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## Executive Summary

7. The executive summary must not exceed 2 sides in total of A4 and should be understandable to the intelligent non-scientist. It should cover the main objectives, methods and findings of the research, together with any other significant events and options for new work.

### Background

'Socially just' government policy is a key component of sustainable development (HM Government, 2005) and of Defra's Making Space for Water vision (Defra, 2004; 2005). At present, there is no clear understanding of what is 'socially just' Flood and Coastal Erosion Risk Management (FCERM). This research provides 'first insights' in this regard. From the philosophical literature in this area, FCERM policy and practice was examined using three models of fairness: maximum utility, equality and vulnerability (see table below).

Justice principle	Fairness rule	Meaning for FCERM
<b>Equality</b>	<b>Equality: All citizens should be treated equally</b>	Process: <b>Every citizen should have the equal opportunity to have their risk managed in the decision process</b> Outcome: <b>Resources should be distributed equally according to the risk</b>
<b>Rawls' Maximin rule</b>	<b>Vulnerability: The vulnerable should be prioritised and the FCERM options chosen should be those that favour helping the worst off best.</b>	Process: <b>Positive discrimination rules in the decision process in favour of those regarded as most vulnerable</b> Outcome: <b>Resources should be targeted to the most vulnerable to flooding or erosion (or to the most needy)</b>
<b>Maximum utility</b>	<b>Utility: The units chosen should be those that secure the greatest risk reduction per unit of resource input</b>	Process and outcome: <b>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)</b>

## Research objectives and approach

This research examined the social justice principles embedded in government policy, guidance and practice towards FCERM. Secondly, it examined the fairness attitudes of key stakeholders towards FCERM at national, regional and local levels. Thirdly, it provides insights and recommendations on how fairness concerns highlighted by the research might be addressed in FCERM policy and practice in the future.

The research methods included document analyses, semi-structured interviews and roundtable discussions at the national level. Four case studies were examined at the local level: Lewes flood management strategy; Leeds urban flood risk and integrated drainage; Felixstowe coastal defence strategy; and East Riding coastal erosion management.

## Key findings

**Lack of consistency in social justice approaches.** At present there is no joined-up approach to social justice across government. There are similarly important institutional differences in the application of social justice principles and there are inconsistencies in how inter-generational equity is addressed. Although FCERM is regarded as fairer now than in the past, the tools to enhance this in practice are lacking.

**Utility principles are most widely used.** The model driving much of the FCERM spend, at the national level, is based on utility principles; characterised by high benefit-cost scores, particularly in comparison with other areas of government funding (i.e. roads). Stakeholders considered the allocation of funding to FCERM to be inadequate and unfair and at the heart of FCERM injustices.

**However, utility on its own can be problematic.** The utility approach results in inequality in outcomes and, although national stakeholders generally considered this to be the fairest principle to apply, enthusiasm was tempered by concerns for procedural justice and vulnerability. As would be expected, a proportion of those at-risk regarded the outcome inequality associated with structural flood risk reduction measures to be unfair; particularly where the outcomes result in different standards of protection within communities. An additional unfairness was perceived to exist, at this spatial scale, in the different standards of protection afforded to sewer and fluvial flooding.

**Targeting the vulnerable.** There is scant evidence of decisions being made on the basis of vulnerability principles, other than as an add-on in the utility-dominated appraisal process and in the provision of flood warnings and emergency management. Targeting the vulnerable is not, currently, embodied in the policies and practices towards the provision of insurance, spatial planning, homeowner adaptation, and land use control and management. The vulnerable are not generally seen as adequately accounted for in FCERM decisions, with both national and local stakeholders agreeing, in principle, that a more focused targeting of the flood-vulnerable in FCERM would be fairer. However, the multi-faceted nature of vulnerability was seen as a major barrier to the successful implementation of policy in this regard.

**Transparency of policy and decisions.** Procedural justice is seen as a key issue for FCERM. There is strong ambition for policy and practice to be consistent, neutral, transparent and clear. However, at present, there is a conflict between achieving national consistency and transparency on the one hand, and encouraging stakeholder engagement with 'real' local influence in decision-making on the other. This is a significant barrier to achieving fair FCERM in practice.

**No single model of social justice.** The research has illustrated the multi-faceted nature of social justice and the multi-faceted nature of FCERM. Because of this, there can be no "correct" model of social justice for FCERM. The policy question, therefore, is not: how can different model(s) of social justice inform future FCERM decision-making policy and practice? But, how can we ensure that the range of social justice concerns is adequately accounted for in FCERM policy and practice?

Accounting for social justice concerns in FCERM:

1. There must be an open and transparent account of the weight being applied to different social justice principles in policy, guidance and practice across the range of FCERM options;
2. There needs to be a clear account of the trade-offs that are required in the balancing of requirements for national consistency with those for stakeholder engagement; and
3. The current model of resource distribution which favours the distribution of national resources through the appraisal process (rather than to 'other' FCERM options less easy to appraise) should be re-evaluated; particularly for those who have no equality of opportunity to access this decision process.

## Conclusions and Recommendations

### Headline conclusions:

1. There appears to be value in using the social justice framework we have employed; even though the process and outcome distinctions may be less clearly differentiated than is theoretically suggested. For FCERM to be considered fair, a balanced approach using the following three principles is required:

**Utility:** *'Fair FCERM that seeks (process) and secures (outcome) the greatest risk reduction per unit input'*

**Vulnerability:** *'Fair FCERM that prioritises the vulnerable in the decision process and targets resources in favour of the most vulnerable'*

**Equality:** *"Fair FCERM decisions are those that provide an equal opportunity for every citizen to have their risk managed in the decision process."*

2. Ultimately, what is important is that the social justice principles are transparent and consistently applied; and seen to be so. If the utility model is used in isolation - explicitly say this is the case - it is a fact of life that there will remain those who will always believe that an injustice has occurred. Transparency and consistency will aid communication of the approach adopted and decision made.

**Headline recommendations from this research:** In light of the two headline conclusions, Defra and the EA should

1. Keep under constant review their policy, procedures and funding models, using the framework, to examine the extent to which they embody the social justice concerns highlighted by this research.
2. Explicitly recognise, and actively incorporate, a framework for systematically identifying and evaluating social justice concerns within their decision-making processes and procedures.
3. Review and evaluate decision outcomes with a social justice 'lens' in order to illustrate how social justice concerns are embedded in decision outcomes. This will make social justice less of a theoretical concept but more tangible in terms of outcomes and policy measures.

