Environmental Justice Impact Assessment

An evaluation of requirements and tools for
distributional analysis

A REPORT FOR FRIENDS OF THE EARTH
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Executive Summary

Objective and Rationale

1. One of the reasons that negative environmental impacts are distributed unjustly may be that assessment methods used to evaluate policies do not adequately examine distributional issues. This research project is intended to provide an evaluation of the range of alternative tools for distributional analysis within policy assessment that may be relevant to promoting environmental justice.

2. The project examined 17 different forms of impact assessment which are applied to some degree in the UK and could be of relevance to environmental justice distributional analysis. It also reviewed examples of impact assessment methods that have been applied in other countries.

Status of Impact Assessment Methods

3. Few of the 17 forms of impact assessment are well established, embedded or widely used. Only EIA, RIA, Transport Analysis and Green Book Guidance have a substantial track record of use in the UK. Some methods are well developed but not widely used in the UK e.g. Social Impact Assessment. Other methods are very new, are still going through piloting or have few examples of use in practice (e.g. Strategic Environmental Assessment, Well-Being Impact Assessment, Integrated Policy Appraisal).

4. Of the seventeen methods only two – EIA and SEA – have a statutory status. Seven others have an official status as endorsed in government policy, whilst the remaining methods either have an advisory status (with differing strengths) or no status within government at all.

Distributional Analysis within Impact Assessment Methods

5. There are only three methods in which distributional analysis has a ‘high’ profile – Health Impact Assessment, Health Equity Audit and Equality Impact Assessment. In each of these cases there is a strong ethic or principle underlying the method which focuses on analysing and addressing inequalities and is (or should be) fundamental to why and how it is used.

6. Health Impact Assessment is the one method for which it is possible to identify examples of what are effectively environmental justice distributional analyses undertaken in the UK.

7. Four methods currently give a low or very low profile to distributional analysis – EIA, SEA, Sustainability Appraisal and Integrated Appraisal within the Environment Agency.

8. The remaining methods all include distributional analysis as an element of the appraisal which it is expected will feature when the method is applied. However, the focus on distribution or inequality is not fundamental to the method.

9. In five cases, substantial and fairly detailed guidance on how to do distributional analysis is available - Health Impact Assessment, Health Equity Audit, Equality
Impact Assessment, Green Book and Integrated Policy Appraisal. Guidance for other methods ranges from a very simplistic listing of the types of population groups that may need to be considered in undertaking a distributional analysis, to a more substantial but limited discussion of data sources and techniques.

10. Most of the evaluative research that has specifically considered distributional elements of assessment methods, has highlighted the poor quality of analysis and the need for improved guidance on how to undertake distributional analysis.

11. With a few exceptions the guidance for most methods incorporates the key social/demographic parameters within distributional analysis – deprivation, age, gender, disability, ethnicity. The more general notion of 'vulnerable people', related usually to potential health impacts, is also often included.

12. Very few methods implicitly or explicitly recognise the need to take account of spatially distant populations (e.g. populations in other countries) or potential impacts on future generations.

13. There is little evaluative research that has focused on the use of distributional analysis within impact assessment, so it is difficult to therefore be at all definitive about what difference distributional analysis has made in practice.

14. Most of the impact assessment methods rely upon a checklist approach taking the form of a brief summary of any expected differential impacts on the population group of interest. Whilst this may be underpinned by a more substantial analysis, this appears rarely to be the case.

15. Most methods using checklist approaches enable distributional impacts to be briefly recognised, without any following action being required. Distributional effects sit alongside the other aspects of the assessment as information which may, or may not, influence decision-making relating to the relevant policy, plan or programme.

16. A few methods do have mechanisms which mean that the results of the distributional analysis can lead to a more substantial and potentially significant impact on decision outcomes. These take the form of either legislative triggers, or decision criteria.

17. Overall, the evaluative evidence that is available suggests that distributional analysis is either not being carried out, or not being carried out very well within impact assessment. There is a need for more detailed, inclusive and thorough guidance and greater clarity as to how distributional factors, alongside the many others that are relevant, should figure in the decision-making that the impact assessment method is seeking to inform.

Conclusions and the Way Forward

18. The overall conclusion of this review is that current impact assessment methods and their implementation in the UK are failing to provide an effective analysis of environmental justice issues in policy making and project approval. None of the 17 methods we have reviewed currently provide for effective distributional analysis focused on environmental justice concerns, particularly in the context of the breadth of definition of environmental justice adopted by FoE. In some policy areas, particularly health, we have been able to be more positive about current practice, but even here the scope of distributional analysis is limited and there are problems with the quality and rigour of implementation.
19. The examples of practice in other countries that we have been able to review, do not provide model approaches to directly follow or adapt. Whilst some aspects of the US approach, deriving from Executive Order 12898 and including the incorporation of EJ issues in NEPA environment assessments, may be usefully drawn on, it is also strongly shaped and limited by the emphasis given to civil rights and pollution/risk concerns above all others.

20. Impact assessment is, though, a rapidly evolving field and several of the methods of impact assessment we have reviewed are very new and yet to be substantially tested, refined and improved through evaluation in practice. There is therefore considerable scope for developing more effective EJ orientated distributional analysis at a time when considerable policy attention is being given to the interface between environmental and social justice policies.

21. Four options for progressing distributional analysis within impact assessment are proposed and discussed. These could be pursued individually or in combination:

Option 1: Develop EJ distributional analysis within the range of impact assessment methods that are currently being used.

Option 2: Develop EJ distributional analysis through Strategic Environmental Assessment.

Option 3: Develop EJ distributional analysis through the use and development of Integrated Impact Assessment methods.

Option 4: Develop EJ distributional analysis through a specific tool of Environmental Equity Appraisal.

22. Whichever option(s) is followed, the methodological complexities of EJ distributional analysis mean that there is a need for detailed best practice guidance to be developed. This could provide generic advice to those seeking to include EJ distributional analysis within any impact assessment method.

23. Particularly important and challenging for this guidance would be the inclusion of international and intergenerational distributional analysis, which has to-date received very little attention within the impact assessment literature.

24. Whilst there is a need to develop the practice of distributional analysis, there is also a need to develop the interpretation of this analysis and its integration into decision-making processes and practices.

25. A number of directions for further research are identified. These include the more thorough evaluation of the practice of distributional analysis with those methods where it should currently be being applied e.g. RIA; analysis of how HIA is being used in the interface between environment and health concerns; more detailed analysis of the different ways in which the outcomes of distribution analysis could be factored into established tools such as cost-benefit analysis; and evaluation of distributional analysis within the practice of SEA, potentially across different European countries.
1 Aims and Context

One of the reasons that environmental impacts are distributed unjustly may be that assessment methods used to evaluate policies do not adequately examine distributional issues. This research project is intended to provide Friends of the Earth with information about the range of alternative tools for distributional analysis within policy assessment that may be relevant to promoting environmental justice.

Whilst the general concept of ‘environmental justice’ is making increasing inroads into the thinking and policy agenda of government departments and agencies in the UK, its meaningful operationalisation is still some way off. Exactly what environmental justice (or ‘environmental equity’, ‘environment and social justice’, ‘environmental deprivation’ or other variants) means in a UK policy context, what principles it implies in policy terms, how it is to be integrated with other policy drivers and what types of responses can and should be made is proving difficult to pin down.

There are many dimensions to taking an EJ agenda forward, but one important element identified in a recent research report for the Environment Agency (Walker et al 2003) and in a government cross-departmental workshop on Environment and Social Justice held last year, is the availability and use of policy impact assessment tools. Environmental justice brings an additional set of concerns to policy impact assessment by asking not just what the environmental impacts of a new policy, programme or regulation might be, but how might these impacts are likely to be distributed across different social groups.

Given the breadth of EJ as defined by Friends of the Earth, such questions are relevant to a wide range of policy contexts. These include, for example:

- Environmental policy - where policies to protect or improve the environment might intentionally or unintentionally affect some people more than others (in terms of their health, quality of life, well being etc.) ranging from global issues such as climate change down to local greenspace or regeneration policies

- Energy Policy – most directly in terms of fuel poverty issues which are highly skewed towards vulnerable groups, but also in terms of who (socially, spatially, generationally) will be affected by different power generation/supply strategies (renewables v continued oil dependence v nuclear)

- Transport Policy – where both issues of negative impact (pollution, noise) and service and access provision raise distributional concerns

The aim of this project is to research and synthesise information about the range of requirements and tools for distributional analysis within policy assessment, and their effectiveness, that may be relevant to promoting environmental justice in the UK.

For this project, key terms in the research aim are defined as follows:

- a ‘requirement’ is, for example, a clause in primary legislation, regulation or official advice which specifies that assessment should be done

- a ‘method or tool’ is, for example, the actual process or assessment technique that is used to meet the requirement
• ‘relevance’ means it is a requirement or method which is already applied to
distributional analysis in a sector other than environment but could cover the
environment, or it is applied in only one environmental sector and could be
extended to others

The distributional variables specified as relevant in the project brief are ‘impacts on
people, including specific groups of people, including health effects, effects on future
generations, effects on people in other countries, and effects on different income
groups in the UK’. Social, spatial and generational distributional dimensions are
therefore included within the remit of analysis of impact assessment methods.
The project brief specified four tasks to be undertaken:

- **Task 1:** List all relevant distributional analysis policy assessment requirements and methods currently required and/or in “official” use in the UK, summarising what these requirements cover.

- **Task 2:** List examples of distributional analysis in policy requirements and methods currently required and/or in “official” use in other parts of the world with particular emphasis on USA states and European countries.

- **Task 3:** Provide an up to date summary of any assessments of the effectiveness of these requirements and methods in 1 and 2 above including, their uptake by practitioners as well as any substantive outcomes they have had and how they shape up according to FOE’s distributional analysis checklist. It will also include an analysis of whether the assessment means that certain impacts have to be avoided.

- **Task 4:** Provide a short commentary and assessment as to the gaps in the UK set of distributional analysis assessment tools and the applicability of other UK and overseas experience to addressing those gaps; including recommendations for further research and policy development.

The research work was undertaken through a desktop search of relevant academic literature, published reports and other information (from government and official websites) using the ISI Web of Science database and the search engines Scirus and Google. This material was then collated, synthesised and analysed focusing on distributional analysis elements.

The report structure is intended to focus the discussion on the synthesis and analysis of information.

Most of the detailed information on the individual impact assessment methods/tools reviewed in this project can be found in Appendix 2, organised into a common tabulated format including links to key websites and reports. The information provided for each method/tool is as follows:

- Status (statutory/advisory, stage of development etc..)
- Scale of Use (local, regional, national, international)
- General Description
- Requirement/Method for Distributional Analysis
- Evaluation of Use
- Population groups covered (social, spatial, generational)
- Web sites and references
- Examples (including extracts relevant to distributional analysis where available)
3 Impact Assessment and Distributional Analysis in the UK

3.1 Forms of Impact Assessment

The past decade has seen a mushrooming of impact assessment methods and tools. Some of these have evolved from early versions and experiences of requirements to undertake Environmental Impact Assessment. Others have their origin more in the cost-benefit appraisal techniques applied to the evaluation of regulations and policies, which have then evolved into wider forms of impact assessment. Two, to an extent, opposite trends can be observed:

- the emergence of impact assessment tools targeted on particular policy issues or the interests of particular groups (e.g. gender impact assessment, consumer impact assessment).
- the development of various versions of integrated impact assessment which attempt to make a more all-encompassing and holistic appraisal of impacts.

For the purposes of this study we have focused our attention on 17 different forms of impact assessment which are applied to some degree in the UK and could be of relevance to environmental justice distributional analysis. Some of these were identified in the research brief as needing to be included. Others were identified in the course of undertaking the research. Inevitably there are other methods and tools which could have been included (such as risk assessment), but we are confident that we have identified and evaluated those of most relevance to environmental justice applications and to policy assessment in the UK.

The 17 forms of impact assessment are listed below in four groups according to their primary orientation – environmental, social, economic or integration/sustainability. These categories are not intended to suggest that the assessment method is limited only to this orientation, but that there is a primary focus or origin of the assessment method which shapes its form and utilisation.

### Environmental Orientation
- Environmental Impact Assessment (EIA)
- Strategic Environmental Assessment (SEA)

### Social Orientation
- Social Impact Assessment (SIA)
- Health Impact Assessment (HIA)
- Health Equity Audit (HEA)
- Well-Being Power and Well-Being Impact Assessment (WBIA)
- Gender Impact Assessment (GIA)
- Fuel Poverty Analysis
- Equality Impact Assessment (EquIA)

### Economic Orientation
- Regulatory Impact Assessment (RIA)
- Green Book Guidance
- Assessment of Impacts of Spatial Interventions (AISI)
- Consumer Impact Assessment (CIA)
- Transport Analysis (TA)

### Integration/Sustainability Orientation
- Sustainability Appraisal (SA)
- Integrated Policy Appraisal (IPA)
- Integrated Appraisal, Environment Agency, (IA)

As noted earlier a detailed presentation of information about each method or tool can be found in Appendix 2.
3.2 Status of Impact Assessment Methods/Tools

Very few of the 17 methods we have included are well established, embedded or widely used.

- **Only EIA, RIA, Transport Analysis and the Green Book Guidance have a substantial track record of use in the UK.** Even for these, recent changes have been made to policy guidance and requirements so that past practice may not be a good indicator of current thinking and intentions.

- **Some methods are well developed but not widely used in the UK, with social impact assessment a prime example**

- **Other methods are very new, are still going through piloting or have few examples of use in practice** (e.g. Strategic Environmental Assessment, Well-being Impact Assessment, Integrated Policy Appraisal, ODPM Guidance on Spatial Interventions)

- **Even where methods are more widely used they are often described in the literature and by practitioners as ‘evolving’ or at ‘early stages of development’** (e.g. Health Impact Assessment, Sustainability Appraisal)

Table 3.1 shows the policy status of each of the methods indicating whether there is a 'statutory requirement', an 'official policy requirement' or simply a policy endorsement advising its use.

- ‘Statutory requirement’ is where a legislative or regulatory measure requires that an impact assessment is undertaken for particular types of policies or in particular decision-making contexts

- An ‘Official Policy Requirement’ is not backed up by legislation and the potential for legal action if the impact assessment is not undertaken, but does have a clear status in what the government says it will do when formulating new legislation, regulations or policy. So, for example, it is stated government policy that an RIA will be undertaken and published for every new regulatory proposal meeting certain criteria.

- ‘Advisory policy’ is where a method has been endorsed as useful in government policy or guidance documents, but there is no clear commitment to its use on a recurrent or consistent basis.

**Of the seventeen methods only two – EIA and SEA – have a statutory status.** In both cases this has its origin in European legislation, although requirements for SEA have only just come into force. This makes these two methods particularly significant in terms of a legal mechanism being available which can enforce the assessment being carried out. However, EIA only applies to development projects, not to policies or programmes, and there has been much debate about the quality of the assessments undertaken and the rather mechanistic culture that has evolved around what has become a business requirement (or ‘burden’). There is also uncertainty still around exactly when SEAs are going to be required, beyond obvious cases such as local and regional development plans.
Table 3.1: Seventeen forms of Impact Assessment, their status and the profile given to distributional analysis

<table>
<thead>
<tr>
<th>Impact Assessment Tool</th>
<th>Statutory Requirement</th>
<th>Official Policy</th>
<th>Advisory Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Environmental Orientation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental Impact Assessment</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strategic Environmental Assessment</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Social Orientation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Impact Assessment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health Impact Assessment</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Health Equity Audit</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Well-Being Power and WB Impact Assessment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender Impact Assessment</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Fuel Poverty Analysis</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Equality Impact Assessment</td>
<td>Yes (in Northern Ireland)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Economic Orientation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regulatory Impact Assessment</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Green Book Guidance</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Assessment of Impacts of Spatial Interventions</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Consumer Impact Assessment</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Transport Analysis</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td><strong>Integration/Sustainability Orientation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sustainability Appraisal</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Integrated Policy Appraisal (UK)</td>
<td></td>
<td>Yes?</td>
<td></td>
</tr>
<tr>
<td>Integrated Appraisal (Env Agency)</td>
<td></td>
<td>Yes?</td>
<td></td>
</tr>
</tbody>
</table>

Seven forms of impact assessment have a status as being part of official policy. The four methods in this category with an economic orientation (RIA, Green Book, AISI, Transport Analysis) are closely related and, because of their Treasury backing, there is strong pressure for them to be used on a rigorous basis (with RIA now universally required for all significant policy proposals; see below). The ODPM guidance on assessing the impact of spatial interventions (AISI), such as regeneration projects, is very recent but is described as supplementing the Green Book guidance. Health Impact Assessment was endorsed in the White Paper ‘Our Healthier Nation’ in 1999 which committed the government to making HIA ‘part of routine practice of policy making in government’. Likewise, the new approach to
Transport Analysis was endorsed in the White Paper and, ‘once finalised, will be applied to the appraisal of all transport projects, including proposals for all road schemes’. Sustainability Appraisal has been expected to be used for regional plans and is recommended to be used for local development plans. Consequently a large number of the more recent plans have included sustainability appraisal as part of the process of their production.

The remaining methods either have an advisory status (although with differing strengths) or, in two cases, have no status within government at all. Well-being Impact Assessment has recently emerged as a variant of Health Impact Assessment, picking up on the ‘well-being’ tag now being attached to much local government activity. Social Impact Assessment, despite having a long pedigree and being part of government policy in other countries, does not appear to have achieved any status with government in the UK.

