Minor principle</b>  <i>Public access to the coast should be a basic principle, unless it can be demonstrated that this is damaging to nature conservation or impractical.</i>[p15]</p>
<b>Vulnerability (distributive justice)</b>	<p><b>Not mentioned</b></p>
<b>Utility (distributive justice)</b>	<p><b>Minor principle</b>  The guidance does not explicitly state that a maximum utility approach is the one that is being used to justify the continued presence of defences “<i>In low-lying, undeveloped coastal areas, options for coastal defence may include a policy of managed retreat. In such areas it should not be presumed that it will be economically justified to maintain the existing coastal defence. Planning policies should take this into account.</i>” [p11]</p>
<b>Intergenerational equity</b>	<p>The policy aims to prevent future generations from having to pay to protect past development, by advocating a sustainable approach....</p> <p><i>“New development should not generally be permitted in areas which would need expensive engineering works, either to protect developments on land subject to erosion by the sea or to defend land which might be inundated by the sea. There is also the need to consider the possibility of such works causing a transfer of risks to other areas. [p10]”</i></p> <p>...and a precautionary approach  <i>A precautionary approach is also required for policies relating to land affected, or likely to be affected, by erosion or land instability. In the case of receding cliffs, development should not be allowed to take place in areas where erosion is likely to occur during the lifetime of the building. These areas should be clearly identified and mapped, and shown in development plans.</i>[p11]</p> <p><i>It may be appropriate to restrict development in such areas pending decisions on coastal defence, so that options remain open. [p11]</i></p> <p>The policy also argues that the preferred option for managing the coastline may change.</p> <p><i>In low-lying, undeveloped coastal areas, options for coastal defence may include a policy of managed retreat. In such areas it should not be presumed that it will be economically justified to maintain the existing coastal defence. Planning policies should take this into account. [p11].</i></p> <p>This raises issues for intergenerational equity. Firstly, A change in the decision whether to continue to defence would mean that unsustainable protection could be prevented and would mean that future generations would not have to pay for the continuing these defences. However, conversely for those who have been defended or for development that have been built, this change in management approach might have seemed as unfair.</p>
<b>Other information</b>	<p>National planning guidance for the coastline is set out in PPG20 "Coastal Planning". This recognises the need to conserve and improve the coastal environment for its special landscape characteristics and states that coastlines should be safeguarded against development which does not need a coastal location. Coastlines generally include landscape features which are of particular national or international significance and Local Plans should consider defining Coastal Zones where specific measures can be implemented to guide future development.</p>

**Table 22: The rollback of caravan and holiday home parks from the eroding East Yorkshire coastline**

<b>Document</b>	<b>The rollback of caravan and holiday home parks from the eroding East Yorkshire coastline (East Riding of Yorkshire Council, August 2003)</b>
<b>Equality (procedural justice)</b>	<p><b>Major principle/Minor principle/not mentioned</b> All those with the same risk profile, i.e. that will be effected within the next 100 years are included within the policy</p> <p>Caravan park owners were consulted during the development of the strategy <i>The remaining sites...have been visited, and discussions held with the owners or site managers. Only six out of the 24 sites could not be dealt with in this way, and were contacted with a questionnaire, to which 5 responded.</i>[p2]</p> <p>Outcome equality with regard to erosion rates may be affected by the degree of intervention at the coastline <i>Thus there is a complex pattern of impacts due to coastal protection works on nearby land - a very local sustainability issue, whereby development seeking to protect one asset may have detrimental effects on adjacent assets. This affects the "level playing field" on which natural processes would otherwise act along the coast.</i>[p6]</p>
<b>Vulnerability (distributive justice)</b>	<b>Not mentioned</b>
<b>Utility (distributive justice)</b>	<p><b>Minor principle</b> Although not explicit the principle of maximum utility at an individual level is occurring as caravan owners weigh-up their own costs and benefits</p> <p><i>For each site undertaking rollback or relocation, there will be a very large capital outlay and loss of income to be incurred over the transitional period. Without question, the economics of such proposals are prohibitive to small sites operating at the lower end of the market.</i> [p13]</p> <p><i>the economic implications of a planned retreat of cliff top caravan sites will have to be factored into the equation which also covers environmental and community issues, and the way in which the planning policy framework evolves to be able to assimilate these considerations.</i>[p11]</p>
<b>Intergenerational equity</b>	<p><i>Roll-back of caravan sites and holiday parks from the zone at risk from coastal erosion could have a range of sustainability benefits. These should include increased security for businesses, improved quality of tourist provision (leading to greater competitiveness), and a reduction in the likelihood of future demands for coastal protection works.</i> [p6]</p> <p>Past mistakes have been recognised as the new policy advocates that if roll-back occurs, <i>"any current coastal protection works associated with the existing site are removed"</i> [p27] and the longer timeframe is considered <i>"the whole of the resultant site would no longer be at risk within 100 years."</i> [p27]</p>
<b>Other information</b>	<p>The use of public money for financing the scheme and the fairness and inequity of doing this was examined – however this finance was never really forthcoming and therefore it is difficult to assess this, although the policy document does consider these notions. If finances were available it was to be used to <i>"assist in the realisation specific aspects of rollback proposals which facilitate tangible public benefits."</i> Including such things as the removal of sea defences to restore the natural coastal processes or the establishment of safe public access to the cliff top.</p>