The evaluation tools will provide the opportunity for Defra and the EA to monitor explicitly how social justice is embedded into policy decisions and outcomes.

## Project Report to Defra

8. As a guide this report should be no longer than 20 sides of A4. This report is to provide Defra with details of the outputs of the research project for internal purposes; to meet the terms of the contract; and to allow Defra to publish details of the outputs to meet Environmental Information Regulation or Freedom of Information obligations. This short report to Defra does not preclude contractors from also seeking to publish a full, formal scientific report/paper in an appropriate scientific or other journal/publication. Indeed, Defra actively encourages such publications as part of the contract terms. The report to Defra should include:

- the scientific objectives as set out in the contract;
- the extent to which the objectives set out in the contract have been met;
- details of methods used and the results obtained, including statistical analysis (if appropriate);
- a discussion of the results and their reliability;
- the main implications of the findings;
- possible future work; and
- any action resulting from the research (e.g. IP, Knowledge Transfer).

## 1. Introduction

### 1.1 Background

The policy framework within which flood and coastal erosion decisions are made has undergone a significant transformation in the last 10-15 years; influenced by both incremental changes in policy, and the catalytic influences of major floods (Johnson *et al.*, 2005). Where previous policy was dominated by a flood defence

doctrine, it is now widely recognised that to achieve sustainable policies for flood and coastal erosion risk management (FCERM), flood defence needs to be supported by a number of non-structural risk management options. Thus, as elsewhere in Europe, the flood doctrine is now concerned not with defending against floods but rather 'living with floods' (ICE, 2001), 'preparing for floods' (ODPM, 2002) and 'living with risk' (UN/ISDR, 2004).

Asking people to 'live with floods' requires a significantly different approach to FCERM than that which preceded it (Table 1.1) And, whilst these changes are welcome, the practical reality of implementing policy, guidance, strategies and decision-tools at regional and local levels which embrace these principles is proving more difficult. The embodiment of principles of sustainability and equity goals asks searching questions concerning whose definitions of *just, fair* and *equitable* FCERM count (Johnson *et al.*, 2007), as does the requirement for managing all forms of flood risk; an issue of particular concern given the knowledge uncertainties and institutional complexities concerning pluvial and groundwater flooding.

**Table 1.1 Key principles underlying the new approach to FCERM**

- Manage risk from all sources of flooding (coastal, fluvial, pluvial, groundwater and sewer flooding);
- Adopt a risk-based approach across catchments requiring better understanding of the integration between risk drivers, sources, pathways and receptors at the catchment scale;
- Seek multi-functional benefits from interventions;
- Broaden the risk management options, decision-making techniques and processes involved to better account for social and environmental consequences;
- Emphasising the social pillar of sustainable development by enhancing the risk management tools available such that decision processes account for social justice and equity issues;
- Enhance our understanding of the social and environmental consequences of FCERM decision-making processes. (Adapted from Penning-Rowsell *et al.*, 2006).

This 'new' approach also asks searching questions concerning: the appropriate mix of state vs. individual responsibility in the management and financing of FCERM; the appropriate nature of current decision tools and guidance to account for social and environmental consequences; and the ability of current decision processes and procedures to fully account for social justice and equity issues.

In some areas the 'new' approach will mean coastal abandonment and/or the removal of any maintenance of flood and coastal defences for those that have previously 'enjoyed' protection funded and maintained by central government finance and bodies. In others, particularly where structural flood defence will never be economically justifiable, it will require the recognition that direct government assistance for flood defence will never be forthcoming; either because the benefits will never justify the costs or because there is no practical flood defence solution that is either technically possible or socially acceptable. For these communities, 'living with floods', 'living with risk' and the need to 'prepare for floods' is either already a reality - or soon to become one.

In such a 'reality driven' context, questions concerning the 'socially just' nature of government decisions, and the processes by which decisions are made, are certain to arise. And, if the findings of the Foresight study (Evans *et al.*, 2004a & b) into future flood risk are actualised then the future is likely to be characterised by a greater number of cost-beneficial schemes coming 'on-stream' - resulting in greater competition for an already over-stretched flood defence budget (Johnson *et al.*, 2006).

Add to this the cross-government requirement under the Aarhus convention for greater access to information, participation and accountability in environmental decision-making and the necessity for decision-makers to justify both the processes by which they make decisions and the outcomes of these decisions will become increasingly more important.

As in other policy arenas (e.g. housing, education, health, transport), FCERM decision-making is about trade-offs in the distribution of funding across society; the aim being to provide the greatest gains for society as a whole whilst recognising the needs and rights of those individuals, households, businesses and communities at risk of flooding and coastal erosion. However, unlike other areas of policy, there have been very few analytical studies investigating what is a fair decision process or what makes for a fair decision outcome; hence the significance and timeliness of the research contained within this report.

## 1.2 Report overview

The research reported on here is concerned with evaluating three key issues. Firstly, it seeks to examine the social justice principles embedded in government policy, guidance and practice towards FCERM. Secondly, it seeks to examine the fairness attitudes of key stakeholders towards FCERM at the national, regional and local

level. And, thirdly, it seeks to provide insights and conclusions concerning the fairness challenges which emerge and how different models of social justice might inform future FCERM decision-making policy and practice.

This summary report is a condensed version of the more comprehensive main report that outlines its findings within four main components. The first section provides an overview of the aims, objectives, methods and conceptual framework used in the study. The second evaluates the fairness principles embedded in the hierarchy of national level policy and guidance documents - including key government-wide documents, Defra and EA policy documents, context specific policy documents (such as those concerned with spatial planning) and the more specific guidance concerned with local/regional decision-making processes (e.g. project appraisal, CFMPs and SMPs). In addition, understanding of the attitudes of key national stakeholders towards the fairness of current and future FCERM is summarised.

The practical implementation of this policy and guidance at the regional and local levels is evaluated in section three. The analysis focuses on the findings from four case studies, each chosen according to the different contextual and fairness issues they embody:

- Lewes: flood defence strategy (river flooding, appraisal)
- Felixstowe: coastal defence strategy (coastal flooding, appraisal)
- Leeds: Defra pilot projects (urban drainage, adaptation)
- East Riding: coastal management strategy (coastal erosion, adaptation)

As with the analysis at the national level, the research at this spatial scale evaluates the fairness principles embedded in key documents and the fairness attitudes of key stakeholders.