Fuel Poverty Analysis has a rather indeterminate status and is not a formal method of impact assessment as others are. It was included in the project because of the relevance of fuel poverty to environmental justice concerns and the potential impact of the Warm Homes and Energy Conservation Act. This Act puts specific obligations on the four countries/principalities of the UK to produce fuel poverty strategies and it is intrinsic to these strategies that they will need to focus on particular vulnerable groups. However, it appears that only in Scotland is there guidance coming out of the strategy which advises local housing authorities on how to assess the social profile of fuel poverty in their area.

In two cases in the ‘integration’ category – IPA and IA in the Environment Agency - the current status of the methods is to an extent uncertain. Integrated Policy Appraisal was originally developed by DETR and subsequently by DTLR and Defra, in association with DoH to deliver the Modernising Government White Paper commitment on integrated appraisal. A ‘good practice tool’ was produced, initially piloted, refined and then more widely piloted across government. The report on this second coordinated pilot has recently been published and is broadly supportive of IPA, and its potential impact on introducing sustainability more centrally into policy making although the need for a champion within government is identified (see section 3.4 for more discussion). Whilst there has been some debate within government departments as to whether or not IPA should become officially endorsed and potentially replace RIA, a decision was taken earlier this year to maintain RIA as the universally required method. Changes to the RIA have though been made from April 1st 2004 to incorporate aspects of the IPA method and the reflect the findings of the pilot evaluation report (see section on RIA in Appendix 2). In responding to criticisms from the Environment Audit Committee, the government recently outlined this change of policy as follows:

1When completing RIAs, departments are now required explicitly to identify any significant environmental and social costs and benefits, as well as economic costs and benefits. The combined effect of these changes means that consideration of a wide range of impacts, including environmental impacts, is mandatory for all new significant policy proposals…. The Cabinet Office’s revised web-based guidance on RIAs draws on the analytical approach of HM Treasury’s Green Book, the basis for all cost/benefit analysis. It also includes recommended checklists, which provide prompts to help policy makers identify the full breadth of impacts early on in the RIA process. These checklists (on economic, environmental, social and distributional impacts) provide the same coverage as the Integrated Policy Appraisal tool previously used by some departments1 (House of Commons Audit Committee 2004)
Defra has recently stated that it will require the use of the sustainability checklist within all of the RIAs it produces (Defra, 2004).

A method of Integrated Appraisal was also developed within the Environment Agency in the form of a simple checklist approach to policy appraisal for use within the Agency. This was published as draft guidance, revised and piloted, but it does not appear to currently have any official status or be routinely used.

3.3 Distributional Analysis within Impact Assessment Methods

The key criteria for evaluating each impact assessment method is the extent to which it includes equity and distributional analysis within its principles and process. Table 3.2 shows for each method the extent to which distributional analysis features overall, the amount of guidance that is given on how the analysis should be carried out and a summary of relevant elements from key documents.

3.3.1 The profile of distributional analysis

Whilst the assessment of the profile of distributional analysis (column 2 in Table 3.3) for each method is open to a degree of judgement, there are only three methods in which distributional analysis has a ‘high’ profile – Health Impact Assessment, Health Equity Audit and Equality Impact Assessment. In each of these cases there is a strong ethic or principle underlying the method which focuses on analysing and addressing inequalities and is (or should be) fundamental to why and how it is used. Health inequalities have become a major focus for health policy in the UK, whilst Equality Impact Assessment is clearly also fundamentally focused on inequalities, although from a starting point of anti-discrimination legislation. Health Impact Assessment is the one method for which it is possible to identify examples of what are effectively environmental justice distributional analyses which have been undertaken in the UK. The examples listed in Appendix 2 (with links to web documents) provide cases of distributional analysis focused around environmental justice topics. These are HIAs for a proposal to burn tyres in a cement kiln to replace coal in Rugby; the Draft London noise strategy; the London Mayoral Strategies for transport, air quality, biodiversity and municipal waste management; and examples related to fuel poverty in Westminster and Wales. The treatment of distributional inequalities in these HIAs is rather rudimentary and often qualitative, but they provide an important starting point for impact assessment for EJ at least where health issues are concerned.

Four methods currently give a low or very low profile to distributional analysis – EIA, SEA, Sustainability Appraisal and Integrated Appraisal within the environment agency. EIA is most fundamentally lacking any inclusion of distributional elements (both in terms of guidance and practice). SEA is only starting to take shape but the Directive is not explicit on including a concern for distribution of environmental impacts across populations and guidance produced so far does not provide a strong steer in that direction (reflecting its similar status in the preceding guidance on Sustainability Appraisal). Integrated Appraisal within the EA has some recognition of the need to identify impacts on different groups (and different generations) but this does not have a high profile and guidance is very brief.

The remaining methods (rated as medium profile) all include distributional analysis as an element of the appraisal which it is expected will feature when the method is applied. However, the focus on distribution or inequality is not fundamental to the method in the same way as it is for those in the high profile category.
<table>
<thead>
<tr>
<th>Impact Assessment Tool</th>
<th>Profile of Distributional Analysis</th>
<th>Guidance on Distributional Analysis</th>
<th>Summary of Distributional Analysis Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Impact Assessment</td>
<td>Very Low</td>
<td>None</td>
<td>No specific requirements within EIA regulations (or associated guidance. EIA practitioners recognise that the environmental effects of developments often have social outcomes, but the assessment of these effects remain rare in practice, and the social distribution of environmental effects of development has not featured in UK EIAs to date.</td>
</tr>
<tr>
<td>Strategic Environmental Assessment</td>
<td>Low</td>
<td>Little</td>
<td>There is no specific requirement for environmental equity appraisal under either the SEA directive or UNECE SEA protocol - but its inclusion is enabled by their instruments and processes. Through the process of participatory scoping of themes and objectives, and selecting indicators and targets, environmental equity may be included in an SEA if stakeholders see this as important. Draft ODPM guidance on SEA of development plans has a social inclusiveness theme, under which a possible SEA objective is to redress inequalities related to age, gender, disability, race, faith and deprivation, regions and localities. The guidance also includes a SEA quality assurance checklist. SEAs that consider equity issues are identified as preferable, although the checklist is advisory, not prescriptive or mandatory. The advice suggests that the purpose of equity appraisal in SEA is to ensure that strategic actions help to redress inequalities (and by extension environmental inequalities as the advice relates to the SEA directive), or at least not exacerbate current inequalities. Scottish guidance on implementation of SEA is stronger on environment equity as a main theme.</td>
</tr>
<tr>
<td>Social Impact Assessment</td>
<td>Medium</td>
<td>Some</td>
<td>SIA is concerned with assessing (usually predictively) a wide range of social impacts and changes. All of the guidelines on SIA include equity as part of the principles and/or goals of SIA. International Association for Impact Assessment principles of SIA state that ‘The goal of impact assessment is to bring about a more ecologically, socio-culturally and economically sustainable and equitable environment’. The US Guidelines on SIA 2003 update have a strong and direct inclusion of environmental justice. Principle 5 is to ‘ensure that any environmental justice issues are fully described and analyzed’. SIA has though been little applied in the UK and substantial distributional analysis has not figured in many examples to-date.</td>
</tr>
<tr>
<td>Health Impact Assessment</td>
<td>High</td>
<td>Some</td>
<td>There is no required specification for HIAs, but all of the adopted guidelines/models indicate the need to examine the distribution of impacts on health amongst different social groups. For example, the HIA Gateway of the Health Development Agency includes equity as one of the fundamental</td>
</tr>
</tbody>
</table>
principles underlying HIA (along with democracy, sustainable development, science and robust practice and a holistic approach to health). The HDA Guidance on Addressing Inequalities through HIA states that ‘Addressed properly, HIA can provide a valuable tool for stimulating the development of socially just policies and proposals that robustly and transparently consider the ways in which ‘winners’ and ‘losers’ will be created, and that take steps to manage this’. A range of challenges in undertaking analyses of inequality are recognised including setting boundaries to the HIA, involving communities and identifying those affected.

| Health Equity Audit | High | Substantial | Distribution analysis or the carrying out of a ‘health equity profile’ is fundamental to health equity audit. Step 2 of the cycle as guided by the DoH includes actions including obtaining data on health inequalities within an area, identifying factors driving health inequalities, making comparisons and identifying weaknesses in data. In relation to EJ concerns HEA potentially provides for the analysis of the distribution of access to environmental resources which influence health such as nutritious food, adequate housing and so on. |
| Well-Being Power and WB Impact Assessment | High | Little | Guidance on the use of the Local Authority ‘well-being power’ includes the need to consider tackling social exclusion, neighbourhood regeneration and health inequalities so therefore has a distributional remit. Guidance also emphasises that three dimensions of wellbeing power can be used in combination therefore enabling linking between the social and environmental, and the linkage to community strategies also promotes an integrated approach. There are very few examples of a ‘well-being assessment’ but those examined relate to regeneration projects which are particularly concerned with deprivation. |
| Gender Impact Assessment | Medium | Some | Distributional analysis is intrinsic to GIA with an emphasis on gender differences. The Woman and Equality Unit guidance document specifically addresses distributional analysis within the framework’s checklist questions for each stage of the process. For example Within Step 2 advice is to Collect statistics disaggregated by sex and at the same time, consider the potential for collecting data covering minority ethnic groups, people with disabilities, age, religion and sexuality. The GIA framework is however broadly conceived and the depth of analysis likely to be undertaken is limited. |
| Fuel Poverty Analysis | Medium | Little | The UK Fuel Poverty Strategy does not include distributional analysis as such but includes definitions of fuel poverty households (for England, Wales and Northern Ireland). These definitions take into account households on low income, vulnerable households (those containing children or people who are elderly, sick or disabled), households in rural areas do not have access to the gas network and households who live in underoccupied dwellings. In order to carry out effective fuel poverty strategies local authorities need to consider and measure the existing prevalence of fuel poverty in their area and the local causes and aggravators as well monitoring progress on fuel poverty. The Scottish Executive have produced ‘Fuel poverty guidance for local housing strategies’ which states that a fuel poverty analysis must measure 3 factors for each household: income; |
household energy efficiency (NHER); and fuel cost. No separate guidance on fuel poverty measurement for local authorities was identified for England, Wales and Northern Ireland, but the UK Fuel Poverty Strategy includes a suite of fuel poverty indicators falling into the three main areas of income, fuel prices and housing.

| Equality Impact Assessment | High | Substantial | Analysis of differential impact is fundamental to equality impact assessment which is focused primarily on discrimination and used principally in Northern Ireland. The practical guidance by the NI Equality Commission describes the sort of data collection and research that should be carried out in order to judge the impact on the included groups. This includes a detailed set of checklist questions regarding the differential impacts revealed by qualitative or quantitative data, the type of differential impact revealed, the extent to which this is directly or indirectly discriminatory, the alternative policy measures or mitigation which could applied to reduce adverse impacts. |

| Regulatory Impact Assessment | Medium | Some | Distributional analysis is a necessary part of an RIA, although the emphasis has until recently been towards identifying different types of organisations (firms, charities, voluntary sector) that could be affected. Guidance states that costs and benefits to business sectors (and types and size of business) must be calculated including environmental and social benefits and costs and distributional impacts, the key groups that could be disproportionately affected must be identified (step 5) and the impact to small firms considered (step 6). While there is an emphasis throughout on economic impacts, the need to incorporate and cost social and environmental impacts and their distribution is also expected to be part of the RIA remit and has been strengthened in revisions applying from April 2004. The principal of sustainable development is referred to and it is stated that this requires that ‘costs be considered in policy appraisal so that the welfare (social, economic and environmental) of future generations is not compromised. Therefore the cost-benefit analysis must take account of a wide range of costs and benefits, which may be broadly categorised in 3 groups: social values and progress; environmental protection; and the economies long-term growth and development.’ Principles of equity and fairness are also discussed with guidance stating that ‘you should ensure that your chosen option does not inadvertently create new groups of vulnerable people.’ |

| Green Book Guidance | Medium | Substantial | The latest edition 2003 of the Green Book places ‘a greater emphasis on assessing the differential impacts of proposals on various groups in society’ than preceding versions. Annex 1 discusses the rationale for government intervention via a policy, programme or project. Equity is the second of two primary reasons for intervention. A cost-benefit approach is emphasised and the guidance discusses how to adjust the values of costs and benefits in options appraisal because of distributional effects and intergenerational effects (using discount rates). Annex 5 provides more detailed guidance on how distributional impacts should be assessed and advises that ‘Any distributional effects identified should be explicitly stated and quantified as far as
At a minimum this requires appraisers to identify how the costs and benefits accrue to different groups in society.

| Assessment of Impacts of Spatial Interventions | Medium | Some | The ODPM guidance has a focus on economic issues but adopts an integrated approach in which economics is both a particular area of focus (e.g. for economic regeneration or regional economic development) and also a way of integrating social and environmental issues within an overall assessment framework. Distributional issues are seen as always a very important question and it is stated that 'distributional analysis should always be a component of appraisal and evaluation (although this will often only need to be qualitative)' Distributional analysis is recognised as an area where practical guidance is lacking, and some attempt is made to improve on this through the use of some examples of different approaches (impact matrices, Lorenz curves, use of the IMD to apply distributional weightings in CBA).

| Consumer Impact Assessment | Medium | Little | NCC guidance outlines the questions that policy-makers should ask and presents an easy-to-follow timetable for the key stages of a consumer impact assessment. Identifying and quantifying the impacts (positive and negative) of a policy or regulation on consumers is central to the CIA. These assessments measure the consequences of the policy/regulation on each consumer/consumer group including the need to consider disadvantaged consumers such as those on a low income.

| Transport Appraisal | Medium | Some (fuller guidance yet to be made available) | Distributional analysis is important part of the new approach to Transport Analysis. It is included in the form of 'distribution and equity supporting analysis' which is completed alongside the principal appraisal summary table. The TAG guidance advises that various social groups are included such as income, gender, race, economic impacts on transport users and public sector transport providers etc. The guidance provides examples of the kinds of distributional analysis which could be carried out and ought to be considered. The DIT is in the process of reviewing and revising the treatment of distributional issues in transport appraisal so that whilst the latter general guidance is available, detailed guidance on how to undertake distributional analysis is yet to be made available.

| Sustainability Appraisal | Low | Little | Distributional analysis is recognised as relevant to sustainability appraisal and in DETR (2000) there are two paragraphs which relate to this under the heading ‘who benefits’ (note this orientation rather than who suffers). The guidance reproduced in full notes that the appraisal process does not explicitly deal with distributional questions, but that it might be relevant in some situations. This does not therefore help ensure that distributional impacts are routinely considered and the guidance suggests a ‘commentary’ will be adequate rather than a more detailed analysis. However the recommended matrix framework used in the DTER guidance for recording the appraisal has an entry within the ‘social progress which meets the needs of everyone’ heading which is intended to assess the plan against the objective ‘To reduce disparities in income, and access to jobs, housing, and services between areas within the region and between segments of the population’. This suggests that distributional questions should be more central despite the guidance noted above.
<table>
<thead>
<tr>
<th>Integrated Policy Appraisal (UK)</th>
<th>Medium</th>
<th>Substantial</th>
<th>Distributional dimensions figure in the overall description of what IPA is: ‘IPA provides a framework within which the economic, social and environmental impacts of policy options and their distributional effects in relation to different groups of people (e.g. the elderly, those on a low income) can be assessed’ The original DTLR screening checklist used at stage 1 of the IPA prompts for qualitative and quantitative assessments in 13 areas, including air quality, landscape, biodiversity and noise. On a separate table it then asks for a description (quantified if possible) of distributional impacts in respect of ‘deprivation and income groups, age, gender, disability, race, regions and localities, rural areas, small firms, other groups’ The guidance here states that ‘Policy making involves considering not only the overall impacts of a policy or project, but also how the impacts will vary across different groups of people. Few policies affect everyone equally. Supplementary guidance produced by DTLR goes into more detail for each of the impact areas and population groups. Under the guidance on distributional impacts references are made to impact assessment tools such as HIA and GIA.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrated Appraisal (Env Agency)</td>
<td>Low</td>
<td>Little</td>
<td>The first version of the guidance checklist does not explicitly address distributional analysis by social variables, but various of the checklist questions asked do address some aspects or could be interpreted as requiring or enabling equity analysis.</td>
</tr>
</tbody>
</table>
3.3.2 Quality and depth of guidance on distributional analysis

The third column in Table 3.2 indicates, for each of the assessment methods, a qualitative judgement on the quality and depth of guidance provided on how to undertake distributional analysis. There is a rather patchy picture overall.

In five cases, substantial and fairly detailed guidance on how to do distributional analysis is available - Health Impact Assessment, Health Equity Audit, Equality Impact Assessment, Green Book and Integrated Policy Appraisal. In the best cases this guidance includes a discussion of the qualitative and quantitative approaches that can be taken, the types of social variables to be examined, data sources, analysis methods and the difficulties and limitations that invariably materialise. It is important to note, however, that none of this guidance provides substantial examples or discusses issues involved in undertaking distributional analysis specifically in relation to the environment. The guidance material that does most directly refer to environmental justice concerns is for Transport Analysis where the website refers to undertaking distributional analysis in relation to air quality and noise impacts from traffic.

Guidance for other methods ranges from a very simplistic listing of the types of population groups that may need to be considered in undertaking a distributional analysis, to a more substantial but still limited discussion of data sources and techniques.

Most of the evaluative research we have reviewed that has specifically considered distributional elements of assessment methods, has highlighted the need for improved guidance on how to undertake distributional analysis. For example, in the case of HIA, this need has to an extent been addressed in recent guidance produced by the Health Development Agency, but there is still a lack of sufficient detail particularly for more quantitative approaches. The evaluation of the Integrated Policy Appraisal pilot specifically identified difficulties with completing the distributional element of the checklist because there were no detailed questions specified in the relevant section of the IPA. As a consequence consideration of the issues had tended to be superficial (although the DEFRA version of the IPA screening template has added specific questions to good effect). Further guidance on distributional analysis and social inclusion has also emerged as necessary from evaluation of the use of Transport Analysis methods.