**Table 23: The ‘Roll back of residential and agricultural dwellings at risk from coastal erosion in the East Riding of Yorkshire**

<b>Document</b>	<b>The ‘Roll back of residential and agricultural dwellings at risk from coastal erosion in the East Riding of Yorkshire (East Riding of Yorkshire Council, 2005)</b>
<b>Equality (procedural justice)</b>	<b>Major principle/Minor principle/not mentioned</b> All those with the same risk profile, i.e. that will be effected within the next 50 years are included within the policy <i>“Proposals for the replacement of residential dwellings considered to be at risk from coastal erosion within the next 50 years will be permitted”</i> [p9].
<b>Vulnerability (distributive justice)</b>	<b>Major principle/Minor principle/not mentioned</b> [Put in quotes which illustrate evidence]
<b>Utility (distributive justice)</b>	<b>Major principle/Minor principle/not mentioned</b> Agrees with the approach adopted by the SMP and therefore is advocating the approach to defence assessment developed there <i>“The Shoreline Management Plan (SMP) for the East Riding provides a large scale assessment of the risks associated with coastal processes and presents a policy framework to reduce these risks to people and the developed and natural environment in a sustainable manner.”</i> [p2]
<b>Intergenerational equity</b>	The document takes a long-term perspective <i>“Emphasis is being placed upon strategies such as ‘roll back,’ because hard-engineered coastal defences are not considered to be economically viable or environmentally sustainable for protecting all development in the coastal zone.</i> [p2]  The guidance also offers opportunities to promote more sustainable patterns of development and to reduce the dispersed nature of households along the coast through the necessity for properties to relocate adjacent to existing development as well as ensuring that these developments will not be threatened within the next 100 years.  In order to secure more sustainable patterns of development, this will be in the form of replacing the dwelling on a site that is judged to have a life expectancy of at least 100 years: v. within the development limit,* or adjoining it, of a settlement within the Coastal Zone**; vi. within or adjoining the built up area of a smaller settlement (that does not have a development limit) within the Coastal Zone.

**Table 24: Shoreline Management Plan – Sub cell 2a/2b**

<b>Document</b>	<b>Shoreline Management Plan – Sub cell 2a/2b (Humber Estuaries Coastal Authorities Group, April 1998)</b>
<b>Equality (procedural justice)</b>	<b>Minor principle</b> Each of the 18 management units is examined in their own right using the same process. <i>The process used to judge whether or not a strategy is economically viable is based upon the standard requirements of any public sector funded initiative.</i> [p14] Therefore, it might be argued that there is procedural justice evident here although the preferred management options might be different and therefore there will not be outcome equality.  <i>Consultation on the draft SMP has included a four week consultation period for interest groups and parties, a four week consultation period for the general public (following a public advertisement in a local newspaper) and a presentation to the East Riding of Yorkshire Council. The draft SMP was also considered by the Traffic and Transportation Committee of North East Lincolnshire Council. The comments received here have been considered and appropriate changes have been incorporated into the final SMP.</i> [p2]

<b>Vulnerability (distributive justice)</b>	<b>Not mentioned</b>
<b>Utility (distributive justice)</b>	<p><b>Major principle</b>  <i>Based on the SMP it is anticipated that individual operating authorities will develop scheme strategy plans where applicable for the Management Units within their area of responsibility. These scheme strategies will provide the opportunity to undertake a more detailed assessment of the preferred strategic coastal defence policy option chosen for each Management Unit and will detail a rigorous examination of all of the options including benefit cost analyses in line with the Ministry’s Flood and Coastal Defence ‘Project Appraisal Guidance Notes’ (MAFF, 1993) [p3].</i></p> <p><i>Finite life defences option will only be suitable where there is a technical, economic and environmental justification for such temporary works. [p11].</i></p> <p><i>In order to establish the economic viability of any proposed coastal defence strategy necessary to follow a methodology which allows for the calculation of the flood or erosion loss to be suffered [p14]</i></p> <p><i>The process used to judge whether or not a strategy is economically viable is based upon the standard requirements of any public sector funded initiative. [p14]</i></p> <p><i>The outline economic appraisal for the HECAG SMP considered only tangible assets (property, land and infrastructure) which can be readily quantified (both in number, acreage and economic terms) however it is recognised that there is scope to form a basis on which to value nature conservation interests, recreational benefits associated with coastal defences and other indirect benefits. [p165]</i></p>
<b>Intergenerational equity</b>	<p><i>Stepping back to take a strategic overview in the way promoted by the shoreline management planning philosophy, and considering the coastline as a whole rather than simply investigating the effects of a particular local scheme should allow future strategic level problems to be reduced or avoided. [p7]</i></p> <p><i>Applying the precautionary principle to the Holderness coastline would therefore suggest that, until we have sufficient information, knowledge and understanding to indicate otherwise, we should ensure that the natural processes currently operating are able to continue without significant interference wherever possible. [p9]</i></p> <p><i>The SMP is intended to provide guidance to those involved in coastal defence planning in the long term. This is interpreted as relating to a period of fifty years or more. [p13]</i></p> <p><i>If the option under review does not, and will not in the future, interfere with or otherwise compromise the natural processes operating, it is judged to satisfy this objective (compatible with the processes at work within the sediment cell) [p16].</i></p>
<b>Other information</b>	<p><i>This document was never fully approved by the authorities – though the ICZM states that “the SMP (which is the responsibility of the Humber Estuary Coastal Authorities group), and its forthcoming review, will remain the coastal defence plan for the coastal cell in which the East Riding coastline is situated.” [p5]The SMP states that to provide protection against flooding or erosion in a manner consistent with (or where necessary informing) relevant policies and objectives established within the planning framework, and in other relevant management planning initiatives.[p17] This highlights the importance of other planning documents in the long term implementation of the recommendations of the SMP.</i></p> <p><i>Purpose of the SMP – It is a framework which provides guidance on future coastal defence decision making. It does not replace the more detailed studies which would normally be undertaken for Strategy Studies for each Management Unit or indeed scheme specific studies, but these will still be within the overall context of the SMP.[p24]</i></p>