The concluding section then seeks insights from the research, with a particular focus on the implications for the EA and Defra. It is important to bear in mind, however, that throughout the report, the analysis does not seek to provide any definitive answers as to what is, and is not, fair FCERM. Rather, it seeks to provide a greater understanding of the social justice principles currently embodied in government policy and guidance and the attitudes of key stakeholders to policy processes and outcomes.

## **2. Conceptual framework**

A commitment to achieving 'socially just' flood and coastal erosion risk management (FCERM) is a key component of sustainable development (HM Government, 2005) and a key component of Defra's Making Space for Water policy vision (Defra, 2004; 2005). To pursue such a commitment requires an understanding of what organisations, communities, individual householders and businesses recognise to be a fair share of the benefits of this management and a fair share of the responsibility for this management. The problem is, determining what a fair share might be requires a coming together of different perspectives. It also requires the recognition of the changing dynamics of these perspectives over time; something of particular importance given the changeable dynamics and drivers influencing flood and coastal erosion risks; over which there is much uncertainty and little direct control (e.g. climate change and sea level rise).

So, why should the management of flood and coastal erosion risks be scrutinised using a social justice lens? The answer is relatively simple: because people differentially benefit, and are differentially burdened by, system interventions across space and time. Thus, we need policies that fairly distribute the benefits and burdens of flood and coastal erosion risks between, and across, generations whilst similarly distributing risk responsibilities 'fairly'.

To step-up to such a challenge requires a consensus over which principles of social justice are most appropriate to apply in this context. A chapter in the main report summarises those theories and principles of social justice which appear, on paper, to offer the greatest explanatory gain. The conclusions are then developed into a framework of social justice in the context of FCERM.

### **2.1 A framework for social justice in the context of FCERM**

Given the move from flood and coastal defence to FCERM, plus the increased emphasis on issues of sustainability and equity, the question now is whether the current approach to FCERM, which prioritises the fair distribution of taxpayer's money on the grounds of economic efficiency, is the most appropriate model of social justice to apply. Or, should decision-makers be seeking a decision-making model which shifts the focus away from fairness for taxpayers towards a model that provides greater emphasis on the fairness concerns of those at risk?

The 'fairness-lens' framework employed in this research (Table 2.1) specifically adheres to the principles of equality, vulnerability (Rawls' maximin rule) and economic efficiency (maximum utility); a further elaboration of which is given below.

**Table 2.1 Simple framework for social justice in the context of FCERM**

<b>Justice principle</b>	<b>Fairness rule</b>	<b>Meaning for FCERM</b>
Equality	<b>Equality:</b> All citizens should be treated equally	<b>Process:</b> Every citizen should have the equal opportunity to have their risk managed in the decision process <b>Outcome:</b> Resources should be distributed equally according to the risk
Rawls' Maximin rule	<b>Vulnerability:</b> The vulnerable should be prioritised and the FCERM options chosen should be those that favour helping the worst off best.	<b>Process:</b> Positive discrimination rules in the decision process in favour of those regarded as most vulnerable <b>Outcome:</b> Resources should be targeted to the most vulnerable to flooding or erosion (or to the most needy)
Maximum utility	<b>Utility:</b> The units chosen should be those that secure the greatest risk reduction per unit of resource input	<b>Process and outcome:</b> 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)

The first – equality – finds its roots in *egalitarianism* and is a useful justice principle for FCERM because of its close association, as procedural equality, with issues of participation and stakeholder engagement. It requires principles of 'equal citizenship' to be upheld in that it requires all citizens to have an equal right to influence government. It also requires the principle of 'equality of opportunity' to be upheld in that factors such as gender, ethnicity and social background should have no influence on the FCERM decision-making process, the outcomes of this process or the ability of individuals and communities to participate in, and engage with, the FCERM process.

Ultimately, procedural equality is necessary to underpin the legitimacy of the decision process, irrespective of outcomes concerning intra- and inter-generational issues. It is also necessary to ensure that issues such as engagement, participation and the fair distribution of power are integrated into the analysis. Therefore, it is integrated into the conceptual framework used in this study as a 'fairness rule' based on the principle that all citizens should be treated equally.

In particular, the framework focuses on the process aspect of this principle - giving every citizen an equal opportunity to have their flood risk managed - since equality of outcome, given differences in geography, flood risks and flood events, is very difficult to achieve. If we adopted an equality of outcome approach, this would demand 'consistent standards' of protection across society and this has not been the aim, or the outcome, of policy for FCERM in terms of protection. For clarity, the characteristics of procedural equality and justice, as used in this research, are those developed by Thibaut and Walker (1975) and Leventhal (1980) and summarised by Green (2007) in Table 2.2.

The second principle – the maximin rule – is a *Rawlsian* justice principle and is useful for FCERM because it specifically requires decisions to be adopted which favour the 'worst off best'. In this way, it specifically addresses issues of vulnerability; a critical concept in the FCERM discourse and one which has been at the forefront of the environmental risks and hazards literature for many years. In our research framework, vulnerability is applied as a 'fairness rule' based on the principle that 'the vulnerable should be prioritised and the FCERM options chosen should be those that favour helping the 'worst off best' (Table 2.1).

Finally, the *utilitarian* concept of maximum utility is included as the third principle in our framework because it provides the mechanism for evaluating the fairness of resource distribution when applied to the dominant model of FCERM project appraisal; the cost-benefit approach. In this way, it incorporates the 'reality' of economic efficiency as the dominant model guiding decision-making in the distribution of taxpayer's money. However, this is not akin to classical utilitarianism; rather, it adopts the underlying normative framework of 'efficiency' plus 'equity' (Adler, 2006) in the application of cost-benefit analysis plus distributional weights