3.3.3 The population groups included

The project brief provided a checklist of which population groups the FoE considered were relevant to distributional analysis within impact assessment. This checklist consisted of:

‘impacts on people, including specific groups of people, including health effects, effects on future generations, effects on people in other countries, and effects on different income groups in the UK’

Table 3.3 indicates which population groups are included as relevant in the guidance for each of the assessment methods, including the key categories identified in the FoE checklist. Where a tick is given there is an explicit mention of the population group in the guidance. Where a question mark is indicated there is something in the guidance which could be interpreted or inferred as covering the population group. For
example, a reference to considering differential impacts over time, can be interpreted as enabling the inclusion of intergenerational distributional impacts, even though these might not explicitly be mentioned.

In interpreting Table 3.3 it should be remembered that the table cell entries relate only to the published guidance for each assessment method, not to how that guidance is interpreted or applied in practice. Just because guidance mentions a population group does not necessarily mean that in practice the impacts on that population group will in fact be assessed. In addition, in the guidance for some impact assessment methods catch-all phrases are used such as ‘relevant sections of the population’ which could be interpreted as covering all of the population categories.

Table 3.3 shows that the emphasis given to the groups varies across the methods. With a few exceptions most methods incorporate the key social/demographic parameters within distributional analysis – deprivation, age, gender, disability, ethnicity. The more general notion of ‘vulnerable people’, related usually to potential health impacts, is also included in most of the methods. Here the emphasis is on the need to identify ‘vulnerable groups’ who may be particularly susceptible to impacts (for example from air pollution) due to pre-existing health, social or demographic characteristics. It is notable, however, that the Better Regulation Task Force report on Protecting Vulnerable People, which is indicated as a key source in guidance on RIA, fails to recognise the breadth of environmental dimensions of vulnerability.

For some methods one way of differentiating population is dominant - for example, Gender Impact Assessment, not surprisingly focuses primarily but not exclusively on gender issues.

Whilst most methods do refer to ‘deprivation’, there can be a tendency, particularly within those methods using cost benefit analysis, for this to be equated with income, which is a much more limited indicator.

The last two columns on the table are the most empty and show that very few methods implicitly or explicitly recognise the need to take account of spatially distant populations (e.g. populations in other countries) or potential impacts on future generations.

Only three methods explicitly mention or infer the inclusion of impacts on people in other countries. For SEA the driving factor is the transboundary dimensions of EU legislation, although this is usually seen as of little significance to the UK due to our island status. However, within the SEA legislation if significant transboundary impacts are possible then the SEA assessors have to inform the Secretary of State who then liaises with the impact country, ensuring that the UK SEA is integrated within the other country’s SEA process. Whether or not this provision could be used to explore impacts that are not directly transboundary, but relate, for example, to more globalised north-south concerns or impacts arising through climate change on other parts of the world, is uncertain.

The Green Book also refers to impacts on people in other countries, but directs that these should be seen as less relevant than impacts on people in this country. In section 5.25 footnote 4 of the Green Book it states that ‘all impacts (including costs and benefits, both direct and indirect) on non-UK residents and firms should be identified and quantified separately where it is reasonable to do so, and if such impacts might affect the conclusions of the appraisal. Generally, proposals should
not proceed if, despite a net benefit overall, there is a net cost to the UK (for instance, after taking into account environmental costs).’ The last sentence makes it clear that it is the cost to the UK which is the dominant consideration, even if there are benefits outside of the UK which balance or outweigh these.

Transport Analysis incorporates impacts on people in other countries and states that in some cases these will be particularly significant. The example given is superficial relating to airports and ports where the user benefits from a public transport scheme to connect to the facility may substantially benefit travellers and tourists from abroad. Here again though the provision could, in principle, be used to consider global and international environmental impacts through climate change and regional transfers of pollutants.

Only four methods explicitly refer to future generations. The inclusion of future generations in EA integrated appraisal is to an extent surprising given that other dimensions of distributional analysis are poorly specified within this method. The assessment however goes no further than a checklist entry.

The Green Book, RIA and Transport Analysis use similar cost-benefit techniques which directly incorporate impacts over time through the application of discount rates. Guidance in the Green Book explicitly refers to future generations and discusses some of the issues involved and the approach that can be used to calculate net present values (converting all present and future cost and benefits into a common metric). However, the RIA guidance also states that the period over which discounting is applied is usually 10 years, which is too short for incorporating substantial intergenerational impacts.

Other methods can be inferred to be potentially addressing impacts on future generations through the expectation that impacts over time are addressed. However, this is usually discussed in the context of the different phases of a development project (e.g. construction, operation, decommissioning).
<table>
<thead>
<tr>
<th>Impact Assessment Tool</th>
<th>Deprivation or Income</th>
<th>Gender</th>
<th>Age</th>
<th>Ethnic</th>
<th>Disability</th>
<th>Other</th>
<th>Vulnerable groups</th>
<th>Future generations</th>
<th>People in other countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic Environmental Assessment</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>?</td>
<td>?</td>
<td>✓</td>
</tr>
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<td>Social Impact Assessment</td>
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<td>✓</td>
<td>?</td>
<td>?</td>
<td>✓</td>
</tr>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Health Equity Audit</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Gender Impact Assessment</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Fuel Poverty Analysis</td>
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</tr>
<tr>
<td>Equality Impact Assessment</td>
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<tr>
<td>Regulatory Impact Assessment</td>
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<td>✓</td>
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<td>✓</td>
</tr>
<tr>
<td>Green Book Guidance</td>
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<td>✓</td>
</tr>
<tr>
<td>Assessment of Impacts of Spatial Interventions</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>?</td>
</tr>
<tr>
<td>Consumer Impact Assessment</td>
<td>✓</td>
<td>✓</td>
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<td>✓</td>
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<td>✓</td>
<td>✓</td>
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<tr>
<td>Transport Analysis</td>
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</tr>
<tr>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>?</td>
</tr>
<tr>
<td>Integrated Policy Appraisal (UK)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>?</td>
</tr>
</tbody>
</table>

✓ = group explicitly mentioned in guidance;  ? = Could infer/interpret that group is covered by assessment tool;  blank = group not mentioned explicitly or by inference
3.3.4 The impact of distributional analysis in the appraisal process

Whilst the first step in ensuring that distributional impacts are assessed is to have them included in some way in the appraisal process, it is also important to consider what the outcome of undertaking the distributional analysis might be. Are decisions in practice influenced or changed by the fact that distributional analysis is undertaken, or are the effects on social groups briefly considered as part of the appraisal and then ignored?

It is often problematic to establish the outcome that any impact assessment process has achieved. For example, research examining the outcomes of project-based EIA has generally found that there are few cases where a development has not proceeded because of the results of the EIA. More often some changes to the proposed development that mitigate environmental impacts can be pointed which arise from the EIA. Similar findings have been reported for Sustainability Appraisal.

As noted in the next section, there is little evaluative research that has focused on the use of distributional analysis within impact assessment, so it is difficult to therefore be at all definitive about what difference distributional analysis has made in practice.

Most of the impact assessment methods rely upon a checklist approach taking the form of a brief summary of any expected differential impacts on the population group of interest. Whilst this may be underpinned by a more substantial analysis, this appears to rarely be the case. The evaluation of the pilot IPAs (which uses a checklist) noted that for distributional impacts policy makers consideration ‘tended to be superficial and there appeared to be a tendency of the piloters to decide that there were no impacts, even if, on being prompted, they recognised there might be’ (Etheridge, 2003). Most methods using checklist approaches therefore enable distributional impacts to be briefly recognised, without any following action being required. Distributional effects sit alongside the other aspects of the assessment as information which may, or may not, influence decision-making relating to the relevant policy, plan or programme.

Some methods do though have mechanisms or ‘trigger points’ which mean that the results of the distributional analysis can lead to a more substantial and potentially significant impact on decision outcomes. These take one of two forms.

1. Legislative trigger. For equality impact assessment most explicitly, but also other methods, compliance with anti-discrimination legislation provides a point at which policies may have to be changed or potentially abandoned. If a policy can be considered to be clearly or potentially open to challenge on grounds of discrimination then guidance is clear that action should be taken. Whilst there may be some potential to use anti-discrimination and human rights law to pursue environmental justice concerns (Adebowale 2003), the extent to which this possible, and therefore could be a trigger in appraisal processes, remains uncertain.

In the case of SEA legislation there is a specific requirement related to the identification of transboundary impacts on other countries. As noted earlier, where these are identified the Secretary of State has to be informed so that liaison with the other country affected can be carried out.
2. Decision Criteria. The Green Book, RIA, AISI and Transport Analysis all have a common methodology which in principle can build distributional impacts in the monetary valuation of the costs and benefits of a proposal (although the transport analysis method incorporates this alongside a more involved multi-criteria approach). There are two dimensions here. First, the use of equivalised gross income to apply a distributional weighting within the cost benefit analysis that relates to impacts on different income groups. Second the use of discounting to take account of impacts over time and on future generations. In principle, through both of these mechanisms the final outcome of the cost-benefit process – the judgement as to whether or not benefits exceed costs – should be directly influenced by distributional effects. This is reinforced by the statement in the Green Book that ‘adjustments will often be required to take account of distributional impacts’ (section 5.3.2) However, in practice the impact of distributional analysis may not be significant and may even serve to work against the interests of the differentiated population groups. There are a number of reasons for this:

- the methodology used may work against giving sufficient or indeed any weight to distributional impacts against other factors e.g. due to level of discounting of future costs and benefits and the way that equivalised gross income is calculated
- only income related distributional impacts are easily quantified, others are normally recognised only in a qualitative way
- in practice distributional effects may not even be recognised. For example, scrutiny of a few examples of RIA reports gives little confidence that a thorough analysis has been undertaken. For example the section on equity and fairness in the Aviation White paper RIA simply states that ‘other than airports there are no groups likely to be disproportionately affected’. This is despite earlier analysis which does recognise significant local noise and air pollution impacts and wider climate change contributions.

One interesting adaptation of the Green Book approach is used in the appraisal of flood defence investments. Some adjustment for vulnerability and deprivation is explicitly built into the process for evaluating applications for capital grants for flood and coastal defence. A scoring system is used built up from economic, people and environment parameters. The population parameter reflects total numbers of people at risk from flooding but this is then adjusted using the index of deprivation as an indicator of vulnerability. The score is related to the ranked scale of deprivation by ward. Wards with a less vulnerable ranking have their priority reduced, whereas those assumed to be more vulnerable have increased priority for receiving capital grants. This scoring approach avoids the need for the monetary quantification of impacts and could be adapted to take account of a range of distributional considerations.

3.4 Evaluations of Impact Assessment Methods

The information provided in Appendix 2 for each method includes, where available, a summary of any evaluative work which has been undertaken examining the extent of use of the method, quality of assessments produced, strengths and limitations etc.. This particularly focuses on any evaluation of the distributional elements of each method.
Overall, few of the impact assessment methods have been formally and substantially evaluated, in part because most are relatively newly developed. Distributional analysis elements are generally identified as a weakness where such evaluation has taken place.

A summary of the more substantial evaluations that could be identified for 5 of the impact methods is provided below.

*Environmental Impact Assessment* is perhaps most thoroughly evaluated with a succession of studies examining different aspects of EIA implementation in practice. Such evaluation played a role in the revision of the European Directive and the development of additional guidance, for example, on the scoping stage of EIA. Whilst EIA is being carried out pretty much in all situations that it ought to be (because of the legislative requirement), weaknesses in the environmental statements produced have been repeatedly identified. The treatment of socio-economic aspects has been highlighted as a general weakness of the implementation of EIA in the UK (Glasson and Heaney, 1993) with a lack of best practice guidance and cursory treatment in many environmental statements. In terms of any distributional element, a rigorous analysis of 110 environmental statements submitted 1993-98 found that none of these even mentioned the potential distributional effects of the project involved (Chadwick, 2002)

*Health Impact Assessment* has been subject to fairly frequent evaluation, but not often that substantial in nature. A ‘review of reviews’ on HIA for the Health Development Agency found that there are wide gaps in the evidence base and few substantial reviews of HIA effectiveness (Taylor and Quigley 2002). Parry and Scully (2003) specifically focus on the consideration of health inequalities within HIAs in the UK. They argue that whilst the importance of HIA for addressing health inequalities has been highlighted in key government papers and reports (such as the Acheson Report), in practice not all HIAs undertaken in the UK have followed the models or guidance on distributional analysis and ‘few have considered the effects of public policies on health inequalities in a robust or reliable manner’. This is, in part, due to methodological and conceptual difficulties involved in:

- defining which population sub-groups to include
- the stage at which population sub-groups are defined (either before or during the assessment)
- precisely defining sub-groups (e.g. what is low income, vulnerable, ethnicity)
- linking health impacts to specific sub-groups

Because of these difficulties they recognise that the argument could be made that HIAs cannot currently deal with inequalities with any real confidence. However, they contend that standard profiles for inequality assessment could be developed (e.g specifying ‘must have’ sub groups within all assessments which they suggest would be sex, age, ethnicity and socioeconomic status) and that the ‘inclusion or exclusion of other relevant sub-groups be determined by clear stated and transparent criteria’.

Overall they consider assessment of inequalities within HIA to be too important to be omitted from HIAs, particularly in highlighting the significance of inequality issues to decision-makers at a local level.

Different models for *Gender Impact Assessment* have been evaluated by Rubery and Rake (2000) in a report to the European Commission. They suggest that the Womens Equality Unit’s framework makes explicit the need to accept and value equally the differences between men and woman and the diverse roles they play in society. This they argue provides a more adequate framework for gender mainstreaming than the UK government approach which has equated mainstreaming
with targeting all disadvantaged groups. Also, the focus of the WEU is not on gender proofing and justifying existing policies but on introducing GIA at an early stage in the decision making process so that changes and even the redirecting of policies can take place. However, this is an evaluation of models not an evaluation of how these are, in practice, being applied.

*Integrated Policy Appraisal* has been evaluated through a pilot programme run across seven different government departments. The evaluation report (Etheridge 2004) concluded while the IPA had the potential to support better policy making, some key issues would need to be resolved if it were to be used more widely including the need for a proactive cross-Whitehall owner, ideally the Cabinet Office or Treasury, support functions within each department and ministerial support. Experience of using IPA had been largely positive in that the tool was useful and user friendly, it made policy makers more aware of the range of appraisal requirements that exist, it improved transparency, and could reveal the wider impacts on sustainability of a policy. However it is also noted that IPA alone was unlikely to cause a ‘radical change in the level of sustainability of all of Whitehall’s policy proposals’ without an accompanying commitment to sustainability, and a better understanding of what it means for all Departments.

Specifically on distributional analysis it is noted that IPA did help policy makers identify social issues that they might otherwise have missed or considered only in passing. However it is also noted that as the distributional impacts section of the IPA did not contain any detailed questions, the quality of the distributional analysis was not good – ‘policy makers consideration of these issues tended to be superficial and there appeared to be a tendency for the piloters to decide that there were no impacts even if, on being prompted, they recognised that there might be.’ (para 33)

There have been a number of evaluations of different applications of the *Transport Analysis* methodology (e.g. Walton and Shaw 2003). An evaluation of the 21 ongoing or completed Multi-Modal Studies sought to establish the effectiveness of the MMS process in delivering integrated and robust transport strategies assessed in accordance with the GOMMMS methodology (Bates *et al.* 2004). The overall conclusions on appraisal are that the GOMMMS advice is fit for purpose. However, they suggested that further work could be done to develop the advice on sustainability, social inclusion and regeneration ‘economic regeneration and social inclusion are important topics where the GOMMMS guidance is relatively weak and capable of improvement’.

Sayers *et al.* (2003) suggest that although the transport analysis methodology has made progress towards a more inclusive approach, it lacks guidance to decision-makers as to how the multi-criteria information about alternative projects should be used to identify the preferred option. This could lead to a lack of clarity, consistency and accountability in a crucial part of the decision-making process.

Overall, the evaluative evidence that is available suggests that distributional analysis is either not being carried out, or not being carried out very well within impact assessment. There is a need for more detailed and thorough guidance and greater clarity as to how distributional factors, alongside many others that are relevant, should figure in the decision-making that the impact assessment method is seeking to inform.
4 Distributional analysis policy assessment in other parts of the world

Three examples of policy assessment practice are reviewed in this section, one from Europe and two from the United States.

4.1 Impact Assessment in the Commission of the European Communities

A commitment to undertake Impact Assessment was made in a communication from the CEC in May 2002 with an intention to introduce this from 2003 for 'all major initiatives'. Fully detailed assessments are however not to be undertaken until 2004/5.

Impact Assessment (IA) is seen by the CEC as a 'a tool to improve the quality and coherence of the policy development process. It will contribute to an effective and efficient regulatory environment and further, to a more coherent implementation of the European strategy for Sustainable Development'. Other statements emphasise the need to avoid over-regulation.

A brief definition is a tool which 'identifies the likely positive and negative impacts of proposed policy actions, enabling informed political judgements to be made about the proposal and identify trade-offs in achieving competing objectives'. IA is intended to integrate, reinforce, streamline and replace all the existing separate impact assessment mechanisms. IA is intended to replace existing requirements for business impact assessment, gender assessment, environmental assessment, small and medium enterprises assessment, trade impact assessment and regulatory impact assessment at a policy level within the CEC.