**Table 25: East Riding Integrated Coastal Zone Management Plan**

<p><b>Document</b></p>	<p><b>East Riding Integrated Coastal Zone Management Plan (East Riding of Yorkshire Council, 2002)</b></p>
<p><b>Equality (procedural justice)</b></p>	<p><b>Major principle (in terms of equality of process and consultation of the approach)</b></p> <p><i>The first moves to take a new approach were taken by East Riding of Yorkshire Council, a policy being adopted to move towards an integrated approach to coastal management in partnership with key stakeholders. At the same time it was recognised that the real or perceived conflicts that exist on the coast could be resolved through a more inclusive approach.[p3]</i></p> <p><i>The task of addressing some of these complex issues is not a light one and we recognise the importance of our partners in implementing the plan. [p5]</i></p> <p><i>The first stage of the ICZM process was to form a steering group made up of key stakeholders representing tourism, agriculture, industry, statutory agencies and town and parish Councils... The second stage involved consultation with organisations, groups and individuals through themed workshops. These were for Parish/Town Councils, Fisheries, Environment/Conservation, Fisheries/Marine, and the Tourism/Private sector. [p6]</i></p> <p><i>The development of a Coastal Forum will provide the means for this public accountability...A Coastal Forum provides a mechanism for open and informed discussion, for resolving conflict, whether perceived or real and for involving all sectors and communities in decision making.[p10]</i></p> <p><i>The Council and its partners are committed to an open, inclusive and ongoing process that enables all to have an input into decision making on the coast. To ensure this a Coastal Forum will be set up. This will, it is hoped, become a “champion” for the East Riding coast and provide a mechanism for open debate and discussion so that management of the coast can be based on consensus. The Forum will be open to anyone with an interest in the coast and will also provide an information network to ensure that all have access to technical or general information relating to coastal management. The Forum will also provide the means of public scrutiny for the organisations charged with implementing actions in the plan. [p100]</i></p> <p><i>The ICZM mentions other mechanisms that might be introduced to try to ensure ‘fairer’ outcomes for those properties that are not defended through some degree of compensation The need for a national policy for the coast that takes full account of the issues of “roll-back” and compensation is recognised and any moves towards this will be supported. While compensation measures are supported in principle, it is also recognised that blanket compensation would never be appropriate or feasible. However, compensation where there has been a material change in circumstance (such as the removal of defences), should be considered. [p21]</i></p>
<p><b>Vulnerability (distributive justice)</b></p>	<p><b>Major principle/Minor principle/not mentioned</b></p> <p><i>The geography of the coast means that coastal communities are often more isolated and suffer social exclusion to a greater extent than similar communities inland. The aims of this plan are twofold, therefore – to focus activities that are already being undertaken, ensuring these are integrated, and to highlight additional activities and actions that could be undertaken to help meet the challenge of ensuring a sustainable future for the coastal zone. [p6]</i></p>
<p><b>Utility (distributive justice)</b></p>	<p><b>Minor principle</b></p> <p><i>It has been acknowledged in the ICZM that an economic cost-benefit approach is the main way in which management decisions are being made – however within this document the process or outcomes are only briefly discussed as the focus is on a more integrated approach</i></p> <p><i>There is current concern that this approach to valuation does not include all the impacts that are associated with flood and coastal defences.[p18]</i></p>