**Table 2.2 Characteristics of Procedural Justice**

<b>Characteristics of Procedural Justice</b>
<ul style="list-style-type: none"> <li>• A consistent policy process to be applied to all those at risk</li> </ul>
<ul style="list-style-type: none"> <li>• Neutrality – processes applied in a manner that is unbiased and not subject to political or other influence</li> </ul>
<ul style="list-style-type: none"> <li>• Representativeness – all those affected should be considered in the decision-making including the vulnerable and disadvantaged</li> </ul>
<ul style="list-style-type: none"> <li>• Accuracy – procedures that succeed in their own terms and are based on accurate information</li> </ul>
<ul style="list-style-type: none"> <li>• Correctability – the right to appeal</li> </ul>
<ul style="list-style-type: none"> <li>• A clear, transparent and understandable policy and decision-making process</li> </ul>
<ul style="list-style-type: none"> <li>• Standing – are the interested stakeholders/parties respected as people; do procedures protect the worth and dignity of those involved?</li> </ul>
<ul style="list-style-type: none"> <li>• Equal opportunity to access the decision-making</li> </ul>
<ul style="list-style-type: none"> <li>• Opportunities to participate in deliberations and influence decisions</li> </ul>

Ultimately, the approach adopted in this research is *pluralistic* drawing on the premise that FCERM:

- needs to be beneficial to the nation as a whole (i.e. maximises total utility);
- needs to ensure that all those at risk of flooding have an equal opportunity of having their flood risk managed by the state (i.e. procedural equality); and
- that the distribution of resources should target those most vulnerable to flooding (i.e. Rawls' maximin rule).

In this sense, it is normative, because no government could maximise the allocation of resources for FCERM - using all three principles - without a detrimental effect on other societal needs; a greater share of public revenue for FCERM means a lesser share for education, health, etc. However, if a pluralist approach is to be adopted, then a fair system of resource allocation for FCERM would draw on those elements of each principle which, in the FCERM context, appear to offer the maximum potential for fair outcomes and processes at all spatial scales; both for the taxpayer and those at risk. Of the three justice principles in Table 2.1, only the principle of equality of opportunity directly relates to procedural justice. The other two are based on the outcomes of decisions (distributive justice) as determined by certain rules/criteria based on collective-choice welfare models.

Adopting a pluralist approach requires us to recognise that some principles of distributive justice are not compatible: it is not possible to prioritise the most disadvantaged or vulnerable and at the same time maximise utility; although a pluralist or hybrid approach combining principles may be applied. Procedural justice, however, can be sought whatever the principle of distributive justice that is the focus of policy and practice. This makes this element in social justice of particular significance. Through it, justice may be seen to be done even if the outcome is judged unfair.

### **3. Key findings**

Terminology is important and in the analysis of policy documents evidence was sought based on issues of fairness, social justice and equity. In the roundtable discussions and interviews consistency was sought through the use of the language of fairness.



Social justice, albeit contested, is a familiar term for national scale policy makers. It is not, however, a term that is readily applied in public discourse nor is it a term that is readily definable; dependent as this is on the underlying principles upon which it is founded (see chapter 3: main report). Indeed, in academic literature and elsewhere, fairness, social justice and equity are often used interchangeably without any clear definitional differentiation between the terms (Ikeme, 2003). By embodying our discussions in the language of fairness, it is the respondents' interpretation of what is fair that then defines the social justice principles guiding attitudes and decision-making processes. Thus, no definition of fairness has been provided; indeed providing one would have run counter-intuitive to the objectives of the research.

At the national level, and in each of the four case studies, the following methods were employed to collect data and understand the issues.

### 3.1 Document analysis: fairness of FCERM policy and guidance

Twenty one key policy documents were analysed using a coding framework developed to examine fairness in both policies and processes generally and within a conceptual framework of social justice (see Appendix 1). The content analysis undertaken was qualitative rather than quantitative in nature. Documents were examined for any direct references to social justice and for any evidence of the social justice principles embedded in the documents. Quotations from the documents are cited as evidence of the principles involved. Judgement was used in determining whether particular principles were of 'dominant', 'major' or 'minor' importance within the document. Equality in process or procedural justice is characterised by consistency, transparency and some degree of consultation or engagement with stakeholders and the public. This principle is only described as 'major' where the document supports participatory, or deliberative, processes to some degree - not just consultation. The full review of documents is in chapter 4 of the main report and further elaborated in Appendix 5.

Two headline conclusions can be drawn concerning the social justice principles embedded in policy and guidance documents on FCERM:

- There is no 'joined-up' approach to social justice across government, organisations, departments and documents and there is a marked contrast in approaches to fairness e.g. the strategy on sustainable development favouring equality and vulnerability principles and the Treasury Green Book favouring utility.
- There is a move in FCERM policy towards a commitment to participatory decision-processes which recognise the needs of the most vulnerable. These fairness principles are not, however, embedded in policy guidance; partly because of the 'newness' of these policies and partly because the tools to do so are not adequately developed. There remains a potential for these to be developed further in the new Outcome Measures.

More specifically, the following key points can be made:

**Utility: 'Fair FCERM that seeks (process) and secures (outcome) the greatest risk reduction per unit input'**

Utility is the most important fairness principle driving FCERM policy and guidance concerned with the appraisal of flood and coastal erosion defences. This is in accordance with government-wide appraisal policy as laid out in the Treasury's Green Book.

Where there is some variation, it is in the extent to which elements of discrimination in favour of vulnerable, or disadvantaged, groups are incorporated.

The utility approach features minimally, if at all, in some areas of FCERM, e.g. flood warnings, emergency response and spatial planning. It is, however, the only approach that seeks to address both the benefits and the costs associated with FCERM. Fairness rules based on principles of vulnerability and equality are characterised by a focus on beneficiaries, not costs.

**Vulnerability: 'Fair FCERM that prioritises the vulnerable in the decision process and targets resources in favour of the most vulnerable'**

Policy and guidance varies in whether, or not, it attempts to discriminate in favour of disadvantaged, or vulnerable, groups. Where it does, there are differences in the approaches adopted. In some documents - including general documents not dealing specifically with FCERM - the discrimination is in favour of a general category: the 'excluded'; the 'deprived' (as measured by the Multiple Deprivation Index); and those on low incomes. However, low income and multiple deprivation are not the same as vulnerability to flooding; although these measures may capture some of the elements that may make people vulnerable in this situation. The issue, then, is whether these general measures provide an adequate surrogate in the absence of better measures of flood vulnerability.

Vulnerability to flooding may best be viewed as relational i.e. vulnerability may be specific to particular stages or situations in a flood event, e.g. capacity to receive a flood warning; capacity to respond to a flood warning, or to a flood event; capacity to bounce back after a flood in terms of mental and physical health; and practical recovery. Vulnerability may be contextual: dependent upon the household; community; and social context in which the flooding occurs. From this, it would follow that it would be best viewed in a 'bottom-up' way in relation to specific local contexts. Using this approach may be feasible in relation to flood warnings and response which can be adapted to local circumstances but may be problematic for plan, strategy and scheme appraisal.