IA involves a two stage process which is similar in some ways to the UK Integrated Policy Appraisal procedure. The first preliminary stage defines scope and filters those proposals that need to go to second stage of an extended assessment, which involves an in depth analysis of economic, social and environmental impacts and consultation with stakeholders. The principle of ‘proportionate analysis’ is to be followed so that the depth of analysis reflects the scale/significance of impacts.

Guidance on the use of Impact Assessment does include distributional analysis. At the preliminary stage the assessment outline includes the following prompt:

‘On a preliminary basis please indicate the expected positive and negative impacts of the selected options, particularly in terms of economic, social and environmental consequences. Please indicate who is affected and possible severe impacts on a particular social group, economic sector or region (inside or outside the EU), in the short term; in the medium and long term’

For the extended analysis similar guidance is given:

‘Depending on the issue at hand it will be made clear which social group, economic sector or region is affected by a given impact; when relevant distributive effects will be analysed and internal (within the Union) and external impacts (outside the Union) will be shown separately’
Potentially any population group both within and beyond the EU could therefore be identified within a distributional analysis. Intergenerational dimensions are not explicitly flagged, although ‘impacts over time’ are expected to be assessed in an extended IA. The IA Guidelines include brief examples of how preliminary Impact Assessments could be completed for the National Emission Ceiling Directive and a revision of legislation on ‘pre-packaging ranges’.

A recent report by IEEP (Wilkinson et al 2004) has evaluated the practice of IA during its first year of operation (2003) focusing particularly on how well sustainable development issues have been addressed. This evaluation arrived at conclusions and recommendations which, whilst supportive of IA in principle, are quite critical of its implementation to date. The evaluation found that:

- Of the 580 proposals listed in the Commission’s 2003 work programme, all were put through the initial preliminary stage of assessment, but only 43 were then formally identified as requiring extended assessment. However, those not selected included several with significant effects on aspects of sustainable development.
- The criteria for the selection of proposals for extended IAs have been unclear.
- The system as a whole has not been transparent, with many of the assessments not readily available to the public.
- The quality of the 2003 extended assessments has been uneven, and several of them have been poor.
- There are no formal arrangements for involving Member States in impact assessments, even though it is often only Member States who are able to provide the Commission with national data, and details of likely implementation arrangements and their consequences.
- Approaches to stakeholder consultation have also varied widely between DGs. Generally, industrial interest groups have been more closely engaged than environmental or social groups, reflecting their considerably greater resources.
- The range of impacts assessed is limited and falls well below the number proposed in the Commission’s Guidelines. Little explicit attention is given to issues of sustainable development, or to trade-offs between its different elements. Most attention is paid to economic impacts.
- The treatment of environmental and particularly social impacts is limited. Most impacts are discussed in qualitative terms. Where quantification is attempted, most attention is paid to short-term economic costs. Few attempts are made to quantify longer-term environmental or social benefits.
- The international impacts of the proposals were rarely assessed effectively.

Whilst, as noted above, the treatment of social impacts is considered particularly weak, the evaluation makes no specific comments about the quality or depth of any distributional analysis that has been undertaken.
A further impact assessment methodology that is being developed by the European Commission is Sustainability Impact Assessment (SIA). This is applied to trade policies such as the WTO agreements and does very explicitly attempt to assess the distributional international impacts of policy, including environmental impacts. SIA could not however be reviewed in depth in this project – see http://www.sia-trade.org/wto/ for more information.

4.2 US EPA and Environmental Justice Analysis

All Federal agencies in the US are legally mandated to achieve environmental justice (EJ), under the 1994 Presidential Executive Order 12898. This requires all Federal agencies to make environmental justice part of their mission by identifying and addressing effects of programs, policies and activities (note the parallel with SEA) on “minority and low income populations”.

In the campaigning leading up to the presidential Executive Order in 1994, an attempt was made to introduce an environmental justice analogue to EIA under the National Environmental Policy Act. The ‘equity impact statement’ was proposed by a coalition of activist organizations that would ‘be required for all major federal regulations, grants, and projects’ incorporating ‘a presumption equally protecting all people from pollution’. This proposal was not adopted by the administration (Foreman, 1998).

However, the Executive Order has led to versions of equity or environmental justice analysis/appraisal being applied by Federal Bodies. This section discusses the practice of the EPA, followed by federal transport agencies in the next section.

For the EPA, environmental justice concerns have been focused on industrial and waste sites and, as is the case generally in the US, on issues of race and ethnicity. Policy has not been very prescriptive on a national level, with the EPA regions developing their own approaches and practice consequently varying considerably from area to area (for this reason generalisations are difficult). However, the general guidance that has been developed is still of significance.

The EPA guidance of how to incorporate environmental justice in Clear Air Reviews (USEPA 1999) positions environmental justice with the National Environmental Policy Act (NEPA). Cross-referencing Council for Environmental Quality guidance it states that:

‘Environmental justice issues may arise at any step of the NEPA process and agencies should consider these issues at each and every step of the process, as appropriate’

‘In preparing an EIS or an EA, agencies must consider both impacts on the natural or physical environment and related social, cultural, and economic impacts’.

The significance of environmental justice concerns within NEPA is then discussed:

‘The Executive Order does not change the prevailing legal thresholds and statutory interpretations under NEPA and existing case law. For example, for an EIS to be required, there must be a sufficient impact on the physical or natural environment to be "significant" within the meaning of NEPA. Agency consideration of impacts on low-income populations, minority populations, or Indian tribes may lead to the
identification of disproportionately high and adverse human health or environmental
effects that are significant and that otherwise would be overlooked’

‘Under NEPA, the identification of a disproportionately high and adverse human
health or environmental effect on a low-income population, minority population, or
Indian tribe does not preclude a proposed agency action from going forward, nor
does it necessarily compel a conclusion that a proposed action is environmentally
unsatisfactory. Rather, the identification of such an effect should heighten agency
attention to alternatives (including alternative sites), mitigation strategies, monitoring
needs, and preferences expressed by the affected community or population’

This guidance shows that whilst EJ concerns should be included in
environmental assessments in the US (in contrast to practice in Europe) there
are limits on the expected impact that an analysis of distributional equity is
likely to have. However, the criteria of ‘disproportionately high’ impacts is available
as a (vague and ill-defined) threshold or criterion that should justify action, and some
indication of the type of action to be considered is provided.

The provisions of Clean Air Act Section 309 require the Administrator of EPA
to comment in writing upon the environmental impacts associated with certain
proposed actions of other federal agencies, including actions subject to
NEPA’s EIS requirement. This in principle provides an important mechanism
to ensure that environmental justice concerns are adequately covered within
environmental assessments. Guidance as to how this process of scrutiny by the
EPA should be carried out focuses on the following questions:

- The adequacy of public participation particularly of low income and minority
  populations
- The adequacy of analysis of the characteristics of potentially affected
  communities
- How the criterion of ‘disproportionately high impact’ has been evaluated
- How environmental justice concerns have figured in the analysis of alternative
  actions
- How mitigation has addressed impacts on low income and minority communities
- How the overall rating of the environmental impact of the proposed action and the
  adequacy of the impact assessment has included environmental justice concerns

More detailed guidance for each of these questions is also provided.

Groups addressed by the EJ executive order are defined by the Title VI of the 1964
Civil Rights Act, and revised by a Office of Management and Budget policy directive
in 1997. A minimum of five groups were identified:

- Black
- Hispanic
- Asian
- American Indian and Alaskan native (native Hawaiian or other Pacific Islander
  added in 2000)
- Low income – a person or household whose median income falls below US
  Department for Health and Human Services poverty guidelines.

An area is designated as an environmental justice community if it is (a) more than
50% minority population, or (b) contains a minority percentage meaningfully greater
than the minority population percentage in the general population (or other geographically appropriate unit of analysis).

Whilst a thorough review has not been possible, the literature on EPA activity suggests that an area-based approach, which defines a community as having characteristics which warrant attention under the EJ policy, has been taken. The criteria used are based on demographic data (proportion ethnicity and/or low income) but designation of a community has also in practice depended on the degree of activism and complaint in the community living near to a regulated installation (Foreman, 1998; Holifield 2004). The action which then follows appears to have been highly variable (USEPA Office of Inspector General 2004), but a lot of the focus has been on participatory measures (meetings, information provision etc.) and the provision of grants and economic/employment initiatives for the local area, often including brownfield revitalization. A recent evaluative report (USEPA 2004) was critical of EPA implementation of environmental justice policy, concluding that it was insufficient, poorly coordinated across the regions, inconsistent in the identification and targeting of EJ communities, and the effectiveness of interventions was insufficiently evaluated.

A more positive evaluation of ‘partnership approaches’ adopted in some EPA regions (USEPA 2001) concluded that ‘partnerships are producing a variety of important results, including the improved opportunity for local residents and community organizations to have a genuine say in efforts to revitalize their communities, enhancement of relationships between stakeholders, implementation of environmental protection and other programs, and improved delivery of community assistance by public service organizations’ and that overall ‘the use of these approaches, as demonstrated within these partnerships, can be an effective means for addressing environmental justice issues in communities.’

### 4.3 US Federal Transport Agencies and Equity Appraisal

For Federal Transport Agencies the 1994 Executive Order was supplemented in 1997 by the US DOT Order to address environmental justice in low income and minority populations (Federal Highway Administration, 2000). The US DOT order applies to all transport decisions, from initial strategic planning through to post construction and maintenance, that are funded, undertaken or approved by any Federal transport body (FHWA, FTA). These actions include: policy decisions, systems planning, area planning, project development subject to EIA under NEPA, design, engineering, constructions, rights of way and operation / maintenance. This therefore provides a very wide ranging legal obligation applying to national, state, metropolitan and local transport policies, programmes, plans and projects.

Whilst there are specific requirements for distributional analysis, there are no specific methods that must be applied. The equity appraisal process requires a significant element of public participation, and equity issues and methods appropriate to their analysis, emerge from this process.

The technical appraisal of environmental equity is usually developed and applied with state Department of Transports. Metropolitan Planning Organisations serve as the primary body co-ordinating transport planning and its appraisal.

The key requirements of environmental equity appraisal are to:
• Avoid, minimise, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority and low income populations;
• Ensure the full and fair participation by all potentially affected communities in the transportation decision making process; and
• Prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low income populations.

No formal evaluation of US transport-environmental equity appraisal could be identified. However, the Federal Highway Administration web site provides a number of detailed case studies of efforts to address environmental equity in US transportation (Federal Highway Administration 2000b). These case studies address a range of activities (policy, plan etc), minority groups, and geographical areas and types (e.g. urban v rural). The case studies indicate that the requirement to address environmental equity in transportation has created additional demands on transport stakeholders (planners, providers etc), and that considerable flexibility and creativity have been required in order to assess and address identified inequalities. However, the case studies also indicate that the process of environmental equity assessment has led to transport systems in the application areas that are more equitable, and which can be delivered for no additional cost, or at a cost saving, due to the identification of more creative transport solutions through a more inclusive and substantive public participation process.
The overall conclusion of this review is that current impact assessment methods and their implementation in the UK are failing to provide an effective analysis of environmental justice issues in policy making and project approval. None of the 17 methods we have reviewed currently provide for effective distributional analysis focused on environmental justice concerns, particularly in the context of the breadth of definition of environmental justice applied by FoE. In some policy areas, particularly health, we have been able to be more positive about current practice, but even here the scope of distributional analysis is limited and there are problems with the quality and rigour of implementation.

The examples of practice in other countries that we have been able to review, do not provide model approaches to directly follow or adapt. The European Commission Impact Assessment methodology does not differ significantly from approaches used in the UK (although it has more political backing than Integrated Policy Appraisal). In the US, environmental justice policy has the strength of being backed by a powerful Executive Order and environmental justice is directly and explicitly factored into requirements for environmental assessments under NEPA. There is also detailed guidance on how the assessment of environmental justice concerns should be carried out, with a strong emphasis on public participation. Whilst some aspects of the US approach may therefore be usefully drawn on, it is also strongly shaped and limited by the emphasis given to civil rights and pollution/risk concerns above all others. Other dimensions of EJ – gender, age, intergenerational equity, access to environmental resources etc.. – are not addressed.

Impact assessment is, though, a rapidly evolving field and several of the methods of impact assessment we have reviewed are very new and yet to be substantially tested, refined and improved through evaluation in practice. There is therefore considerable scope for developing more effective EJ orientated distributional analysis at a time when considerable policy attention is being given to the interface between environmental and social justice policies. There are also some common methodological issues in undertaking EJ distributional analysis for which best practice guidance needs to be developed; and research needs to further develop the evidence base in this area.

5.1 Developing Policy and Practice

There are, we consider, four options available for taking the policy and practice of EJ distributional analysis forward in the UK. These are not mutually exclusive as more than one option could be pursued in parallel, but some degree of choice is likely to be needed if a clear way forward is to be developed. More than one option might also need to be pursued in order to address the range of scales at which policies, programmes and projects need to be assessed.

Option 1: Develop EJ distributional analysis within the range of impact assessment methods that are currently being used.
This option recognises the wide range of methods already in place (or in the process of being introduced) and the diversity of EJ concerns across different policy areas, and seeks to introduce and integrate effective EJ distributional analysis into each of these existing methods. **Key components of this strategy would need to include the development of HIA, RIA and Green Book Guidance.**

Health impacts are an important component of EJ, covering a wide range of pollution and risk issues, as well as increasingly the health dimensions of access to greenspace, nutritious food, and heat and energy. **HIA is already well placed to provide distributional analyses for these dimensions of EJ.** Assessing and addressing health inequalities are fundamental within HIA, the processes and method used are strong on distributional analysis and there are already examples of HIAs applied to ‘environmental justice’ topics and which include distributional analysis (if of a rather rudimentary nature). Further development of HIA is needed, however, as evaluation of HIA in practice has shown a number of deficiencies in its use, including the assessment of inequalities. Also whilst the use of HIA is strongly supported by government policy, moving towards a statutory requirement might help ensure that assessments were undertaken on a more consistent basis.

RIA and Green Book Guidance are both very influential across government departments, and have recently applied greater prominence to distributional issues and analysis. Future versions of the guidance could emphasise the need to include distributional analysis of environmental impacts and impacts arising from environmental policies. **Currently the revised RIA and Green Book guidance documents do not highlight, either in sections on distributional analysis or on environmental impacts/sustainable development, the need to apply distributional analysis to environmental concerns rather than to more established areas of economic and social policy where questions of inequality and distribution are more mainstream.** Examples of RIAs we have reviewed in this project have provided only a cursory examination of the distributional aspects of environmental impacts. The current guidance is also arguably orientated too directly around the principles of cost-benefit analysis to provide for the range of approaches that would need to be undertaken for EJ distributional analysis (although the post April 1st revisions do provide for some broadening). Cost-benefit analysis, when adjusted to take account of distributional effects (social and intergenerational) does have some attraction in providing an explicit, measured way in which distributional considerations affect the outcome of analysis. However, it is flawed in many respects when attempting to account in monetary terms for the breadth of environmental and sustainability concerns. The scoring system used in flood appraisal and the multi-criteria approach used in transport analysis provide alternative and arguably less limited techniques for integrating distributional with other appraisal issues.

**Ideally, reform of EIA requirements and guidance would also be sought, particularly because of the statutory status of EIA.** There is a widely recognised need for best practice guidance on the assessment of socio-economic impacts, and this could include substantial material on distributional dimensions. However, the statutory status of EIA may also make it more difficult to broaden the scope of environmental statements, given that primary legislation does not explicitly refer to EIA being a tool to address equity or inequality issues.

Other impact assessment methods also have their place in providing for the distributional analysis of EJ concerns – in particular, Consumer Impact Assessment, Gender Impact Assessment, Well Being Impact Assessment (if this does evolve
more substantially out of HIA) and Equality Impact Assessment – and their use could be further developed and encouraged.

**Option 2: Develop EJ distributional analysis through Strategic Environmental Assessment.**

Strategic Environmental Assessment is at early stage of development, but has within the implementation of EU and UNECE commitments, a greater degree of flexibility to address environmental justice issues than EIA. It applies to a wider range of decision making situations, is seen as part of a wider agenda of sustainable development rather than just environmental management, and draft guidance in the UK has already indicated the relevance of inequality and equity issues to SEA. It already also has a statutory status, which is a strength compared to most of the other options considered, and explicitly factors in the consideration of impacts on other countries. However, the fact that distributional analysis in general does not explicitly figure in SEA legislation, may prove to be a limiting factor in attempts to extend its scope in implementation (although this is seen as less of an obstacle in Scotland compared to England and Wales). The experience to-date of sustainability appraisal, which forms the basis of how SEA is to be implemented in England and Wales, does not provide a strong foundation on which to build an integrated analysis of the interaction between social and environmental impact.

**Option 3: Develop EJ distributional analysis through the use and development of Integrated Impact Assessment methods.**

The Integrated Policy Appraisal method, developed by DETR/DEFRA and piloted across government, provides, in theory, an effective way of addressing the interface between environmental and social concerns. The guidance for IPA emphasises the need for analysis of distributions and inequalities within the two stage process, which is also intended to allow the detailed work of HIA and other methods to be integrated into the overall integrated assessment framework. However, despite the piloting evaluation being broadly positive about the experience of using IPA and recommending a number of ways in which it could be developed and improved (including for distributional analysis) IPA is not backed by government policy as a core methodology, unlike RIA. Recent reforms to RIA have been represented as taking on board the key elements of IPA and the evaluation of its use within the pilot programme.

Integrated Assessment developed for use within the Environment Agency has a similar potential, if greater need for development to address EJ concerns, but currently its status within the Agency is uncertain. Impact Assessment within the Commission of the European Communities also provides a model which could in principle be applied to directly focus on environmental justice issues, even though its origins are to an extent in concerns about over-regulation, and implementation to date.