	<p>Although it has been stated that the SMP was given Ministry support. In addition the ICZM states that they welcome the revision of benefit-cost criteria to include intangibles and the new SMP guidance which requires a longer timeframe to be examined.</p> <p><i>Any guidance developed in relation to “roll-back” of caravan parks or other businesses will take full account of any possible social or economic impact on coastal communities.[p20]</i></p>
<b>Intergenerational equity</b>	<i>It is essential that this is done in an integrated manner and that social, economic and environmental factors are all taken into account. As such this is a plan for a sustainable coast.[p2]</i>
<b>Other information</b>	<i>East Riding Councillors and those that live and work along the coast were disappointed that the Shoreline Management Plan (SMP) did not recognise or address the concerns of the communities and businesses in the coastal zone.[p2]</i>

**Table 26: Revised local development scheme 2007 – 2011**

<b>Document</b>	<b>Revised local development scheme 2007 – 2011 (East Riding of Yorkshire Council, June 1997)</b>
<b>Equality (procedural justice)</b>	<p><b>Minor principle</b></p> <p><i>A key objective of the new Local Development Framework system is to enhance community involvement in planning.[p10]</i></p> <p><i>The approach the Council will take to stakeholder and community involvement for each Local Development Document is that initial consultation will be undertaken with specific groups, including relevant statutory stakeholders, prior to wider consultation on the subsequent preferred options. [p10]</i></p>
<b>Vulnerability (distributive justice)</b>	<b>Not mentioned</b>
<b>Utility (distributive justice)</b>	<b>Not mentioned</b>
<b>Intergenerational equity</b>	<b>Not mentioned</b>
<b>Other information</b>	<p>This is a precursor to all of the development information being included within the Local Development Framework; its aim is</p> <ul style="list-style-type: none"> <li>▪ to inform the community and other partners of the Local Development Documents that will make up the Local Development Framework for the area and the timescales they can expect for their preparation and subsequent review, and</li> <li>▪ to establish the Council's priorities for the preparation of the Local Development Documents and their associated work programmes, including in relation to budgeting and resources.</li> </ul>

**Table 27: East Yorkshire Borough Wide Local Plan**

<b>Document</b>	<b>East Yorkshire Borough Wide Local Plan (East Riding of Yorkshire Council, June 1997)</b>
<b>Equality (procedural justice)</b>	<p><b>Minor principle</b></p> <p>The document was subject to public and other stakeholder consultation.</p>
<b>Vulnerability (distributive)</b>	<b>Not mentioned</b>

justice)	
Utility (distributive justice)	<p><b>Minor principle</b>  <i>Policy CZ3 – Sea defences on the Holderness Plain</i>  <i>Within the defined Holderness plain coastal area proposals will not be permitted for the protection of land or temporarily occupied property. Where permanent, occupied property is at serious risk of loss, defence measures will only be permitted where it is demonstrated that there are no suitable opportunities available for relocation and the scheme is technically, economically and environmentally acceptable.</i></p>
Intergenerational equity	<b>Not mentioned</b>
Other information	<p><i>The general objectives in relation to planning in the coastal zone are:</i></p> <ul style="list-style-type: none"> <li>• <i>To recognise the long term nature and importance of physical processes affecting the coastline and their significance to the coastal cell;</i></li> <li>• <i>To ensure that essential development is adequately sited to be protected from anticipated rates of coastal erosion;</i></li> <li>• <i>To safeguard the character of the landscape and protect nature conservation interests;</i></li> <li>• <i>To promote public enjoyment and appreciation of the coastal zone.</i>[13.5]</li> </ul> <p><i>“until comprehensive measures for the protection and management of the coastal cell are agreed, the Local Plan embodies a principal of “managed retreat”, or setting back the line of defence, to allow the coastline to form its own natural defence to the sea. To assist implementation of this principle the Local Plan policies and allocations will enable the relocation of property and businesses at risk”.</i>[CZ3 13.43]</p> <p>Guiding the position of properties that have rolled back is the following principle.  <i>“Replacement Dwellings in the Open Countryside Proposals for the replacement of an existing dwelling in the open countryside will be permitted where they form part of a group of houses. Elsewhere proposals will only be permitted where the previous residential use has not been abandoned. In all cases, proposals will only be acceptable where they are of a similar size to the existing dwelling to be replaced and will be of a design and character to reflect the surrounding area. [H4]</i></p>

**Table 28: Holderness District Wide Local Plan**

Document	<b>Holderness District Wide Local Plan (East Riding of Yorkshire Council, April 1999)</b>
Equality (procedural justice)	<p><b>Minor principle</b>  <i>This is achieved through the preparation of development plans which are prepared following a statutory process of public consultation and debate. Development Plans are intended to provide a firm basis for rational and consistent decisions on planning applications and appeals and provide all concerned with a measure of certainty about what types of development will and will not be permitted. [1]</i></p>
Vulnerability (distributive justice)	<b>Not mentioned</b>
Utility (distributive justice)	<p><b>Major principle</b>  <i>In situations where existing concentrations of development or natural resources are threatened by coastal erosion the Council may allow defence works to be constructed. Within Holderness the main coastal resorts of Hornsea and Withernsea are already protected by a series of sea defences in the form of groynes. The Council will ensure the proper maintenance of these defences and may enhance their provision if it is seen as being within the national interest. [ENV5 2.1.51]</i></p> <p><i>In order to assist the natural physical and environmental features of the coastline, the Council will pursue a policy of ‘do nothing’. Within this process there may be circumstances where defence works are considered acceptable. These would normally include the protection of concentrations of population from the effects of</i></p>