**Equality: “Fair FCERM decisions are those that provide an equal opportunity for every citizen to have their risk managed in the decision process.”**

The documents reflect strong drives on the part of the government and the EA to achieve national consistency in FCERM policy and practice. All the documents have embedded within them the procedural justice principles of consistency and neutrality.

All the documents aspire to be clear, transparent and understandable. However, it is open to question whether they achieve this. Certainly, for example, some of the consultation responses on the Outcome Measures and Prioritisation questioned this (Appendix 3).

Where there is divergence on procedural justice it is in the extent to which there is support for equal opportunity to access the decision-making process and to participate in deliberations and influence decisions. This may in part reflect the date of the documents; since there has been a growing recognition of the need to engage with stakeholders and communities and to work in partnership and collaboration with other organisations to achieve sustainable development objectives. The MSW response document (Defra, 2005) and the recent Shoreline Management Guidance (Defra, 2006b&c) exemplify this.

In part, differences may reflect the organisational origins of the documents and organisational understanding and commitment to more participatory and deliberative processes with government (as evidenced in its strategy for sustainable development and spatial planning documents from the CLG) showing a greater commitment to go beyond consultation towards engagement with stakeholders and communities in decision-making than, for example, EA documents such as the CFMP guidance.

There is, too, a potential conflict and balance to be achieved between the elements of procedural justice: obtaining a nationally consistent and transparent approach whilst at the same time encouraging flexibility to allow for engagement and 'real' local influence in the decision-making process.

### **3.2 Stakeholder attitudes to the fairness of FCERM at the national level**

Two roundtable discussion meetings were held with key national stakeholders to provide insights into the attitudes towards the fairness of current FCERM and into the direction that future policy could, and should, take. Participants were drawn from the key organisations with responsibility for social justice and FCERM: Defra, the EA and CLG. Additionally, 12 individual interviews were undertaken to amplify, examine in greater detail, and validate, the findings from the roundtable discussions. Round table transcripts and interview notes were analysed together according to the topics or themes.

The attitudes of key national-level stakeholders concerning the fairness of FCERM policies and practices can be summarised according to the three main justice themes and over over-arching 'fairness' category.

#### **Utility**

The **utility approach** is, and should remain, the dominant fairness model guiding FCERM policy and practice in the appraisal and prioritisation process. However, because of the inequalities in outcomes that a utility approach delivers - and because not all communities have, in practice, an equal opportunity to engage with this process - a model which places greater emphasis on principles of procedural justice and vulnerability was thought to be fairer.

- FCERM remains dominated by the utility approach. This was thought to be an important fairness model for the efficient allocation of taxpayer's money; albeit with caveats e.g. too much of a focus on utility which, with limited funding, leads to gross inequalities of outcome between protected and unprotected communities.
- The utility approach was thought to be fair, in principle, in that: all individuals and communities have the opportunity to be considered for flood defence and objective criteria are used in the decision process. However, it was recognised that this may not be fair in practice.

- Utility was perceived to have limitations in its ability to actively engage with stakeholder participation and to target the most vulnerable. MCA and Outcome Measures are seen as important here.

## Vulnerability

There was general agreement that the current system of FCERM does not prioritise the needs of the **most vulnerable** and that a social justice model that targets resources towards vulnerable groups would be fairer. However, the multi-faceted nature of vulnerability was seen as a barrier to this.

- There was general agreement that the current system of FCERM does not prioritise the needs of the most vulnerable.
- It was recognised that the appraisal process accounts for deprivation in the people score although the new Outcome Measures were expected to offer a fairer inclusion of vulnerability than has been available in the past.
- The majority of respondents - although not all - thought that targeting resources and services to the most vulnerable would offer a fairer model of FCERM. However, the multi-faceted nature of vulnerability was seen as a particular barrier to this.
- For one respondent, a focus on vulnerable groups would be an unintended outcome of the continued squeeze on resources.

## Equality (procedural justice)

**Procedural justice** is seen as a key issue for FCERM; the process by which decisions are made must be seen to be fair even if the outcomes are not, transparency and understandability were seen as critical issues. Potential barriers to this include: time, money, skills, consultation fatigue and the conflict between national consistency and stakeholder engagement.

- For several interviewees, given that fairness in terms of distribution was inevitably a contested and subjective concept, procedural justice was seen as the key issue: processes can be seen as fair even if the outcomes are not deemed so.
- Transparency and understandability were seen as key issues in procedural justice. There was a difficult balance to be struck between complex systems (that might be fairer but difficult to grasp for stakeholders and members of the public) and simple systems which further transparency. One interviewee noted that while you do not want to over simplify, you want systems that you can explain in two minutes.
- The conflict between different elements in procedural justice was seen as particularly important for determining fairness in the decision process: between a 'top-down' technically-based approach with consistent national procedures that ensures that everyone is treated equally, and a 'bottom-up' approach of engaging with people and allowing flexibility to meet their wishes and needs.

## Is FCERM becoming fairer? Fairness, funding and consistency

Most participants interviewed for the research considered that although there was a 'lot of rhetoric' about fairness, FCERM was indeed becoming fairer: although this was not the attitude of all.

National funding mechanisms are perceived to be fair because they offer national consistency and rational criteria for the allocation of resources. However, they do not facilitate local involvement and stakeholder engagement and they are, therefore, simultaneously, perceived to be unfair. A balance needs to be struck between national consistency, on the one hand, and local decision-making on the other. To reconcile this would require a different model of resource allocation and prioritisation than is currently practised.

Selected points:

- It was widely recognised that fairness is a contested concept that has different meanings to different people and in different contexts.
- Issues of fairness arise in all policy areas and some respondents felt that in FCERM at least as much, if not more, attention has been paid to these issues - and attempts made to address them - as in other policy areas.
- Flooding and coastal erosion are themselves varied physical phenomena and, therefore, fairness across their different manifestations is an issue. The management of the risks associated with flooding and coastal erosion are never, therefore, undertaken on a level playing field.
- Social justice - as a key issue in government policy in general, and FCERM in particular - is a relatively recent and evolving concern and its incorporation into policy documents and guidance is uneven; partly due to the varied dates at which documents are produced. Thus, a consistent and coherent approach to social justice is lacking in government policy at present.