However, there is much debate about the pros and cons of integrated impact assessment methods and whilst many are positive about about bringing different forms of assessment together others are more critical of the general push towards ever more integration (Lee and Kirkpatrick 2000, Scrase and Sheate, 2002, Bond et al 2001). It is argued by those primarily concerned with environmental concerns that integrated methods lead to compromises and trade offs being made in which the environment normally loses out to economic considerations.
It is also argued that the breadth of integrated appraisals means that each aspect can be addressed only superficially and that the depth of analysis is therefore lost. On the other hand some methods, such as IPA, are explicitly structured into stages which enable more specific and detailed methodologies (such as HIA) to be bought into operation where an initial screening stage within the IPA process decides that this is appropriate.

**Option 4: Develop EJ distributional analysis through a specific tool of Environmental Equity Appraisal**

There is no existing model for environmental equity appraisal that could be applied across the range of EJ concerns identified by FoE and applied to a diversity of decision-making situations. The US models of environmental equity appraisal used by the EPA and other federal bodies have some strengths which could be adapted to the UK context (particularly the depth of guidance on analysing community characteristics and the emphasis on participation), but are narrowly defined in social terms and intended for use in relation to the location of industrial and waste facilities or transport infrastructure.

Developing a specific method of environmental equity appraisal would have some advantages. It would highlight the importance and need for distributional impacts to be assessed for environmental concerns (rather than just the economic, social or health concerns that have dominated inequality debates to date). It would also allow specific and appropriate methodologies to be developed and applied which are directly suited to the analysis of environmental justice concerns (recognising the complexities involved – see below).

However, given the number of impact assessment methodologies that already exist and the strongly institutionalised position that some of these already have, it is doubtful whether or not an entirely new methodology would achieve sufficient status to become routinely or meaningfully used.

Deciding which of these four options, or combination of options, should be pursued is a strategic and political judgement, which needs to take account of the following:

- The speed with which EJ impact assessment might be developed
- The degree to which institutional and political obstacles might stand in the way
- The impact which can be achieved on appraisal practices across the wide range of policy areas relevant to environmental justice
- The impact which can be achieved on decision-making across the wide range of policy areas relevant to environmental justice
- Whether the option enables the method to be legally embedded
- The extent to which open, participatory processes can be achieved
- The stage(s) in decision-making processes at which EJ impact assessment can be introduced
- The level of scale(s) at which EJ impact assessment can be developed
- The extent to which different options can increase external debate of issues
5.2 Addressing Methodological Issues

Distributional analysis is recognised as being, difficult, complex and challenging, particularly when more in-depth quantitative methods are applied – rather than the more qualitative, participatory, check list type approaches that are used in some impact assessment methodologies. These methodological complexities include:

- Choice of population groups or social variables within the analysis
- Choice of comparison populations when inequities are being assessed
- Lack of good quality or access to data
- Uncertainties in cause-effect relationships
- The role of confounding factors
- The spatial scale at which to undertake analyses
- The choice of statistical methods
- Assessing what is inequitable or unfair

Each of these complexities have been recognised within environmental justice research, and are discussed in detail in the literature (Liu 2000, Mitchell and Walker 2003, Mitchell and Walker, forthcoming). As they have the potential to make the results of distributional analysis both highly variable and contested, there is a need for detailed best practice guidance to be developed by an expert group drawn from across the different disciplines and policy areas within an interest in EJ distributional analysis. This could provide generic advice to those seeking to include EJ distributional analysis within any impact assessment method.

Particularly important and challenging for this guidance would be the inclusion of international and intergenerational distributional analysis, which has to-date received very little attention within the impact assessment literature.

5.3 Making distributional analysis meaningful

In section 3.3.4, the question ‘what difference does distributional analysis make’ was addressed. Whilst some examples of legislative triggers and decision making criteria that integrated equity considerations into their operation were identified, most of the tools relied upon checklist approaches, which had no explicit way of factoring equity into decision-making processes. Whilst it can be argued that it is appropriate that the range of considerations that are assessed in impact assessment are flexibly balanced on a case-by-case basis, there is also a need, from an environmental justice perspective, to ensure that distributional considerations are given some status within decision-making.

More fundamentally, following distributional analysis there is always a need to determine when an inequality in impacts or access becomes unacceptable, inequitable or unjust, and therefore in need of a policy response. The criteria applied in the US of ‘disproportionately high’ impacts is poorly defined, but provides a starting point for determining when an environmental injustice exists. Whilst there is therefore undoubtedly a need to develop the practice of distributional analysis, there is also a need to develop the interpretation of this analysis and its integration into decision-making processes and practices.
5.4 Prioritising Further Research

This project has been able to develop a wide ranging overview of distributional analysis within impact assessment. There are a number of ways in which further research could be developed. These include:

- evaluation of the practice of distributional analysis with those methods where it should currently be being applied e.g. RIA
- more thorough review of the policy, practice and experience of environmental justice distributional analysis in the US
- analysis of how HIA is being used in the interface between environment and health concerns, including in assessing the impact of environmental permits and project proposals
- more detailed analysis of the different ways in which the outcomes of distribution analysis could be factored into established tools such as cost-benefit analysis to overcome current limitations.
- evaluation of distributional analysis with the practice of strategic environmental assessment, potentially across different European countries
Appendix 1: References (for Main Report)


Etheridge Z (2003) IPA Pilot Assessment, In House Policy Consultancy for ODPM, DoT and DEFRA


## Appendix 2: Impact Assessment Methods and Distributional Analysis

### ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

<table>
<thead>
<tr>
<th>Institution/Govn Department:</th>
<th>Widely applied internationally, with current UK practice dictated by EU directives and derived national legislation.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Status:</strong></td>
<td>A widely used and well established procedure for determining the potential environmental effects of a development proposal, and identifying mitigation options.</td>
</tr>
<tr>
<td>Spatial Scale:</td>
<td>Variable, but is applicable to development projects, rather than policies or plans, hence is usually limited in scale to the extent of the project.</td>
</tr>
</tbody>
</table>

Over 100 countries now have a formal EIA system, and many NGOs (e.g. UNEP, World Bank) also have formal EIA procedures used for assessment of development aid.

The UK has a long history of environmental assessments via development control and the planning process, but more recently the procedure has been formalised through legislation, including:

- EC directive 85/837/EEC as amended by 97/11/EC The assessment of effects of certain public and private projects on the environment
- Town and Country (EIA) regulations 1999

These are the main EIA drivers in the UK, but EIA is also required under a wide range of related legislation and policy guidance (e.g. 1994 Habitats directive, 1979 Birds Directive, 1991 Water Resources Act, 2000 Pollution Prevention and Control Act, PPG 9 on Nature Conservation, PPG 13 on Transport, PPG 23 on Planning and Pollution Control, PPG 25 on Development and flood risk).

**General Description**

EIA was first formally established in the USA, by the 1969 National Environmental Policy Act. Since then many countries and institutions have adopted an EIA process, including the UK, although environmental assessment has been a feature, albeit more ad hoc, of development planning for at least a century (e.g. via public enquiries).

The EIA process varies in detail between institutions, but the basic process is broadly similar. The UK is typical, with the process comprising screening (is an EIA necessary?); scoping (what are the potentially significant effects?); assessment; mitigation; reporting and reviewing; and final decision making by the competent authority. Baseline evaluation and monitoring, together with stakeholder consultation are important features of EIA, that occur throughout much of the process.

There are numerous basic approaches to assessment in EIA, and hundreds of more specific assessment tools, hence EIA is usually conducted by a project manager who manages the process, and deploys discipline based experts as appropriate. General guidance on EIA in the UK is provided by government in DETR circular 02/99.

**Specific Requirement/Method for Distributional Analysis**
For a proposed Schedule 1 or 2 development (developments for which formal EIA is mandatory), the TCPA (EIA) 1999 regulations requires a description of:

- Direct and indirect effects
- Cumulative and secondary effects
- Effect duration (short, medium, long term)
- Whether effects are permanent or temporary
- Whether effects are positive or negative.

The identification and interpretation of these effects is a task for the EIA team, who are advised by government to seek the advice of relevant stakeholders, including statutory consultees and the local population (although they are not required to do so).

Under the EIA regulations (Schedule 4, Part 1(3)), the EIA should describe “the aspect of the environment likely to be significantly affected by the development, including, in particular, population, fauna, flora, soil, water, air, climatic factors, material assets, including architectural and archaeological heritage, landscape, and the inter-relationship between the above factors”.

The consideration of population is primarily an assessment of the population change that will be brought about by the development and hence any subsequent environmental impact arising from the induced population change. However, the requirement to consider inter-relationships between receptors implies that impacts on people, of environmental changes, are also relevant, should they be significant. If this proves to be the case, then further assessment (e.g. risk assessment, SIA, HIA) may be required.

An EIA should address sensitive receptors, and these could include particular population groups. For example, when assessing the significance of extra traffic induced by a development, an EIA may consider the effect of the additional traffic on sensitive sites in the area (e.g. noise effect on a local hospital; accident or air quality impact on a local school). The decision to include such assessments in an EIA is a task for the EIA team, and the adequacy of the assessment is judged by the competent authority.

There are, however, no specific requirements within EIA regulations (or associated guidance) that call for an assessment of the social distribution of environmental effects arising from a development. EIA practitioners recognise that the environmental effects of developments often have social outcomes, but the assessment of these effects remain rare in practice, and the social distribution of environmental effects of development has not featured in UK EIAs to date. Overseas, the practice is similarly limited, although there are examples, particularly from the US, in which particular social or cultural groups are addressed in EIA (e.g. emission to water of toxic substances that accumulate in fish, and which can be especially harmful to the health of groups such as the Inuit, who have a particularly high dietary intake of fish).

An exceptional requirement for spatial analysis does occur under UK EIA regulations. The Secretary of State has responsibility, under the Espoo convention (UNECE Convention on EIA in a Transboundary Context), to ensure that impacts of a UK development on other countries are considered in the EIA process (and vice versa with other EC states and convention signatories). In practice, such transboundary considerations in EIA are rare.

**Evaluation of Use**

There is a body of literature on the effectiveness of EIA (see Sadler 1996 for the most recent and substantive review). However, as assessment of the social distribution of environmental effects is not generally a part of EIA there is no evaluation of the effectiveness of such assessment.

EIA is currently weak in terms of its ability to address cumulative effects, which are often considered significant in the environmental justice literature (e.g. creation of ‘hazard havens’ where new developments are easier to implement if an existing development of a similar nature already exists at the site). In principle, an effective EIA considers the impacts of multiple developments and/or development proposals, in part through establishment of the environmental baselines. In practice, this tends to be a difficult task, and it one motivation behind the development of strategic environmental assessment (SEA).
The treatment of socio-economic aspects has been highlighted as a general weakness of the implementation of EIA in the UK (Glasson and Heaney, 1993) with a lack of best practice guidance and cursory treatment in many environmental statements. In terms of any distributional element, an analysis of 110 environmental statements submitted 1993-98 found that none of these even mentioned the potential distributional effects of the project involved (Chadwich, 2002)

Whilst the social distribution of environmental effects is not generally addressed in EIA, EIA is becoming more closely linked to SEA, and to other fields such as health impact assessment (HIA), where the demand for distributional analysis is stronger.

**Population Groups Covered (social, spatial, generational)**

The effects on people are a significant concern to planning authorities and regulators. However, there is no requirement under EIA regulations to assess these, although if such effects are considered potentially significant, the competent authority (often the local planning authority), may request a developer to conduct separate Social Impact, Health Impact or Risk Assessments, with these reports being submitted together with the formal EIA report.

With respect to people, the DETR (2000) guide to EIA procedures requires an environmental statement (the output of an EIA) to include information on:

- The project, including the number of people employed and where they will come from;
- The site and its environment, including the number of people and their proximity; and
- Potential demographic in the areas, and any consequent environmental effects (e.g. emissions, noise, visual intrusion) arising from the population change.

Thus, whilst an EIA may require detailed description of local area demographics (e.g. age distribution, socio-economic status) this information is required to assess the effect of the development on the environment, via changing demographics (e.g. inducing additional traffic), rather than for use in considering the social distribution of resultant environmental effects.

DETR (1999) EIA guidance notes that “*the relationship between a proposed development and its location is a crucial consideration*”. In deciding on whether an EIA is necessary, and in conducting effects assessment, the regulations require that certain characteristics of location must be considered. These characteristics comprise two types. Firstly, environmentally sensitive locations must be considered. These are defined as those with special nature conservation value (e.g. a SSSI) or with other protected status (AONB, national park etc). Secondly, development is more likely to require an EIA if it is particularly complex or has potentially hazardous effects. This could include irreversible or cumulative effects that are hazardous to humans or nature. However, in both cases the socio-demographic characteristics are not a factor considered important in terms of defining the affected site as sensitive, and hence deserving of an EIA.

**Website/reference:**

- Town and Country Planning (EIA) regulations 1999
- DETR circular 02/99 (EIA)
- EU EIA studies, reports and guidance [www.europa.eu/int](http://www.europa.eu/int)
**Institution/Govn Department:** European Commission directive implemented by national regulation.

**Status:**
SEA will soon be a legal requirement in the UK. European Directive 2001/42/EC on strategic environmental assessment was agreed in July 2001, and must be implemented in all member states by 21 July 2004.

Draft regulations on how to implement the directive were out for consultation up to March 2004 in Scotland and May 2004 in England.

A formal list of policies, plans and programmes that are to be subject to SEA has not been published for the UK, although the directive indicates 11 activity areas for which SEA should be considered.

ODPM has published guidance on SEA. This applies primarily to land use plans, but in principle can be used for other plans and programmes.

Guidance explaining how SEA and sustainability appraisal can be integrated is forthcoming from ODPM.

The UNECE SEA protocol is a development of the Espoo convention on transboundary impact in EIA, and has more explicit links to the Aarhus convention (access to information, public participation, and environmental justice), through more explicit reference to the opportunity for public participation in the SEA process. The protocol is broadly similar and compatible to the EC directive, but requires a more explicit treatment of health and transboundary effects. The protocol was adopted by 35 countries in May 2003, and will take effect once ratified by 16 countries.

**Spatial Scale:**
SEA ranges in spatial scale from local/regional to international. This range in scale is related to the nature of SEA, in that plans, programmes and policies are addressed. Plans are commonly implemented at the smaller spatial scale, whilst policies may be national or international in scope.

**General Description**
The first SEA system was set up in the US in 1969. Today, around 25 countries have some form of SEA system, including the UK. The aim of SEA is to protect the environment and contribute to sustainability. There are several key differences between SEA and EIA but the most important are that SEA:

- is designed to improve strategic actions (policies, programmes or plans), not individual projects, and requires assessment very early in the decision process;
- focuses on environmental sustainability constraints, thresholds and limits
- gives more effective consideration to cumulative and indirect impacts;
- has a more significant role to play in promoting sustainability.

The key steps in SEA are to:

1. Identify the objectives of the strategic action – this includes identification of environmental and sustainability issues, and associated targets and indicators;
2. Describe the environmental baseline and the problem areas;
3. Identify links to other relevant strategic actions;
4. Identify alternative ways to achieve the objective and solve identified problems;
5. Prepare a scoping report describing the above, and consult widely
6. Predict and evaluate the impact of alternatives, including consideration of mitigation options;
7. Prepare an SEA report and consult widely on preferred option;
8. Implement and monitor the environmental and sustainability impacts of the strategic action.

SEA practice in the UK, and Europe more widely, is evolving rapidly and considerable guidance on best practice and case studies can be expected over the next five years or more, as practitioners seek to implement the requirements of the EC directive. Ratification of the UNECE protocol may also create some additional demands. Note, however, that in 1992 the UK government recommend that local development plans be subject to environmental appraisal. DoE guidance (DoE 1993) recommended a three stage process:

1. Identify environmental components potentially affected by the development plan;
2. Ensure the plan is in accordance with governmental planning and environmental advice;
3. Determine whether the plans objectives/policies are internally consistent, and assess policy effects on the environment using a policy impact matrix.

In 1999, this guidance was updated to reflect appraisal of regional development plans (now regional spatial strategies) (DETR 1999a). This sustainability appraisal (SA) suggested that strategic objectives were identified, and then sustainability indicators developed to assess options. The 1993 guidance on development plans was also revised (DETR 1999b) so that appraisal could encompass social and economic issues. Most UK local authorities have now carried out a (albeit rather rapid) SA of their local development plan. Thus SEA in the UK existed prior to the directive, although the depth of analysis across the social, economic and environmental domains was much less thorough than that required by the SEA directive for consideration of environmental issues.

The UK systems of SA consider social, economic and environmental issues for local development plans and regional spatial frameworks, although in a relatively shallow manner when compared to the SEA directives treatment of the environment. In contrast the SEA directive is focused on the environment, and requires a thorough treatment of issues, yet this is done with a view to promoting sustainable development, hence SEA should also include some degree of assessment of social and economic issues. This treatment of social and economic issues required by the SEA directive is open to interpretation, and the forthcoming ODPM guidance on SEA and SA integration is designed to clarify the issues, with the aim of producing a single, more streamlined system.

### Specific Requirement/Method for Distributional Analysis

There is no specific requirement for environmental equity appraisal under either the SEA directive or UNECE SEA protocol (see population groups section below for further details). This means that there are no specific methodologies recommended for distributional analysis. Note, however, that the issue of SEA content and associated methodology is specifically addressed in the SEA protocol, which requires a periodic review (Article 14(4); Article 19).

The SEA protocol requires identification of sensitivity of the environment – this includes issues such as nature conservation areas and other protected areas (as in the EIA directive), but also makes provision for sensitive areas to be designated according to other requirements – these may be buildings occupied by particularly sensitive groups (schools, hospitals), or people already subject to cumulative impacts. Critically, the SEA directive and the SEA protocol permit a much greater role for the public in expressing which environmental sustainability aspects are most important. This requirement for additional participation means that environmental equity issues can be considered more formally within an SEA, if the consulted population deem this to be important.