	<p><i>erosion or flooding, or the protection of strategically important industrial or commercial facilities. [ENV 2.1.53</i></p> <p><i>In advance of a Shoreline Management Plan the Council will only support works to protect either:</i></p> <ol style="list-style-type: none"> <li><i>1. Assets of national or strategic importance, or</i></li> <li><i>2. Significant settlements which are at risk from coastal erosion; provided technically, environmentally and economically sound and sustainable measures are proposed and the works are designed to minimise their effect on the natural physical processes of the coast and that they minimise any impact on areas of acknowledged nature conservation importance. [ENV6]</i></li> </ol>
<b>Intergenerational equity</b>	<p>The plan advocates a policy that does not cause more problems for future generations.</p> <p><i>The council will only approve development proposals in the Holderness coastal zone which are not likely during the life expectancy of the development to:</i></p> <ol style="list-style-type: none"> <li><i>1. lead to a requirement to construct new or to extend or enhance existing coastal</i></li> <li><i>2. protection or flood defences</i></li> <li><i>3. interfere significantly with natural coastal or estuarine processes;</i></li> <li><i>4. increase the risk of flooding and coastal erosion on site or elsewhere;</i></li> <li><i>5. be affected by the risk of coastal erosion within the developments estimated lifespan;</i></li> <li><i>6. conflict with nature conservation policies of this plan</i></li> <li><i>7. preclude reasonably practical options to conserve or enhance important habitats by managed retreat or soft engineering techniques</i></li> </ol> <p><i>Small scale extensions to existing development will be permitted providing the whole development meets the life expectancy criterion. [ENV5]</i></p> <p><i>In the developed coast...the Council will allow development in accordance with policy Env. 5 and the relevant policies applying to the specific location. Development will be required to maintain or improve the attractiveness of the local environment and complement the character of the area. Development will not be allowed to extend laterally along the cliff top outside existing coast defences [ENV 7]</i></p> <p><i>In the undeveloped coastal zone no development will be allowed to encroach within 30 metres of the cliff edge. Between 30 metres and the coastal zone boundary development of a generally open nature, extensions to or the conversion of existing buildings or structures may be permitted. Development of a temporary nature may also be permitted on the basis of a temporary planning permission and subject to its removal before it is affected by erosion. Where the developer is able to demonstrate that the development has specific locational requirements that make the location outside the coastal zone inappropriate, new development may be permitted within the coastal zone beyond 200 metres of the eroding cliff. [ENV8]</i></p>
<b>Other information</b>	<p>It is important to note that the approach of roll-back is not mentioned within this plan (although the roll-back policies that have been adopted do post date this plan) and the new East Riding plan should ensure a more consistent approach.</p>

**Table 29: Planning Policy Statement 7: Sustainable development in rural areas**

<b>Document</b>	<b>Planning Policy Statement 7: Sustainable development in rural areas (ODPM, 2004)</b>
<b>Equality (procedural justice)</b>	<p><b>Minor principle</b></p> <p>The presence of this document at a national level suggests an aim of equality across different rural areas.</p> <p>There is a clear process of planning application and appeal for development in rural areas and therefore if the process is followed at the local level there should be</p>



	<p>procedural equity.</p> <p>There is much guidance in the documentation about ensuring sustainable planning decisions and guidance about where development should, and should not be allowed. However, it also to some extent permits local discretion in planning decisions. <i>Very occasionally the exceptional quality and innovative nature of the design of a proposed, isolated new house may provide this special justification for granting planning permission.</i>[p10]. Although in principle this may be a sensible approach, however it might raises questions of procedural equity and different types of development being treated differently.</p> <p><i>Major development proposals should be demonstrated to be in the public interest before being allowed to proceed.</i> [p14] – this again raises questions about equity and why some developments are permitted to proceed and others are prevented who decides what is in the national interest.</p>
<b>Vulnerability (distributive justice)</b>	<b>Not mentioned</b>
<b>Utility (distributive justice)</b>	<b>Not mentioned</b>
<b>Intergenerational equity</b>	<p><i>Decisions on development proposals should be based on sustainable development principles, ensuring an integrated approach to the consideration of:</i></p> <ul style="list-style-type: none"> <li>– <i>social inclusion, recognising the needs of everyone;</i></li> <li>– <i>effective protection and enhancement of the environment;</i></li> <li>– <i>prudent use of natural resources; and</i></li> <li>– <i>maintaining high and stable levels of economic growth and employment.</i> [p7]</li> </ul>