- Climate change means that FCERM is dealing with dynamic, uncertain and long term phenomena. Thus, it involves issues of inter-generational equity as well as intra-generational equity and geographical equity. The perceived fairness of FCERM, generally, will be influenced by what is determined to be the most appropriate balance between these issues.
- Respondents generally thought that a move towards a fairness model which places more emphasis on principles of procedural justice and vulnerability would be fairer.

MSW was viewed, by most, to be demonstrating a real policy drive to be fairer. Social justice issues were being explored to different degrees, and in different ways, in its projects. Clearly what they considered to be involved depended upon how individuals interpreted fairness. Common comments were that:

- There was greater awareness of social justice issues in FCERM than had been the case in the past.
- The movement away from an appraisal system focused on economic benefits - to a system in which other sustainability concerns (both social and environmental) are considered - was generally considered to be a fairer approach; although some thought that this needed to go further.
- Likewise, movement away from a focus on property, towards a focus on people, was generally considered to be a fairer approach; although again some thought that this needed to go further.
- For some, studies aimed at a greater understanding of what made people 'vulnerable' in areas of flood and coastal erosion, and moves to adjust policy and practice to take account of this vulnerability, were illustrative of changes towards a fairer FCERM policy approach.
- Generally, it was considered that the change from a reactive policy - in which defences were provided in response to flood events, and to public and political pressure for action - to a strategic, proactive, approach with rational national systems for appraisal meant that FCERM processes were becoming fairer.

The research reported here draws in a limited way on the Outcome Measures evidence of attitudes among a wider group of stakeholders to social justice issues in FCERM. It should be noted, however, that the consultation responses were heavily structured by the 19 consultation questions that stakeholders were asked to address. None of these questions were explicitly concerned with social justice in relation to the Outcome Measures and Prioritisation; although some of the questions raised issues relevant to social justice.

### 3.3 Case studies

The second phase of the research involved the analysis of four local level case studies (two coastal, one fluvial and one urban drainage) to examine, firstly, how national policy is implemented in practice and, secondly, to examine the fairness attitudes of regional and local stakeholders.

Each case study involved the analysis of key documents, a site visit by one or more of the research team and semi-structured interviews with key stakeholders.

A total of 15 sub-national documents were analysed for any direct references to social justice and for any evidence of the social justice principles embedded in the documents. Quotations from the documents are cited as evidence of the principles involved. Judgement was used in determining whether particular principles were of 'dominant', 'major', 'minor' or 'no' importance within the document. A full review is in the main report, this used a framework to:

- extrapolate useful contextual case study information;
- examine the links between local and regional documents and those at the national policy level;
- examine the role of the stakeholders involved;
- seek evidence of who funds the scheme/project/strategy, who is expected to benefit and what social justice criteria were used; and
- seek evidence of the social justice principles applied in practice.

Interviews with key sub-national stakeholders examined in greater detail the case study background, funding 'streams' - in terms of costs and benefits - as well as providing generic and targeted questions concerning the respondents' attitudes towards the fairness of decision processes and outcomes. Each case study obtained a balanced representation of views across the range of organisations involved and, where possible, sought representation from the 'general public'. A total of 28 interviews were completed with key findings below:

**Funding models.** Unsurprisingly, stakeholders at the local level were keen to articulate the inadequacy of national funding for FCERM. This was seen as a critical factor influencing attitudes to the fairness of FCERM at the local level. Indeed, the different models of funding - across different flood types and contexts - were, in

themselves, considered to be causes of this perceived injustice. In some contexts, it is the unfairness of legislative and institutional arrangements that is seen to be the cause; in others, it is the policy and guidance from national government. The use of different approaches meant there was a lack of clarity and consistency in applying social justice principles. Whilst the appraisal and prioritisation process was recognised to be an important mechanism for distributing government funding, it was also seen as a mechanism for the creation of unfair outcomes. Intergenerational equity is also an important factor in assessing funding decisions.

**The fairness of decision outcomes** was difficult to evaluate because these can be closely associated with the decision process. However, outcome evaluation should be a key focus for assessing fairness and social justice decisions in the future.

The findings from the case studies illustrate the **importance of the decision process** in determining whether a policy, as implemented in practice, is considered to be fair. Critical issues embedded in this fairness perception appear to be influenced by a number of important factors. These include: degree of engagement (consultation v participatory), the timing of decisions, evidence of critical decision junctures; perceptions of the urgency of decisions; the demarcation of boundaries in the appraisal process; the existence of policy champions and the role of local discretion and legislation. In addition, the case studies illustrated key fairness issues in how the vulnerable are targeted, and the barriers to implementing a beneficiary pays principle in practice.

## 4. Insights and recommendations

**No single model.** The research concludes that there is no single model of social justice that can adequately integrate the social justice concerns of all stakeholders. Rather, the issue is in what way can government manage the range of social justice concerns in a fair and equitable way?

**Decision processes v decision outcomes.** The FCERM 'reality' suggests that the distinction between decision processes and decision outcomes is less clear-cut than the theoretical model would lead us to believe. Ultimately, we conclude that the process by which decisions are made is the critically important factor for determining whether FCERM is perceived to be fair or not; although outcome injustices remain important, particularly for those at-risk.

### 4.1 The fairness of FCERM policy and practice

**1. Approaches to social justice.** At present there is no joined-up approach to social justice across government, organisations, departments or policy. At the highest level, there is a marked difference between policy that favours equality and vulnerability principles (HM Government, 2005) and those favouring utility (HM Treasury, 2003). This is partly because of the 'newness' of these later policies and partly because the tools for incorporating equality and vulnerability principles into FCERM decision-making are not adequately developed. For project appraisal, Outcome Measures and Multi-Criteria Analysis offer a potential here.

**2. Application of approaches.** There are, similarly, important institutional differences in the application of social justice principles. The Treasury and Defra, for example, favour utility principles (although vulnerability and equality are increasing in importance for Defra), whilst for the CLG and EA (excepting their appraisal role), vulnerability and equality are the main social justice principles of concern.