Equity appraisal is already a feature of SEA practice, and environmental equity appraisal looks likely to follow as a logical extension of this practice. This is probably because the public affected by a proposal are being given a greater opportunity by the SEA instruments to...
comment upon a proposed strategic developments, and influence the selection of strategic options and mitigation measures, hence decision makers are more interested in identifying ‘winners and losers’. In addition, policy makers increasingly recognise the links between social and environmental issues, and the value in addressing social issues in environmental appraisal.

The analysis of environmental equity in the SEA process is not prescribed by the SEA instruments, but its inclusion is facilitated by them. Through the process of scoping of themes and objectives, and selecting indicators and targets, environmental equity may be included in the SEA. For example, the draft ODPM guidance on SEA of development plans (ODPM 2003) has a social inclusiveness theme, under which a possible SEA objective is to redress inequalities related to age, gender, disability, race, faith and deprivation, regions and localities. These inequalities can relate to a range of issues related to land use, including, presumably, both environmental and other effects.

The draft ODPM (2002) guidance on SEA also includes a SEA quality assurance checklist. SEAs that consider equity issues are identified as preferable, although the checklist is advisory, not prescriptive or mandatory. The advice suggests that the purpose of equity appraisal in SEA is to ensure that strategic actions help to redress inequalities (and by extension environmental inequalities as the advice relates to the SEA directive), or at least not exacerbate current inequalities.

Further examples of environmental equity appraisal are evident from Scotland and Ireland. Interim planning advice on implementation of the SEA directive in Scotland, prepared on behalf of the Scottish Executive, lists environmental equity as one of 11 sustainability themes used for the evaluation of the Midlothian structure plan. In this example, environmental equity criteria include pedestrian access to greenbelt land, and understanding of the local environment.

In Ireland environmental equity is also specifically included in the SEA of county development plans (2003-2009) for County Kerry and County Offaly. In both cases, environmental equity is one of seven SEA appraisal themes, and equity issues specifically relate to access to, and understanding of local environmental resources.

**Evaluation of Use**

To date, there are few examples of how environmental equity is addressed in UK SEA. This is in part, due to the relative youth of UK SEA/SA, but perhaps also to the apparent contradictions that can occur between the four UK SD objectives – The most obvious contradiction occurs between effective protection of the environment and maintenance of high and stable levels of economic growth, but it is also not always clear in government policy or guidance, how protection of the environmental is to be reconciled with social progress that meet the needs of everyone. The extent to which these objectives are compatible remains to be tested, and the application of SEA, in which wider social and economic issues are included will be a significant test.

**Population Groups Covered (social, spatial, generational)**

The EU SEA directive requires the assessment to address risks to human health (a development over the EIA directive), together with a description of the geographical area and size of the population affected (Annex II, 2), but there is no requirement to consider the distribution of effects by population sub-group.

Under the UNECE SEA protocol, with its greater emphasis on participation and health, the ‘public’ means “one or more natural or legal persons and, in accordance with national legislation or practice, their associations, organisation or groups. This provides greater scope than the SEA directive, for members of the public to request that the interests of particular population sub groups are addressed within an SEA. For example, Article 8 seeks to ensure that all members of the public (which could be defined population groups or NGOs) concerned
with the strategic option, are identified sufficiently early in the SEA process, so that they have an opportunity to participate in the process in a timely fashion (i.e. before any strategic options are precluded from assessment).

Neither the SEA directive or UNECE protocol make specific provision for equity assessment. Rather, these instruments provide the opportunity for an affected population sub-group to seek redress, on the grounds that they are subject to a significant impact (e.g. health burden). The instruments indicate that the significance of such a burden would be assessed, not relative to the burden experienced by other public groups, but with respect to normative measures (e.g. current standards or guidelines indicating acceptable environmental or health effects).

The one aspect of the FoE checklist that is more specifically covered as part of the SEA process is *people in other countries*. This is primarily because of the transboundary implications of policies, plans and programmes in other European countries that are downplayed in the UK due to our island status. If significant transboundary impacts are possible then the SEA assessors have to inform the Secretary of State who then liaises with the impact country ensuring that the UK SEA is integrated within the other country’s SEA process.

**Website/reference:**

ODPM (2002) Draft guidance on the SEA directive
www.planning.odpm.gov.uk/consult/SEA

www.planning.odpm.gov.uk

Department of Transport guidance on SEA of transport plans www.webtag.org.uk


Kerry County Council (2003) SEA of County Kerry Development Plan. www.kerrycoco.ie/planning/draftplan03.asp

### Social Impact Assessment

**Institution/Govn Department:** none specifically (ODPM within context of EIA/SEA)

**Status:** The method is well developed but it has no formal status in terms of requirements or policy statements which specifically advocate its use. Can be included within the obligations for EIA and SEA as a sub-component.

**Spatial Scale:** From local to international, primarily used for projects but also applied to plans, programmes and policies.

### General Description

SIA has been defined as *the systematic analysis, in advance, of the likely impacts a proposed action will have on the life of individuals and communities* (Burdge 2003)

The US guide to SIA which is widely cited defines SIA as including *‘all social and cultural consequences to human populations of any public or private actions that alter the ways in which people live, work, play, relate to one another, organize to meet their needs and generally cope as members of society’.*

It developed in parallel with EIA in the US, with early high profile studies undertaken for example of the Trans Alaskan pipeline. It is more embedded in policy and practice in the US and Canada and used in developing countries, for example, to assess the social impacts of large dam projects. It has, though, been described as the poor cousin of EIA, used much less frequently and often subsumed within the requirement of many EIA processes to also consider ‘socio-economic impacts’ (as under EU/UK legislation).

The models and processes advocated for undertaking an SIA are very similar to EIA, but with an even stronger need to build in public participation and involve local communities throughout.

Health Impact Assessment and Gender Impact Assessment can be seen as focused subcomponents of SIA.

### Specific Requirement/Method for Distributional Analysis

SIA is concerned with assessing (usually predictively) a wide range of social impacts and changes (e.g. changes in population levels and characteristics, community and institutional structures, community networks and relations, values and perceptions) encompassing directly and indirectly a range of EJ issues.

All of the guidelines include equity as part of the principles and/or goals of SIA. International Association for Impact Assessment principles of SIA state that *‘The goal of impact assessment is to bring about a more ecologically, socio-culturally and economically sustainable and equitable environment’.* The first Principle of SIA practice is stated as *‘Equity considerations should be a fundamental element of impact assessment and of development planning’.* They also emphasise the need to assess and address distributional effects *‘The improvement of social wellbeing of the wider community should be explicitly recognized as an objective of planned interventions, and as such should be an indicator considered by any form of assessment. However, awareness of the differential distribution of impacts among different groups in society, and particularly the impact burden experienced by vulnerable groups in the community should always be of prime concern’.*

The US Guidelines on SIA in their 1994 version have a substantial section on the analysis of *‘Impact Equity’* emphasising that the SIA should clearly identify who will win or who will lose and focus on vulnerability and under-represented groups. The 2003 update replaces this with a stronger and direct inclusion of environmental justice. Principle 5 is to *‘ensure that any environmental justice issues are fully described and analyzed’*. Guideline 5a is to *‘ensure that research methods, data and analysis consider underrepresented and vulnerable stakeholders and populations’* and within this it is stated that *‘in the course of the SIA the practitioner should take care to identify these special populations, describe and...*
measure their social and cultural characteristics and incorporate this information into the SIA and the baseline data sets.

**Evaluation of Use**

There is a substantial literature on SIA and considerable evaluation of its use. It has, though, been variously described as the ‘orphan’, ‘poor relation’ or ‘neglected cousin’ of impact assessment principally because of its low status in policy and practice when compared to EIA. Practitioners emphasise its utility, importance and effectiveness and point to specific examples of the benefits of undertaking SIA and particularly of involving the local community in this process (e.g. Burgd 2003b, Lockie 2001). The problems involved in producing adequate predictive analysis of social change and in drawing on both quantitative and qualitative information though are also widely recognised.

An evaluation of the treatment of social and economic impacts within UK environmental impact assessment (EIA) practice did not identify any specific use of SIA as part of the production of environmental statements and concluded generally that coverage tends to be narrowly focused on a small number of—primarily beneficial economic—impact types (Chadwick, 2002) (see EIA table for further discussion).

Burningham (1995) comments that although SIA ostensibly deals with the social effects of projects there is a tendency for assessments to avoid any detailed consideration of the ways in which people are affected. Instead there is an emphasis upon technical and economic considerations. When assessments do attempt to incorporate the perceptions of local people they typically do so through some form of attitude research. However if language is viewed as a form of social action rather than as a detached commentary on reality there are radical implications for the methods traditionally used in SIA to gauge people’s views and attitudes.

A Department of Health report on a methodological seminar, noted that SIA within EIA, is usually restricted to aspects of demography, e.g. what effects will the development have on the population profile of the area and what additional services will be required to meet the needs of that new population. The developer is not expected to comment explicitly in the Environmental Statement on how healthy (or not) their proposed development will be. However, the quality (and sustainability) of the physical and social environment is fundamental to human health, therefore, by default, environmental and social impact assessment is already a form of health impact assessment and could be built on in order to extend the scope for HIA within the UK, as is the case in Australia and New Zealand (British Medical Association, 1998).

Any evaluation specifically focusing on the distributional, equity or justice elements of SIA has proved difficult to find.

**Population Groups Covered (social, spatial, generational)**

Any population sub groups, with a particular emphasis on vulnerable and minority populations. Intergenerational issues may be incorporated because of the predictive character of SIA which sometimes uses medium to long time scales.

**Website/reference:**

The 2003 version does not appear to be available on the web but is reproduced in *Impact Assessment and Project Appraisal*, vol 21, no 3, pp 231-250

http://www.iaia.org/Members/Publications/Guidelines_Principles/SP2.pdf


DOH-HIA: report of a methodological seminar
**HEALTH IMPACT ASSESSMENT**

Institution/Govn Department: Department of Health, Health Development Agency, World Health Organization, regional and local health authorities and others

**Status:** Fairly well developed method. Strongly advised to be used but no statutory obligations in UK. Speech by Tessa Jowell 1998 ‘the Government is committed to carrying out Health Impact Assessments on relevant policies - particularly those dealing with inequalities - across all Departments’. White Paper ‘Our Healthier Nation’ 1999 commits government to making HIA ‘part of routine practice of policy making in government’ . Relevance to LSPs is highlighted in various documents. Welsh Assembly commitment to using HIA is particularly strong (see 1999 document).

Article 152 of EU Amsterdam Treaty and European Commissions Health Strategy emphasise need to assess impacts of policies on health but no obligations in force.

**Spatial Scale:** Any scale, but largely applied to-date at local level in the UK (a 2002 review identified 103 local level HIAs in UK). Featuring more at national level following commitment in White Paper to apply more broadly across government.

**General Description**

An assessment of the health effects, positive and negative, of a project, programme or policy. Has 20 year history in context of LDC programmes and in other countries but only emerged as widely recognised tool in mid-1990s in UK alongside development of EIA. Many toolkits and guidelines exist but there is no legal definition of what constitutes an adequate HIA. It can be used both by itself or integrated with other forms of assessment (the HIA Gateway lists IIA, EIA, SIA, SEA). Links with sustainable development and resource management are explicitly recognised e.g. in WHO guidance. In Health Development Agency guidance carrying out an HIA is seen as relevant at a local level to:

- Neighbourhood Renewal
- Community Strategies
- Local and Regional Transport and Land Use Plans
- Health Improvement and Modernisation Plans (HIMPs)
- Best Value approach in Local Government
- Integrated Pollution Prevention Control (IPPC) Regulations.
- Equity audits
- Regeneration initiatives
- New power for councils to promote the wellbeing of communities.

Six standard steps mirror EIA: screening, scoping, analysing evidence, developing recommendations to mitigate impacts, engaging with decision makers, monitoring and evaluation. HIAs can be carried out at different levels of intensity (comprehensive, rapid appraisal, brief audit) and using qualitative evidence based on stakeholder views, as well as quantitative predictive and epidemiological modelling.

**Specific Requirement/Method for Distributional Analysis**

There is no required specification for HIAs but all of the adopted guidelines/models indicate the need to examine the distribution of impacts on health amongst different social groups. For example:

- the HIA Gateway of the Health Development Agency includes equity as one of the fundamental principles underlying HIA (along with democracy, sustainable development, science and robust practice and a holistic approach to health). Its list of why HIA should be
undertaken has two related to inequalities under a ‘wider model’ of health determinants.

- the Health Development Agency (HDA) Guide to HIA defines HIA as ‘a developing process that uses a range of methods and approaches to help identify and consider the potential – or actual – health and equity impacts of a proposal on a given population’. It also states that ‘Health impact assessment can help organisations ensure that they make an active contribution to improving health and reducing inequalities – or, at the very least, that their proposals do not inadvertently damage health or reinforce inequalities’.

A further HDA document clarifying the relationship between HIA, IIA and Health Needs Assessment and states that ‘all three approaches are designed to take account of inequalities to help improve health and reduce health inequalities: HIA and IIA by viewing how proposals may affect the most vulnerable groups in the population compared with how they may affect the least vulnerable’.

The HDA Guidance on Addressing Inequalities through HIA provides a more detailed consideration of why and how inequality should feature centrally within HIAs. It states for example that ‘Addressed properly, HIA can provide a valuable tool for stimulating the development of socially just policies and proposals that robustly and transparently consider the ways in which ‘winners’ and ‘losers’ will be created, and that take steps to manage this’. A range of challenges in undertaking analyses of inequality are recognised including setting boundaries to the HIA, involving communities and identifying those affected. [N.B. This is a key resource]

The Acheson Report (1998) on health inequalities had as its first recommendation: ‘We recommend that as part of health impact assessment, all policies likely to have a direct or indirect effect on health should be evaluated in terms of their impact on health inequalities ..’

Merseyside Guidelines for HIA widely cited and used in the UK state that ‘The aims of public policy dictate that HIA should openly declare its values - and that social, material and environmental equity should feature strongly among them. This is because public policy impacts disproportionately on the already disadvantaged.’

Welsh Assembly document on developing HIA (2000) is particularly good at focusing on the methods to be used and the problems involved in producing quantitative results and includes some discussion of climate change and health within an HIA.

DEFRA Guidance for local authorities as to what to expect from consultations with primary care trusts on IPPC applications provides a specific potential application of HIA. This guidance states that PCTs will be expected:

‘to advise and inform the regulators on local health sensitivities: i.e. whether the health, age etc profile of the population living around a given installation might sufficiently differ from the ‘norm’ to possibly warrant a different regulatory decision on what constitutes the Best Available Techniques (BAT) under PPC or increased monitoring, and, exceptionally, whether an application for a permit might be refused’

Guidance to Health Authorities on IPPC advised that whilst HIA may not be possible to be used within the timescales for IPPC consultation in some circumstances HIA may be appropriate to develop a response and noted that some regions were using a rapid variant of HIA for this purpose.

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<th>Evaluation of Use</th>
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<td>There is some evaluation of HIA in practice, but any evaluation specifically on the inclusion of distributional elements is relatively thin on the ground. The key evaluative research identified is discussion below.</td>
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<th>Population Groups Covered (social, spatial, generational)</th>
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<tr>
<td>Distributional analysis within HIA can be applied to any identified groups but is usually related to gender, age, ethnicity and disadvantaged/vulnerable groups.</td>
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Evaluation of Use of HIA

Substantial evaluation, particularly any focused on distributional elements of HIA appears to be thin on the ground. The WHO website has a section on ‘evidence that HIA works’ uses three examples, all taken from the UK, which in fact provide very limited evidence that HIA is being applied effectively. An evaluation of 20 HIAs for the MRC found no consistent methodologies being used and considerable scope for bias in results (McIntyre and Petticrew 1999). A ‘review of reviews’ on HIA for the HDA found that there are wide gaps in the evidence base and few substantial reviews of HIA effectiveness (Quigley and Taylor 2002). This also commented on the problems involved in establishing the connection between an HIA and improvements in public health or inequalities and recommended that practitioners be encouraged to consider inequalities within HIA (the implication being that they currently are not); that good practice guidance be produced on HIA and inequalities; and that the role of health equity audits within HIAs be further considered.

A Europe wide study of the status of HIA in policy making (Welsh Assembly 2003) found that several European governments are active in the field of health impact assessment and some have allocated resources to support its development and use. Recommended that a proactive approach by governments is needed to identify opportunities to use health impact assessment. This will expose health impact assessment to the realities of policymaking and provide real opportunities to test out its usefulness.