**Table 30: South Felixstowe Coastal Strategy: Strategic Appraisal Report**

<b>Document</b>	<b>South Felixstowe Coastal Strategy: Strategic Appraisal Report (Environment Agency, December 2007)</b>
<b>Equality (procedural justice)</b>	<p><b>Minor principle</b></p> <p>The equality principle is not mentioned but it can be argued that it is a minor principle underlying the use of the Defra's Project Appraisal Guidance notes (FDCPAG) and prioritisation system. This ensures that all those at risk nationally are subject to the same decision processes.</p> <p><i>'The flood defence and coastal protection options have been appraised on technical, economic and environmental grounds in accordance with Defra's Project Appraisal Guidance notes (FCDPAG).'</i></p> <p>In terms of procedural justice, efforts to consult and inform are reported.</p> <p><i>' Consultation has been undertaken throughout the development of the scheme with internal Environment Agency specialists, statutory consultees, interested groups and the public. The feedback to the preferred option has been positive. Natural England has provided a comfort letter giving its support to this scheme,'</i> (Para.1.6.5)</p> <p>A fuller description of the consultation process in relation to the Strategic Environmental Assessment (SEA) is given in Section.2.6.7</p>
<b>Vulnerability (distributive justice)</b>	<p><b>Minor principle</b></p> <p>Vulnerability is not explicitly mentioned but is addressed in a limited way in the decision processes, the results of which are reported in the document through the 'people' score in the prioritisation and through the application of distributional impact weighting. In addition, the Outcome Measures being developed by Defra in 2007 are considered in this report These include a sustainable development measure SD4 based on the government's Index of Multiple Deprivation. As the study area was not 'deprived' according to the criteria used, this measure had no effect in this case.</p>
<b>Utility (distributive justice)</b>	<p><b>Major principle</b></p> <p>Maximum utility is the main principle underlying the decision processes described in the document although technical and environmental assessments via a SEA are carried out as part of the appraisal process.</p> <p><i>'Under the improve scenario for the Southern Felixstowe Coastal Strategy, a range of</i></p>

	<p>options has been considered over the appraisal period from a 1 in 50 to 1 in 200 standard of protection including allowances for sea level rise over 100 years. By considering a range of standards of protection, we can ensure that value for money is optimised in terms of benefit-cost analysis'. (Para. 2.3.3.4.)</p> <p>Present value costs and benefits and the benefit cost ratio were the main considerations in deciding on the preferred option in the economic appraisal.</p> <p>'The options considered in the economic appraisal are presented in Table 2.11 which shows the Present Value (PV) benefits and PV costs along with the Net Present Value(NPV) and the Benefit Cost Ratio. The preferred option is highlighted.'</p>
<b>Intergenerational equity</b>	<p>Intergenerational equity is only addressed through appraisal over a 100 year period and through discounting. It is not explicitly mentioned as a social justice principle.</p> <p>'Benefits and costs have been considered over a 100-year appraisal period' (Para.1.5.1)</p>

**Table 31: Project Appraisal Report Felixstowe South Flood Alleviation Scheme**

<b>Document</b>	<b>Project Appraisal Report Felixstowe South Flood Alleviation Scheme (Environment Agency, November 2007)</b>
<b>Equality (procedural justice)</b>	<p><b>Minor principle</b></p> <p>The equality principle is not mentioned but it can be argued that it is a minor principle underlying the use of the Defra's Project Appraisal Guidance notes (FDCPAG) and prioritisation system.</p> <p>In terms of procedural justice, efforts to consult and inform are reported.</p> <p>' Consultation has been undertaken throughout the development of the scheme with internal Environment Agency specialists, statutory consultees, interested groups and the public. The feedback to the preferred option has been positive. Natural England has provided a comfort letter giving its support to this scheme,' (Para.1.6.5)</p>
<b>Vulnerability (distributive justice)</b>	<p><b>Minor principle</b></p> <p>Vulnerability is not explicitly mentioned but is addressed in a limited way in the decision processes reported in the document through the 'people' score in the prioritisation and through the application of distributional impact weighting in the benefit cost analysis.</p>
<b>Utility (distributive justice)</b>	<p><b>Major principle</b></p> <p>Maximum utility is the major principle underlying the processes described in the document although technical and environmental assessments via Strategic Environmental Assessment (SEA) are carried out as part of the appraisal process.</p> <p>Present value benefits and costs and net present value are used to make the economic case for the preferred option.</p>
<b>Intergenerational equity</b>	<p>Intergenerational equity is only addressed through appraisal over a 100 year period and through discounting. It is not explicitly mentioned as a social justice issue.</p> <p>'Benefits and costs have been considered over a 100-year appraisal period' (Para.1.5.1)</p>