**3. Impact of lack of consistency.** Recognising these differential fairness preferences goes some way to understanding the potential conflicts that may emerge between stakeholders in the practice of FCERM. For example, Defra's policy not to defend areas of coastal erosion - based on utility principles - is in conflict with CLG's policy towards social cohesion - based on vulnerability principles. Likewise, because Defra's appraisal process leads to outcome inequalities in flood defence this similarly conflicts with the CLG's policy towards social cohesion. This becomes important because these conflicts have the potential to result in a perceived unfairness in practice. Undefended coastal communities may argue that abandonment policies are unfair because, in part, they have the potential to damage community cohesion, lead to community blight and, in the worst case scenario, may result in community abandonment. Undefended urban areas may argue that policy is unfair because areas within a community receive differential standards of protection. Similarly, inconsistency in how the longer-term is accounted for in national policy has important fairness implications. The short time horizon of spatial planners (15-20 years) is considered particularly important in this respect.

**4. National funding.** The model driving much of the FCERM spend, at the national level, is based on the principle that it is fair for the majority (national taxpayers) to fund the risk management of the minority (those at-risk). Those who believe this not to be so provide the counter-argument that applying the 'beneficiary pays principle' in the FCERM context would be fairer. The majority of respondents in our research did not regard the 'beneficiary pays principle' to be a positive solution in this respect because of the difficulties in: determining what the beneficiaries could have reasonably be expected to have known of the risk in the choices they have made; defining who the beneficiaries are; and in incorporating the 'polluter pays principles' across space and time.

**5. Cost effectiveness.** An important consideration, however, is that whilst the appraisal process was recognised as an important mechanism for the distribution of government funding, the allocation of funding for FCERM was seen to be inadequate and unfair when compared with other government departments. The benefit-cost ratios of flood defence projects, in particular, were considered to be extremely high when compared with other areas of government funding (i.e. roads). This perceived unfairness was seen to result in a number of deserving projects being denied funding and in limiting the range of options available for FCERM.

**6. Vulnerability.** Within FCERM, utility remains the dominant fairness principle currently applied in practice; with scant evidence of decisions being made on the basis of vulnerability principles, other than as a utility add-on in the appraisal process - through the application of distributional impacts, deprivation indices and the SFVI - and in the provision of flood warnings and emergency management. Targeting the vulnerable is not, currently, embodied in the policies and practices towards the provision of insurance, spatial planning, homeowner adaptation, land use control and management.

**7. National consistency v stakeholder engagement.** There is strong ambition for policy and practice to be consistent, neutral, transparent and clear. However, at present, this is achieved through the appraisal process rather than a more deliberative process with 'real' stakeholder engagement. There is support for all those at risk of flooding to have an equal opportunity to access the decision-making process but the 'reality' is that it is only those areas that are expected to attain Defra's priority score that are put forward by local decision makers. This is a significant barrier to achieving fair FCERM in practice.

**8. FCERM is becoming fairer.** It is evident that advances have been made in the past 3-4 years to recognise the importance of, and seek to address, fairness concerns in FCERM. Indeed, most national stakeholders considered that, although there is a lot of 'rhetoric about fairness', FCERM is becoming fairer. The commitment in the MSW documentation to: national and local participative decision-making; to managing flood risk from all sources of flooding; and to recognising the fairness concerns for those whose risks cannot be managed through capital schemes, is illustrative of this change. Our research has shown, however, that for decisions about structural measures, in particular, we don't yet have the tools to take account of this; although in theory SMPs and CFMPs are designed to do so, they are currently under development and in their infancy. Until developed, this may be a barrier to achieving fair FCERM in practice.

**9. Procedural justice and vulnerability for structural measures.** In general, stakeholders at the national level recognised that the utility approach - driving decisions concerning structural measures - leads to inequities in outcomes and - although this was thought to be the 'fairest' approach to apply - enthusiasm was tempered by concerns for procedural justice and vulnerability. This perception was endorsed by some local-level stakeholders; albeit whilst recognising inadequacies in the appraisal system, not least in its incorporation of people, heritage and health impacts. As would be expected, a proportion of those at-risk generally regarded outcome inequality associated with structural measures to be unfair; particularly where the outcomes result in different standards of protection within communities. An additional unfairness was perceived to exist, at this spatial scale, in the differential standards of protection afforded to sewer and fluvial flooding.

**10. Multi-faceted nature of vulnerability.** For non-structural strategies, stakeholders recognised the procedural fairness embedded in flood warning, awareness raising and spatial planning policies. However, other than a commitment to vulnerability principles in the provision of flood warnings, these strategies were not seen to be influenced by vulnerability principles. It was generally agreed that the vulnerable are not adequately accounted for in FCERM decisions, with both national and local stakeholders agreeing, in principle, that targeting the vulnerable in FCERM would be fairer. However, this finding was tempered by the reality-driven perception of the difficulties in implementing such a policy. The multi-faceted nature of vulnerability was seen as a major barrier to the successful implementation of policy in this regard.

**11. Procedural justice.** Procedural justice is seen as a key issue for FCERM. But, cost, time, vociferous local minorities, and conflicts between procedural justice and 'other' social justice elements are important barriers to its implementation. It was also argued that because the general expectation of the population remains defence-orientated, engaging with the public when defence solutions are not an option is particularly difficult.

**12. Appraisal process.** Overall, the appraisal and prioritisation process was recognised as procedurally fair in that it is a consistently applied rationing process. However, when implemented, the appraisal process was itself seen as a cause of unfairness because: it runs counter-productive to policies of social cohesion and well-being; people facing the same risk receive different outcomes; distributional impacts do not discriminate as originally intended; coastal flooding is perceived to be prioritised over coastal erosion; and because only those with the potential to be funded have the opportunity to be considered. This latter point was thought to be particularly unfair because it effectively means that those for whom capital schemes will never be an option have neither an equal opportunity to engage in the decision process nor to have their risks managed by the state; other than through flood warnings, awareness raising and development planning decisions.

**13. Dealing with policy change.** At the local level, perception of the fairness of FCERM in practice is influenced by the timing of the decision; particularly when outcomes are the result of decision processes operating under different guidance rules. Managing this changing policy context is, therefore, important if the outcomes of FCERM decision are to be considered fair. This has important implications for any policy changes that might be implemented in line with the policy ideals set out in MSW. Taking the roll-back policy as an example, if the government changed its policy in this regard so as to provide either financial or managerial assistance for those at-risk, this may appear fairer. But, for those coastal residents who have already rolled-back, under the beneficiary pays principle, this may be considered far from fair. Change is inevitable, the question is: how fairly can these changes be implemented in practice?