Parry and Scully (2003) specifically focus on the consideration of health inequalities within HIAs in the UK. They argue that whilst the importance of HIA for addressing health inequalities has been highlighted in key government papers and reports (such as the Acheson Report) in practice not all HIAs undertaken in the UK have followed the models or guidance on distributional analysis and ‘few have considered the effects of public policies on health inequalities in a robust or reliable manner’. This is in part due to methodological and conceptual difficulties involved in:

- defining which population sub groups to include
- the stage at which population sub groups are defined (either before or during the assessment)
- precisely defining sub groups (e.g. what is low income, vulnerable, ethnicity)
- linking health impacts to specific sub groups

### Key Websites/references:

- **HIA Gateway** [http://www.hiagateway.org.uk/index.htm](http://www.hiagateway.org.uk/index.htm)
- **HDA ‘Addressing Health Inequalities through HIA’** [http://www.hiagateway.org.uk/Resources/other_materials_and_information/Addressing_Inequalities_HIA.pdf](http://www.hiagateway.org.uk/Resources/other_materials_and_information/Addressing_Inequalities_HIA.pdf)
- **WHO Guide and Resources:** [http://www.who.int/hia/en/](http://www.who.int/hia/en/)

- **DEFRA Guidance on IPPC Consultation with PCTs** [http://www.dh.gov.uk/assetRoot/04/07/40/35/04074035.pdf](http://www.dh.gov.uk/assetRoot/04/07/40/35/04074035.pdf) [

  - [http://www.dh.gov.uk/PolicyAndGuidance/HealthAndSocialCareTopics/IPPC/fs/en](http://www.dh.gov.uk/PolicyAndGuidance/HealthAndSocialCareTopics/IPPC/fs/en)
Because of these difficulties they recognise that the argument could be made that HIAs cannot currently deal with inequalities with any real confidence. However, they contend that standard profiles for inequality assessment could be developed (e.g. specifying ‘must have’ subgroups within all assessments which they suggest would be sex, age, ethnicity and socioeconomic status) and that the ‘inclusion or exclusion of other relevant sub-groups be determined by clear stated and transparent criteria’. Overall they consider assessment of inequalities within HIA to be too important to be omitted from HIAs and particularly significant in highlighting the significance of inequality issues to decision-makers particularly at a local level.

The problems involving in differentiating health status and impacts across different social groups are also highlighted on the HDA web site in a discussion of health inequalities. The historic collection and analysis of health data in relation to occupational classification means that other areas of distributional analysis are less developed:

‘Because most health data are (or were) collected using a classification system based on occupation, other dimensions of social difference, such as ethnicity, gender, disability, place, age and geography, are underdeveloped. Consequently, the relationship between the different dimensions of inequality, and the way they interact with each other to produce health effects, is hardly found in the existing evidence’

(http://www.hda-online.org.uk/html/research/inequalities.html)


**Examples of HIAs Relevant to Environment Justice**

1. Health inequalities in an HIA for proposal to burn tyres in a Cement Kiln to replace coal in Rugby


Section 24 considers impact on health inequalities and is reproduced below. The assessment is made qualitatively and a number of different distributional effects are considered including distant populations.

**Section 24**

‘In any change there are nearly always gainers and losers.

If tyre burning is permitted the gainers are the general UK population because tyres which might harmfully impact on their health are removed from the environment and perhaps the world population because the CO2 load on the atmosphere is reduced. These gains are small but effect a large number of people. The Rugby Cement Company is also a gainer because of increased profitability of its Rugby Cement plant.

If anyone loses it is the population of Rugby and those living in its immediate environment. Undoubtedly some of them will be distressed by the knowledge that tyre burning is taking
place but it is not clear that emissions will become more harmful or cause negative health impacts. Within Rugby plume grounding is not concentrated on one area so it appears that no group is especially disadvantaged. If there were a deterioration in air quality those with respiratory disease would be most affected.

Inequalities of health impact are usually dealt with by transferring benefit from gainers to losers. Such transfer might involve Rugby Cement investing in even higher levels of abatement technology to ensure that emissions from the plant were at an even lower level than present. For example they might offer to meet the emission levels, which will be required by the European Waste Directive before the date on which those levels become a legal requirement. Alternatively they may consider other ways in which gain could be shared with the community.

2. Health Impact Assessment for the Draft London noise strategy


This includes questions about inequalities and subgroups all the way through (children, those with mental health problems, deprived ….) and makes recommendations related to gathering better data on exposure to noise for different places/communities as reproduced below

Highlight, address – and encourage other agencies to address – the differential effects of ambient noise on different communities in London.

i. Place a high priority on the policies and proposals to reduce noise caused by road traffic and identify resources to enable agencies to deliver these policies.

ii. In anticipating noise-related problems associated with London's planned development, do not overlook the noise-related problems that affect the current population of Londoners, particularly those in deprived areas and members of vulnerable groups, such as families in temporary accommodation and refugees and asylum seekers. In particular, draw on the noise audits by boroughs (see Recommendation 1) to collect useful baseline information on differential effects of ambient noise on different sections of London's population, broken down by dimensions such as age, sex, ethnicity, socio-economic status, level of deprivation, type of housing.

iii. Explore ways of influencing planning frameworks so as to make it unacceptable for buildings which are designated as social housing in mixed tenure developments to be sited near to roads so that they act as noise insulation and shield houses for sale on the open market from traffic and other ambient noise.

iv. Acknowledge, and offer practical responses to, the fact that for Londoners living in many of the areas marked for 'intensified' regeneration activities in the draft London Plan, construction noise is likely to outweigh ambient noise as a nuisance and health hazard for many years to come.

v. Note that entertainment in the designated areas as described in Policy 77, and outlined in the London Plan, may exclude people who do not have a disposable income.

vi. Review the wording of Policy Proposal 80 to ensure that the establishment of Areas of Relative Tranquillity is not seen as a threat to the existence of the play areas and open spaces that are currently available to local communities and to recognise that they are not the sole solution to domestic noise pollution.

3. Health Impact Assessment on the London Mayoral Strategies

http://www.londonshealth.gov.uk/hia.htm

http://www.londonshealth.gov.uk/allpubs.htm (also includes links to other examples of HIA)
Health Impact Assessments were undertaken on the Mayoral Strategies for London and the text of each of these is available on the above website along with guidance on HIA in general. Five of the HIAs were evaluated by consultants – HIAs undertaken on the transport, economic development, air quality, biodiversity and municipal waste management strategies. The evaluation concluded that undertaking the HIA had been worthwhile although the rapid format utilised appeared to have largely precluded the detailed analysis of likely impacts on health inequalities with reliance instead of stakeholder views elicited at workshops. However issues of inequality and distribution are highlighted in each of the HIAs because of the inequalities agenda in health policy. These uses of HIA provide an interesting example of how HIAs can interrelate with environmental management strategies.

4. Rapid HIA on Fuel Poverty: Westminster City Council


The objective of this ‘rapid’ HIA based around a half day workshop was to contribute to the Best Value Review by carrying out a rapid, retrospective HIA on fuel poverty led by the housing department. The Merseyside Guidelines were used as a framework, the aim was ‘to make a qualitative assessment of the potential health impacts of the council’s activities relating to fuel poverty with a particular emphasis on inequalities and on local strategic partnerships’.

5. HIA of the New Home Energy Efficiency Scheme in Wales

Reflecting the Welsh Assembly’s policy on using HIA an HIA was carried out on the HEES scheme which is a key vehicle for addressing fuel poverty. The HIA included some limited discussion on inequalities and which social groups would be benefit. Some extracts are included below.

or
http://www.housing.wales.gov.uk/index.asp?task=content&a=d8

The impact of new HEES on health inequalities

5.33 The scheme’s eligibility criteria are such that there is intended to be a small transfer of wealth from the general population to a financially disadvantaged group which is also likely to be in poorer health than their wealthier counterparts. The scheme will improve the health of beneficiaries and thereby reduce overall health inequalities.

5.34 The qualifying criteria mean that only those who claim specified benefits are eligible. This means that those who do not claim benefits for which they are eligible or are not benefit recipients at all will not benefit from the scheme even if they are fuel poor. However, the Scheme Manager will provide evidence which could be used to help refine the eligibility criteria as the scheme progresses.

Conclusion

‘6.1 There is a question as to where the boundaries of the population considered to be affected by the new HEES should be set. This is particularly relevant in respect of economic issues. Economists argue that when one group receives a benefit from the state there is no net gain in utility since an equivalent sum has been taken, or ‘transferred’, from others.

6.2 In the case of new HEES, claimants will benefit through energy efficiency improvements to their homes and, it is expected, lower fuel bills. The community at large will also benefit from lower carbon dioxide emissions thus leading to a cleaner environment. The distribution of new HEES resources from the government, financed by taxpayers money, represents a transfer of payments from those that pay tax to those on benefits who pay little or no tax. In health terms, rather than monetary exchanges, it is likely that the health gain experienced by
recipients of the scheme will far outweigh any health loss that might follow the financial loss suffered by taxpayers.

6.5 The new HEES can be generally regarded as beneficial to the health of its recipients and has the potential to reduce health inequalities. It seems likely to reduce the number of sudden deaths caused by faulty heating systems and the premature deaths and ill-health caused by poorly insulated and heated homes. In addition, the home security measures available to elderly householders will increase their security and their feelings of security.
### HEALTH EQUITY AUDITS

**Institution/Govn Department:** NHS, Primary Care Trusts  
**Status:** Relatively new tool, required to be undertaken by PCTs under NHS Priorities and Planning framework 2003-6 which includes priority on inequalities  
**Spatial Scale:** local largely within PCTs but has also been used in relation to specific area based regeneration programmes.

#### General Description

Health equity audits focus more specifically than HIAs on inequalities/inequities in health and for some applications can be seen as a sub-component within an HIA.

DOH strategy document ‘Tackling Inequalities: a programme for action’ describes HEA as ‘a mechanism to use evidence about health inequalities to inform service planning and delivery’.

The Health Development Agency define HEA as ‘a process by which local partners:
- Systematically review inequities in the causes of ill health, and in access to effective services and their outcomes, for a defined population,
- Ensure that action required is agreed and incorporated into local plans, services and practice
- Evaluate the impact of the actions on reducing inequity’.

A DOH guide for PCTs states that ‘HEAs identify how fairly services or other resources are distributed in relation to health needs of different groups and areas and the priority action to provide services relative to need’.

The health audit cycle has 6 steps:

1. agree partners and issues  
2. equity profile: identify the gap  
3. Agree high impact local action to narrow the gap  
4. Agree priorities for action  
5. Secure changes in investment and local delivery  
6. Review progress and assess impact

HEAs are seen as linking closely into the work of LSPs. Step 1 of the cycle is seen as necessarily involving local partnership within the LSP and the HDA guidance is directed at both PCTs and LSPs.

#### Specific Requirement/Method for Distributional Analysis

Distribution analysis or the carrying out of a ‘health equity profile’ is fundamental to health equity audit. Step 2 of the cycle as guided by the DoH includes actions including obtaining data on health inequalities within an area, identifying factors driving health inequalities, making comparisons and identifying weaknesses in data.

In relation to EJ concerns HEA potentially provides for the analysis of the distribution of access to environmental resources which influence health. The HDA guide provides for this breadth of analysis:

‘health inequity describes differences in opportunity for different population groups which result in unequal life chances, access to health services, nutritious food, adequate housing and so on’.

These can lead to health inequalities. Health equity audits focus on how fairly resources are distributed in relation to the health needs of different groups. (This may include resources such as services, facilities, and the determinants of health like employment and environmental conditions).
Evaluation of Use
No evaluation of the implementation of HEAs could be identified. This probably reflects their recent development.

Population Groups Covered (social, spatial, generational)
Potentially any with a defined geographical area (but not beyond). Largely analysed geographically using available spatial units. The DOH guidance advises ‘making appropriate comparisons by area, ethnicity, socio-economic group, gender, age etc.’

Website/reference:
DOH (2003) Tackling Health Inequalities: a programme for action

DOH Health Equity Audit: a self assessment tool
http://www.dh.gov.uk/assetRoot/04/07/55/38/04075538.doc

Health Development Agency (2003) Health Equity Audit Made Simple:
A briefing for Primary Care Trusts and Local Strategic Partnerships
http://www.hda-online.org.uk/documents/equityauditfinal.pdf

Health Commission and HEA within PCT performance indicators
http://www.chi.nhs.uk/Indicators_2004/Trust/Indicator/indicatorDescriptionShort.asp?indicatorId=4247

Examples
Within the HDA guide an example of the evaluation of a health equity audit of a regeneration programme in Liverpool is briefly described. A longer discussion is also available at the following web site:

http://www.dh.gov.uk/assetRoot/04/06/90/88/04069088.pdf

This includes the tables below as an example of a ‘measurement’ framework that covers physical/environmental capital within its remit.

**Figure 2: Equity in Health Appraisal Framework**

<table>
<thead>
<tr>
<th>Human Capital</th>
<th>Social Capital</th>
<th>Physical/Environmental Capital</th>
<th>Economic/Financial Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Geography</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Socio-economic Status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impairment</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table Three: An example of a framework for measuring health equity

<table>
<thead>
<tr>
<th>Type of capital</th>
<th>Socio-economic status</th>
<th>Deprived ward</th>
<th>Affluent ward</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Human capital:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Educational attainment (achievement of state tests at 11 yrs)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maths</td>
<td>54.5%</td>
<td>85.4%</td>
<td></td>
</tr>
<tr>
<td>Science</td>
<td>98.2%</td>
<td>80.7%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>98.3%</td>
<td>85.4%</td>
<td></td>
</tr>
<tr>
<td><strong>Social capital:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Domestic burglary rate (per 1000 population 1997/8)</td>
<td></td>
<td>14.1</td>
<td>8.2</td>
</tr>
<tr>
<td><strong>Physical/environmental capital:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Street cleanliness (% unsatisfactory)</td>
<td>16.0%</td>
<td>4.0%</td>
<td></td>
</tr>
<tr>
<td>Bus stop within 250 metres</td>
<td>100.0%</td>
<td>89.3%</td>
<td></td>
</tr>
<tr>
<td><strong>Economic/financial capital:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployment</td>
<td>11.1%</td>
<td>3.8%</td>
<td></td>
</tr>
<tr>
<td>long term</td>
<td>20.7%</td>
<td>20.4%</td>
<td></td>
</tr>
<tr>
<td>youth</td>
<td>28.3%</td>
<td>29.1%</td>
<td></td>
</tr>
<tr>
<td>Housing benefit</td>
<td>40.6%</td>
<td>11.3%</td>
<td></td>
</tr>
<tr>
<td>Free school meals</td>
<td>49.0%</td>
<td>13.3%</td>
<td></td>
</tr>
<tr>
<td>Public spending per head (1995/6)</td>
<td>£4,532</td>
<td>£3,328</td>
<td></td>
</tr>
<tr>
<td><strong>Health outcome indicators:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emergency admissions per 10,000 population (1998/99)</td>
<td></td>
<td>1,182</td>
<td>706</td>
</tr>
<tr>
<td>All cause standardised mortality ratio under 75 years (1996/98)</td>
<td></td>
<td>160</td>
<td>101</td>
</tr>
<tr>
<td>Proportion of children aged 5 years with dental decay (1997/98)</td>
<td></td>
<td>96.0%</td>
<td>39.0%</td>
</tr>
</tbody>
</table>
## WELL-BEING POWER AND (SOCIAL) WELL-BEING IMPACT ASSESSMENT

<table>
<thead>
<tr>
<th>Institution/Govn Department:</th>
<th>ODPM, Local Authorities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Status:</strong> Discretionary power for Local Government since 2000. WBA very early in development, proposed and experimented with. WBA not currently in official advice</td>
<td><strong>Spatial Scale:</strong> local authority level</td>
</tr>
</tbody>
</table>

### General Description

Well being assessment links directly to the local government discretionary or enabling power under Local Government Act 2000 ‘to promote or improve the economic, social or environmental well-being of their area’.

Well being assessment is not at all widely used or written about – but appears to be a variant on HIA or SIA using the concept of ‘well-being’ to define the scope of analysis. In the Longbenton estate example referenced below the process for HIA is explicitly used to define the process for what it calls Social Well Being Impact Assessment, emphasising the connection.

### Specific Requirement/Method for Distributional Analysis

Guidance on the use of the ‘well-being power’ includes the need to consider tackling social exclusion, neighbourhood regeneration and health inequalities so therefore has a distributional remit. Guidance also emphasises that three dimensions of wellbeing power can be used in combination therefore enabling linking between the social and environmental, and the linkage to community strategies also promotes an integrated approach.

There are very few examples of a ‘well-being assessment’ but those examined relate to regeneration projects which are particularly concerned with deprivation.

### Evaluation of Use

No evaluations identified

### Population Groups Covered (social, spatial, generational)

Well being inherently focuses on the particular locality concerned, and could pick out distributional aspects of any form. Unlikely to consider international or intergenerational.

### Website/reference:

- ODPM Power to promote or improve economic, social or environmental well-being
  http://www.odpm.gov.uk/stellent/groups/odpm_localgov/documents/page/odpm_locgov_605709.hcsp

- Social Well Being Assessment of redevelopment of Longbenton Community Facilities
  http://online.northumbria.ac.uk/faculties/hswe/hia/docs/replongbenton.pdf

### Examples

The Social Well Being Assessment of the Longbenton Community facilities redevelopment uses the table below to define its scope and remit

http://online.northumbria.ac.uk/faculties/hswe/hia/docs/replongbenton.pdf
<table>
<thead>
<tr>
<th>Environmental/Social determinants of social well-being</th>
<th>Individual determinants of social well-being</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air and water quality</td>
<td>Inherited disease susceptibility</td>
</tr>
<tr>
<td>Education and training opportunities</td>
<td>Physiological variations</td>
</tr>
<tr>
<td>Income</td>
<td>Biological threats, (e.g. infection)</td>
</tr>
<tr>
<td>Employment</td>
<td>Pre-conceptual/in utero exposure to risk factors</td>
</tr>
<tr>
<td>Transport</td>
<td>Lifestyle</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
</tr>
<tr>
<td>Social class</td>
<td></td>
</tr>
<tr>
<td>Area of residence</td>
<td></td>
</tr>
<tr>
<td>Access to services</td>
<td></td>
</tr>
</tbody>
</table>
**GENDER IMPACT ASSESSMENT**

<table>
<thead>
<tr>
<th>Institution/Govn Department:</th>
<th>European Commission, DTI Woman and Equality Unit UK, other European governments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status:</td>
<td>Advisory. The GIA is a new tool which has emerged over the last 6 years.</td>
</tr>
<tr>
<td>Spatial Scale:</td>
<td>Potentially any scale, although the EC GIA is intended for assessing EU policies.</td>
</tr>
</tbody>
</table>

Northern Ireland have developed their own gender or equality impact assessment in accordance with the NI Equality Commission's ‘Guide to statutory duties’. See table on Equality Impact Assessment.