**Table 32: Southern Felixstowe Coastal Strategy Review: Strategy Assessment and economic appraisal**

<b>Document</b>	<b>Southern Felixstowe Coastal Strategy Review: Strategy Assessment and economic appraisal (Black and Veatch for the Environment Agency, 2007)</b>
<b>Equality (procedural justice)</b>	<p><b>Minor principle</b></p> <p>The equality principle is not mentioned but the use of the Defra's Project Appraisal Guidance notes (FDCPAG) and prioritisation system aims to ensure that nationally consistent and relatively transparent procedures are applied.</p>
<b>Vulnerability (distributive justice)</b>	<p><b>Minor principle</b></p> <p>The Economic Assessment has a section (Para. 2.3.5) on 'Social Equity' explaining how and why a weighting factor based on social class was calculated and used in</p>

	<p>the assessment.</p> <p><i>'Different project options have potential to have different impacts on individuals, particularly according to their income. FCDPAG3 and the Treasury Green Book (HM Treasury, 2003) advise on the incorporation of social equity considerations in flood and coastal defence appraisals through Distributional Impacts (DI) analysis.'</i></p> <p>Vulnerability is also included in the 'people score' in the priority scoring system. In addition, the Outcome Measures being developed by Defra in 2007 are considered in the Review. These include a sustainable development measure SD4 based on the government's Index of Multiple Deprivation. However, neither of these measures had any impact as the study area was not 'deprived' according to the criteria.</p> <p><i>'SD4 – Deprived communities at risk of flooding or coastal erosion: None of the 1,500 most deprived wards are within the Southern Felixstowe study area'</i> (Table 1.15 in the Strategy Assessment).</p>
<b>Utility (distributive justice)</b>	<p><b>Major principle</b></p> <p>The Strategy Assessment provides a broad overview of the Southern Felixstowe Coastal Strategy as well as separate assessments for five sections of the Strategy's coast. All of these cover economic, technical and environmental assessments via Strategic Environmental Assessment (SEA). However maximum utility is the most important principle underlying the decision processes described in the document and the Economic Appraisal not surprisingly focuses on this principle.</p> <p><i>'Details of the economic appraisal undertaken for the strategy can be found in the Economic Appraisal Report (B&amp;V, November 2007). The economic appraisal has been undertaken in accordance with Defra's Flood and Coastal Defence Project Appraisal Guidance On Economic Appraisal (FCDPAG3) and Approaches to Risk (FCDPAG4) plus any subsequent updates to these documents (Para. 5.5.3)</i></p>
<b>Intergenerational equity</b>	<p>Intergenerational equity is only addressed through appraisal over a 100 year period and through discounting. It is not explicitly mentioned as a social justice issue, However, the Economic Analysis reports on special consideration given to the issue of sea level rise and climate change over the 100 year period (Para.5.3)</p>

**Table 33: Central Felixstowe Coastal Strategy Assessment**

<b>Document</b>	<b>Central Felixstowe Coastal Strategy Assessment (Halcrow Group Ltd for Suffolk Coastal District Council, July 2007)</b>
<b>Equality (procedural justice)</b>	<p><b>Minor principle</b></p> <p>The equality principle is not mentioned but the use of the Defra's Project Appraisal Guidance notes (FDCPAG) and prioritisation system aims to ensure that nationally consistent and relatively transparent procedures are applied. The SEA processes require consultation on options with regard to their environmental impacts.</p> <p><i>'Consultation is undertaken with the aim of agreeing the objectives with a wide variety of stakeholders, and ensuring that the strategy is environmentally sustainable.'</i> (Para. 8.1)</p> <p><i>'The (SEA) objectives were the subject of detailed consultation with groups ...'</i> (Para. 8.3.5)</p>
<b>Vulnerability (distributive justice)</b>	<p><b>Minor principle</b></p> <p>Vulnerability is not considered except in that it can be assumed that distributional impact will have been considered in the decision process. The prioritisation scoring system includes a vulnerability score derived from the Multiple Deprivation Index. However, the central Felixstowe area did not attract any points on this basis.</p>
<b>Utility (distributive justice)</b>	<p><b>Major principle</b></p> <p>While technical and environmental assessments form part of the strategy, the economic assessment through benefit cost analysis embodying the maximum utility principle is the key process reported.</p> <p><i>'For strategic purposes, if the BCR is less than unity, the scheme will not be cost effective and alternatives with a lesser whole life should be sought. If an option has a BCR greater than 3 it is probable that protection will be economically justified and detailed studies are warranted, subject to schemes satisfying appropriate environmental considerations.'</i> (Para 4.6)</p>
<b>Intergenerational equity</b>	<i>'The recommended strategy reflects long term planning. However, it is recognised that the long term strategy might be modified in the future to reflect changing</i>

	<p><i>circumstances , which cannot be fully identified at this stage, or issues that will not arise for some decades..... The strategy time frame has been at 100 years. This is consistent with national government criteria for assessing the economic viability of schemes.’ (Para. 9.1)</i></p>
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**Table 34: Project Appraisal Report, Sussex Ouse Flood Management Strategy 2004 Update**