**14. Local factors.** Additional factors influencing perceptions of the fairness of decision processes at the local level appear to be influenced by the demarcation of boundaries in the appraisal process and the role of champions in securing national funding. In addition, the practise of FCERM includes an element of 'rule bending' either in the non-enforcement of legislation or the deviation from appraisal rules. Whether this is due to perceived unfairness or simply a function of cost and time constraints is unclear. What is clear is that flexibility in local decision-making – that seeks funding from the national 'pot' – is constrained by the rules at this spatial scale.

**15. Inter-generational equity.** The issue of inter-generational equity, and the balance between inter- and intra-generational equity, is an area of social justice that requires further attention. It is not clear that policy makers - particularly within the planning system – are as yet giving sufficient attention to the needs of future generations in the incorporation of long-term equity issues in today's decisions. The shorter time scales in planning compared with other areas of FCERM, in particular, is considered to be a serious constraint in embracing inter-generational equity concerns in FCERM.

## 4.2 Alternative models: possible implications?

This research has illustrated the multi-faceted nature of social justice and the multi-faceted nature of FCERM. Because of this, there can be no "correct" model of social justice which can be applied in the FCERM context. But, how can we ensure that the range of social justice concerns is adequately accounted for in FCERM policy and practice?

There are some key fairness issues in FCERM which result from particular trade-offs e.g. national v local v individual funding; coasts v rivers; urban v rural; defence v resilience / adaptation; whole v parts of communities; generational. Whilst all of these can not be easily resolved, it is important that at the very least, the fairness concerns highlighted by this research are adequately accounted for in FCERM policy and practice. This requires a reflection on the appropriate balance in the implementation of FCERM options and an examination of the appropriate mix of state, local, corporate and individual funding in this process. Decisions of this nature will, ultimately, influence the extent to which government policies incorporate the social justice concerns of all stakeholders and are, in turn, regarded by these stakeholders to be fair. Three issues appear to be critically important in this respect:

1. There must be an open and transparent account of the weight being applied to different social justice principles in policy, guidance and practice across the range of FCERM options;
2. There needs to be a clear account of the trade-offs that are required in the balancing of requirements for national consistency with those for stakeholder engagement; and
3. The current model of resource distribution which favours the distribution of national resources through the appraisal process should be re-evaluated; particularly for those who have no equality of opportunity to access this decision process.

At present, there is no open and transparent account of the weight being placed on FCERM options, or the social justice principles they engage. FCERM is dominated by utility principles, many of which are complex and largely hidden from the general observer. It is far from clear what weight is being applied to different risk management options, and in turn the social justice principles they embody. Indeed, it appears that current decision-making practices fail to fully account for the social justice concerns of all stakeholders; particularly in the dominance of utility principles which neither offers procedural equality nor targets resources in favour of the most vulnerable. By clearly articulating the manner in which principles of utility, vulnerability and procedural equality are incorporated into FCERM, this will significantly improve the perceived justice of FCERM.

## 4.3 Recommendations

**No single model of social justice** can adequately incorporate the social justice concerns of all those at-risk and those responsible for managing these risks; nationally, regionally and locally. What appears to be fair at a national level is not necessarily regarded equally so at the local level. Similarly, where most national and local

decision-makers recognise that outcome equality is not achievable; this is not necessarily the perception of stakeholders and at-risk populations at the local level.

The research has also illustrated the **importance of funding streams** which highlight the priority attached to different social justice principles in the distribution of resources between coasts and rivers, in the management of risks in urban and rural areas and in the priority afforded to different risk management options. Any changes to this system will, ultimately, lead to a different balance between the prioritisation of social justice principles.

Ultimately, **different stakeholders bring different models of justice to the decision process**; influencing whether they regard the policy and practice of FCERM to be fair or not. The evidence seems to suggest that: maximising utility is important in the allocation of taxpayers' money; prioritising vulnerable groups is valuable but difficult to operationalise; and, given funding constraints, ensuring procedural justice is, arguably, the most important criteria for determining the fairness, or otherwise, of decision processes and decision outcomes.

**A fairer approach to FCERM appears to be one in which there is active involvement of all stakeholders in a decision process that is open, transparent and accountable.** Clearly, however, ensuring deliberative and participatory decision processes is no panacea; not least because there are trade-offs to be made, and barriers to be dismantled, between ensuring national consistencies whilst simultaneously engaging the concerns of those at-risk; the request for outcome equality in some local contexts is illustrative of one such barrier.

**Rather than providing an alternative 'fairer' model of FCERM, what is critically important is that decision-makers at all levels need to be able to illustrate how social justice issues have been addressed in the decision-making process.** At present, the social justice principles being applied are hidden within a complex decision-making system which is anything but explicit. This lack of transparency about how social justice concerns are being accounted for in FCERM creates the potential for conflict and confusion; particularly when the outcomes of FCERM decisions are not perceived to be fair.

This research has provided 'first insights' into the fairness of FCERM policy and practice and there appears to be **value in using the social justice framework employed**; even though the process and outcome distinctions may be less clear than is theoretically suggested. However, it is equally important to recognise that the research is based on four case studies and offers a snap-shot in time which cannot account for the rapidly changing context which characterises FCERM policy and practice. Bearing this in mind, there are three important practical recommendations which emerge from this research. Defra and the EA should:

1. Keep under constant review their policy, procedures and funding models, using the framework, to examine the extent to which they embody the social justice concerns highlighted by this research.
2. Explicitly recognise and actively incorporate a framework for systematically identifying and evaluating social justice concerns within their decision-making processes and procedures.
3. Review and evaluate decision outcomes with a social justice 'lens' in order to illustrate how social justice concerns are embedded in decision outcomes. This will make social justice less of a theoretical concept but more tangible in terms of outcomes and policy measures.

The evaluation tools provide the opportunity for Defra and the EA to monitor explicitly how social justice is embedded into policy decisions and outcomes: thus moving away from the current system where social justice concerns are arbitrarily incorporated at best, and hidden, or unaccounted for, at worst; needless to say there will remain those who believe that an injustice has occurred. Ultimately, what is important is that the social justice model applied in FCERM is transparent and consistently applied; and seen to be so.

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9. This section should be used to record links (hypertext links where possible) or references to other published material generated by, or relating to this project.



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