<b>Document</b>	<b>Project Appraisal Report, Sussex Ouse Flood Management Strategy 2004 Update (Environment Agency – Southern Region 2004)</b>
<b>Equality (procedural justice)</b>	<p><b>Minor principle</b> The use of the Defra’s Project Appraisal Guidance notes (FDCPAG) and prioritisation system as reported in this document ensures that all those at risk nationally are subject to the same decision processes. The document details the processes and mechanisms use to consult and inform key stakeholders and the public during the development of the strategy (Para. 1.5)</p>
<b>Vulnerability (distributive justice)</b>	<p><b>Minor principle</b> Vulnerability is not mentioned in this document and is only addressed in a very minor way through the application of the ‘people score’ within the prioritisation system which includes a vulnerability adjustment. However, there is no evidence presented to indicate that this adjustment had any influence on the ‘people score’ and the overall prioritisation score in the Lewes case.</p>
<b>Utility (distributive justice)</b>	<p><b>Major principle</b> ‘This 2004 update has been prepared using the Defra Flood and Coastal Defence (FDC) Project Appraisal Guidance documents especially those relating to strategies, economics and risk (PAG2, PAG3 and PAG4), relevant Agency Guidance, specifically relating to the preparation so Strategic Environmental Assessment (SEA) and Defra approved methodology for assessing flood damages and PVs.’ (Para. 2.1.2)</p>
<b>Intergenerational equity</b>	<p>Intergenerational equity is not mentioned as such and is only addressed as follows: ‘The Whole Life costs and benefits have been calculated for a 100-year appraisal period using the new HM Treasure ‘Green Book’ discount rates...’</p>

## **Appendix 6      Interview proforma for case study stakeholders**

### **A.      BACKGROUND**

1.      What are the stated objectives of the project (scheme, programme etc)?
2.      How, when and why did this project get started? What was the previous situation? Why were other approaches/schemes rejected?
3.      What is/was the time frame for the project (start and end dates)?
4.      How and when did you/your organisation get involved?
5.      What is the geographic area/scale of the project? How and by whom were the boundaries determined?
6.      What national policy and guidance and other documents if any are relevant to this project?
7.      What regional/local documents are relevant to this project e.g. RSS, LDF, SMP, CFMP

### **B      FUNDING**

8.      How much will the project cost?
9.      How will/is it being funded?
10.     Who benefits directly/indirectly?
11.     *Do you think this is fair and why?*

### **OVERALL FAIRNESS (i.e overall view unprompted)**

12.     *In your view, what, if any, are/were/will be the main fairness issues raised by the project?*

### **Process fairness overall**

13.     *Overall, in your view, how fair or unfair are/ were/will the decision processes in the project be?*

14. *Why is that?*
15. *What would make/ have made the processes fairer? How might things be done differently in your view? What barriers are there to this?*

### **Outcomes fairness overall**

16. *Overall, in your view, how fair or unfair are/ were/will the outcomes of the project be?*
17. *Why is that?*
18. *What would make/ have made the outcomes fairer? Or How might things be done differently in your view? What barriers are there to this?*

## **C DECISION PROCESSES**

### **Stakeholders**

19. *Which stakeholders are/were responsible for making decisions in this project?*
20. *Which of these were the most important to the decisions made?*
21. *Are/were these the right stakeholders or should others have been responsible for the decision making?*
22. *In what ways do you think this will / has affected the fairness of the process and outcome of project*

### **Options**

23. *Who decides/d on the range of options available through the project?*
24. *In your view, who should decide on the range of options? Why?*

### **Transparency**

25. *How open and transparent is/was the project in making information available to stakeholders and public?*
26. *In your view should the project have been more or less open and transparent?*

## **Consultation and engagement**

27. What processes of consultation and engagement in the project are/were there for stakeholders and public?
28. *Are/were these sufficient?*
29. Did/will all those at risk have an equal opportunity to participate in consultation and engagement activities?
30. *Should equal opportunities to participate have been provided to all at risk?*

## **Vulnerable groups**

31. What, if any, special efforts made to ensure that the 'vulnerable' or hard to reach groups are/were involved in the project consultation and engagement?
32. *Should such special efforts be/ have been made and why?*

## **Information and bias**

33. *Do you think that the information available as a basis for decision making is/was adequate/good enough or inadequate/ not good enough? Can you give some/an example?*
34. *Do you think that the decision processes are/were subject to any political influence? Please explain?*

## **D OUTCOMES**

### **Equal outcomes**

35. Were/will the outcomes be different for different areas or people?
36. *In your view, is that fair or unfair? Why?*

### Targeting the 'most vulnerable'

37. Does/did the project target resources to the most vulnerable? If so, who, how were they defined and how? E.g. SFVI, or distributional weights?
38. *Should 'vulnerable groups' be targeted? Or should they not? Why?*

### Maximum utility

39. Did/will the project adopt a cost benefit approach /involve cost benefit analyses at any stage?
40. *Should a cost benefit approach have been/ be used? Or should it not? Why?*

### Intergenerational equity and other issues

41. Have future generations been accounted for in any way in the project?
42. *Should more or less consideration be/have been given to future generations in the project? Why?*
43. **Finally**, are there any other issues relating to the fairness or otherwise of the project that you would like to raise?





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