The Welsh Assembly has a statutory duty to promote equality. However there are no assembly-wide guidelines at present on how to conduct equality impact assessment or on how to monitor and evaluate policies for equality impacts. Instead the divisions are encouraged to develop their own procedures suitable for their own activities.

Gender impact assessment was adopted by a number of European Governments as a tool for implementing gender mainstreaming in the mid-1990s. A short guide to gender impact assessment was produced by the European Commission in 1998.

**General Description**

A gender impact assessment is designed to help policy makers understand the relative impact of the policy or practice upon men and women respectively, and address any adverse effects. The European Commission Guide to gender impact assessment (1998) is intended for adaptation to the specific needs of each Directorate General and policy area, as appropriate.

The guide suggests that a GIA should be carried out once it is established that a certain policy has implications for gender relations. The guide states that 'in order to carry out gender impact assessment you will take into account the existing differences between woman and men, which are relevant to your policy area, in order to ensure that the policy proposal you are working on contributes to eliminate inequalities and promote the Community objective of equality between woman and men, embedded in Articles 2 and 3 of the new Treaty of Amsterdam'.

In the UK in 1998 Policy Appraisal for Equal Treatment (PAET) guidelines for equal treatment for race, sex and disability were jointly issued by Home Office (race), DfEE (disability) and the Cabinet Office (woman) to all government departments. However, there were several problems with the guidelines including their weak interpretation of gender mainstreaming, lack of information on how us the guidelines to build into policy making pro-active gender equality policies and the lack of specific indication of types of gender issues which would need to be taken into account in the application of the guidelines (Rubery and Rake, 2000). The Woman and Equality Unit along with the Equality Impact Team, who instruct DTI staff in integrating equality into their policies and their services to the public, has since developed an easy-to-use gender mainstreaming tool, "Gender Impact Assessment". This framework is more explicitly targeted at gender issues and also adopts a more proactive approach to gender impact assessment than PAET. It provides a methodology for policy makers in the UK to assess whether their policies will deliver equality of opportunity across the board, and helps to challenge policy makers to question the assumption that policies and services affect everyone.
in the same way.

The WEU GIA includes a framework for gender impact assessment which incorporates 5 steps:

1. Define issues and goals
2. Collect data and develop options
3. Communicate
4. Deliver
5. Monitor and evaluate

Specific Requirement/Method for Distributional Analysis
According to the EC guide 'gender impact assessment means to compare and assess, according to gender relevant criteria, the current situation and trend with the expected development resulting from the introduction of the proposed policy'.

The guide stipulates that sex-disaggregated data should be used and presents the following criteria for gender impact assessment:

Differences between woman and men in the policy field, such as:
- **participation** (sex-composition of the target/population group(s), representation of woman and men in decision-making positions)
- **resources** (distribution of crucial resources such as time, space, information and money, political and economic power, education and training, job and professional career, new technologies, health care services, housing, means of transport, leisure)
- **norms and values** which influence gender roles, division of labour by gender, the attitudes and behaviour of woman and men respectively, and inequalities in the value attached to men and woman or to masculine and feminine characteristics.
- **Rights** pertaining to direct or indirect sex-discrimination, human rights (including freedom from sexual violence and degradation), and access to justice, in the legal, political or socio-economic environment.

The Woman and Equality Unit guidance document specifically addresses distributional analysis within the framework's checklist questions. For example:

**Within Step 2:**
Collect statistics disaggregated by sex. At the same time, consider the potential for collecting data covering minority ethnic groups, people with disabilities, age, religion and sexuality.

Request information from national and community-based organisations, consult woman’s and men’s groups, academics and researchers who may have information and aspects that are new to the government.

Ask:
- What is the gender make-up of the people affected by the policy?
- How can data and statistical information be collected by gender, race, disability, age, religion and sexual orientation?

**Within Step 4:**
Think about how different woman and men will experience the policy or service and consider the potential impact of a double disadvantage such as race and disability.

Promote equality and increase awareness of the customer base by ensuring those developing and delivering the policy represent the diversity of the community being served.

Ask:
Will the policy or service be experienced differently by a woman or man and will the difference be affected by race, disability, age, religion or sexual orientation?

**Evaluation of Use**
In their report to the European Commission, Rubery and Rake (2000) discuss the WEU
gender impact assessment tool in contrast to the PAET. They suggest that the framework makes explicit the need to accept and value equally the differences between men and woman and the diverse roles they play in society. This provides a more adequate framework for gender mainstreaming than the UK government approach which has equated mainstreaming with targeting all disadvantaged groups. Also, in contrast to PAET, the focus is not on gender proofing and justifying existing policies but on introducing gender impact assessment at an early stage in the decision making process so that changes and even the redirecting of policies can take place. Rubery and Rake (2000) also point out that the framework also points to the danger of assuming policies are ‘gender neutral’ when the assumption will simply perpetuate ‘gender blindness’. The framework provides examples of policies that are often not identified as having a gender dimension, for example, transport policy.

No evaluation of the WEU gender impact assessment tool is identified possibly due to its recent development.

Evaluation of the implementation of GIAs in the UK has been carried out by the European’s Expert Group on Gender and Employment (EGGE). The EGGE have also reported on GIA and employment strategy for other European countries including the Netherlands, Spain etc.

Gender impact assessments are routinely used in some Nordic countries where the approach has been described as wearing a ‘gender lens’ or having a ‘gender reflex’. For example, Lindsten (2000) describes the ‘gender reflex’ as focusing on answering three questions (called the three ‘Rs’) in relation to any proposed policy:
− representation (what is the gender distribution of relevant decision-making bodies?)
− resources (what is the distribution of /access to resources for men and women?) and
− reality (do men and women profit from the measure? Who gets what, why and on what conditions?)

Population Groups Covered (social, spatial, generational)
Men and woman. Minority ethnic groups, people with disabilities, age, religion and sexuality are also explicitly mentioned.

Website/reference:

http://www.womenandequalityunit.gov.uk


Examples

Some examples of the implementation of the WEU gender impact assessment approach are summarised in the guidance document – these include a transport example.

Examples of the implementation of GIA in the UK to date largely relate to assessments of employment policies. We have, however, been unable to identify actual examples of GIAs.

Rubery and Rake (2000) argue that although the UK has an abundance of policy evaluation material and has a strong track record in providing data disaggregated by gender, the analyses presented by government bodies of employment policies and practices tend to lack any real analysis of gender. According to Rubery and Rake, some analyses lack any gender disaggregation. Even when gender is introduced it is used primarily to provide a single set of disaggregated tables by gender, with any causal explanations offered limited by and large to woman’s role as mothers. Rubery and Rake include an overview of reports and evaluations related to employment policies which address gender issues and those where a gender
dimension is absent, even when there are reasons for expecting a gender dimension to be important.

For example, Rubery and Rake comment that an evaluation of the impact of the introduction of the **Job seekers’ allowance** to replace unemployment benefit (McKay et al., 1999) did not provide a full analysis of the impact by gender even though many aspects of the change may be expected to have gender effects, for example, the switch from 12 to 6 months entitlement based on contributions (women are less likely to be able to Claim means tested benefits), the focus on active job search (which may conflict with care responsibilities), the requirement to be available for 40 hours of work and at work at all times or to justify lack of availability on the basis of care responsibilities with the decision whether to allow these variations at the discretion of the officials.

The Low Pay Commission report (2000) clearly identifies the gender impact of the **National Minimum wage**, with two thirds of the beneficiaries identified as women and two thirds of these being those in part-time work. The report also comments on the fact that there is no evidence that the NMW has slowed up job creation in low paid segments. There is no comment or analysis of the implications of these trends for understanding the processes which explain the continuation of the gender pay gap or the widening of part-time and full-time differentials over recent years.

Rubery and Rake conclude that in most areas of evaluation of employment policy there is still no systematic introduction of a gender analysis and where gender is used as a variable, the analysis is limited simply to an investigation of participation rates.


**FUEL POVERTY ANALYSIS**

<table>
<thead>
<tr>
<th>Institution/Govn Department:</th>
<th>Secretary of State (England), National Assembly for Wales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status:</td>
<td>Statutory</td>
</tr>
<tr>
<td>Spatial Scale:</td>
<td>National</td>
</tr>
</tbody>
</table>

**General Description**

The Warm Homes and Energy Conservation Act requires the publishing and implementation of a strategy for reducing fuel poverty, produced for each of England, Wales, Scotland and Northern Ireland. The strategy must
- Describe the households to which it applies
- Specify a comprehensive package of measures for ensuring the efficient use of energy, such as the installation of appropriate equipment or insulation
- Specify interim objectives to be achieved and target dates for achieving them
- Specify a target date for achieving the objective of ensuring that as far as reasonably practicable persons in England and Wales do not live in fuel poverty.

The Strategy currently in place is The UK Fuel Poverty Strategy (2001). The strategy sets out the framework for delivery of the Government's overall goal of seeking an end to the problem of fuel poverty, with the first target being to reach those most vulnerable to cold related ill health by 2010. Within England implementation of the strategy is overseen by DEFRA.

**Specific Requirement/Method for Distributional Analysis**

Fuel poverty assessment is carried out within the UK Fuel Poverty Strategy (2001).

The Warm Homes and Energy Conservation Act specifies that ‘a person is to be regarded as living in fuel poverty if he is a member of a household living on a lower income in a home which cannot be kept warm at a reasonable cost. The authority preparing the strategy may specify what constitutes a lower income or reasonable cost, or the circumstances in which a home is to be regarded for those purposes as being warm.

For example, the UK Fuel Strategy states that the number of households in fuel poverty in England will be displayed on the basis of two definitions:

1. A household is in fuel poverty if, in order to maintain a satisfactory heating regime, it would be required to spend more than 10% of its income (including housing benefit or ISMI) on all household fuel use.
2. A household is in fuel poverty if, in order to maintain a satisfactory heating regime, it would be required to spend more than 10% of its income (excluding housing benefit or ISMI) on all household fuel use. This is the definition which was used in the 1991 English House Condition Survey.

The strategy includes separate definitions of fuel poverty for use in Scotland, Wales and Northern Ireland.

The UK Fuel Poverty Strategy does not include distributional analysis but:
- includes definitions of fuel poverty households (for England, Wales and Northern Ireland).
- These definitions take into account householders on low income, vulnerable households (those containing children or people who are elderly, sick or disabled), householders in rural areas do not have access to the gas network and householders who live in underoccupied dwellings (where a spouse has died or children have left home).
- Includes estimates and trends in the numbers of fuel poor in the UK

The Building Research Establishment (BRE) produces the estimates of fuel poverty in England on behalf of the Government. In order to carry out effective fuel poverty strategies local authorities need to consider and measure the existing prevalence of fuel poverty in their area and the local causes and aggravators as well monitoring progress on fuel poverty. The Scottish Executive have produced ‘Fuel poverty guidance for local housing strategies’ which
states that a fuel poverty analysis must measure 3 factors for each household: income; household energy efficiency (NHER); and fuel cost. Some level of local information can be gained from the Scottish House Condition Survey (SHCS) and local authorities can collect detailed information about local conditions such as local economy and income issues. Although no separate guidance on fuel poverty measurement for local authorities was identified for England, Wales and Northern Ireland, the UK Fuel Poverty Strategy includes a suite of fuel poverty indicators developed by the Fuel Poverty Monitoring and Technical Group for measuring and monitoring fuel poverty. The indicators fall into the three main areas of income, fuel prices and housing.

**Evaluation of Use**

There were 282 responses to the draft UK Fuel Poverty Strategy. 150 respondents commented on various aspects of the definition of fuel poverty. This included suggestions that there were differences of definition between the countries of the UK, both in terms of how income was defined and of whether it covered all energy use or just energy used for heating. Respondents felt there should be a consistent definition across the UK.


**Population Groups Covered (social, spatial, generational)**

Specifically low-income householders but also includes members of vulnerable households, rural householders with no access to the gas network and household members who live in underoccupied dwellings.

**Website/reference:**


EQUALITY IMPACT ASSESSMENT

Institution/Govn Department: Northern Ireland Equality Commission, some local authorities in England

Status: Advisory in Northern Ireland. The Guidance document ‘Practical guidance on equality impact assessment’ has recently been reviewed (July 2003) and the revised draft document is available on the NI Equality Commission website.

Spatial Scale: National, regional, local. Some english local authorities also have their own guidelines for carrying out EQIAs.

General Description
Section 75 of the Northern Ireland Act (1998) placed a requirement on each public authority to have due regard to the need to promote equality of opportunity. The Act requires equality schemes to conform with the Equality Commission's ‘Guide to statutory duties’. The guide outlines the principals of an equality impact assessment. The NI Equality Commission document ‘Practical guidance on equality impact assessment’ describes the EQIA as a thorough and systematic analysis of a policy to determine the extent of differential impact upon the relevant groups and in turn whether that impact is adverse, that is whether it has a negative impact on groups or individuals in relation to one or more of nine equality categories.

The nine equality categories, as defined in Section 75 of the Act, are:

- religious belief,
- political opinion,
- racial group,
- age,
- marital status,
- sexual orientation,
- disability and dependency.

The guidance stipulates that in the light of this assessment, if it is decided that the policy has an adverse impact, the public authority must consider alternative policies which might better achieve the promotion of equality of opportunity or measures which might be employed to mitigate adverse impact.

There are seven separate elements of an EQIA (contained in Annex 1 of the Guide to Statutory Duties, issued by the Equality Commission and their "Practical Guidance on Equality Impact Assessment"):

- Define the aims of the policy
- Consideration of Available Data and Research Assessment of Impacts
- Consideration of:
  - Measures which might mitigate any adverse impact
  - Alternative policies which might better achieve the promotion of equality of opportunity
- Formal consultation
- Decision by public authority
- Publication of results of EQIA
- Monitor for adverse impact in the future and publication of the results of such monitoring
### Specific Requirement/Method for Distributional Analysis

Analysis of differential impact is fundamental to equality impact assessment. Chapter 2 (step 2) of the practical guidance by the NI Equality Commission describes the sort of data collection and research that should be carried out for an EQIA in order to judge the impact on the included groups. Chapter 3 (step 3) provides guidance on the assessment of impacts and provides checklist questions such as:

- Is there differential impact on any of the groups in respect of the quantitative data?
- Is there differential impact on any of the groups in respect of the qualitative or evaluative data?
- Is there a difference in the conclusions reached using quantitative and qualitative methods? How can the difference be reconciled?
- Is the differential impact an adverse one?
- Is the policy directly or indirectly discriminatory? If the policy is not directly or indirectly discriminatory, does it still have an adverse impact?
- Is the policy intended to increase equality of opportunity by permitting or requiring affirmative or positive action or action to redress disadvantages? Is it lawful?
- Is there any alternative measure which would achieve the desired aim without the adverse impact identified?
- Is there any mitigation which would alleviate the adverse impact identified? Are there additional measures which can be adopted which would further equality or opportunity in the context of this policy?

EQIA is not merely about the identification of either direct or indirect discrimination. It is about promoting equality of opportunity in relation to the nine equality categories and to all groups within those categories.

### Evaluation of Use

Results of consultation on the draft guidance document are not yet included on the Equality Commission website. No evaluation of the implementation of EQIAs could be identified despite the fact that EQIAs are widely used in Northern Ireland.

### Population Groups Covered (social, spatial, generational)

Groups defined by religious belief, political opinion, racial group, marital status, age, sexual orientation, persons with a disability, persons with dependants, men and woman generally (including boys, girls, transgendered people, transsexual people).

### Website/reference:


### Examples

EQIAs are widely used in Northern Ireland and range from a national assessment of the National Minimum Wage (http://www.dti.gov.uk/niequality/nmw-impact-assessment/), proposed changes to entitlement of parents in employment (http://www.delni.gov.uk/docs/select/paternity%20equality.pdf), equality impact assessment on payment of less favoured area support (http://www.dardni.gov.uk/file/eiasupp.doc) and, on a local scale, Coleraine Borough Council’s burial grounds policy (http://www.colerainebc.gov.uk/docs/EIA-burial-grounds-nov-2003.pdf). These equality impact assessments are based on the framework of 7 steps (above). In most cases, an assessment of the impact is split into the nine categories identified under the Section 75 statutory duties.

**Work and parents: maternity-, paternity-and adoption pay and leave**

`The EQIA assesses proposed changes to entitlement of parents in employment in Northern Ireland. The changes relate to simplification of the maternity pay and leave framework and the introduction of paid parental leave and paid adoption leave. The EQIA finds that there are...`
major equality aspects to the proposed changes. These are focussed in the areas of gender and dependency (with children and without). The implications of the changes are equality promoting, reducing differentials amongst employees as between parents and those without child-related demands. Any apparent gender bias in the proposals (for example maternity leave is accessible only by woman) reflects gender specific factors, and is acting to offset them.

In a highly limited way the proposals potentially could have weak equality implications arising through cultural traditions, which in turn are closely related to the areas of religious belief, racial group and political opinion. Differential treatment here is not unequal treatment.

National Minimum Wage

The EQIA considers the impact of the National Minimum Wage on the nine groups protected from discrimination by the NI Act 1998. The following are a few examples of the outcomes of the EQIA:

In Northern Ireland (as GB) the NMW has a positive impact on women workers. Significantly more women than men work in low paid jobs and approximately 70% of those who have benefited from the NMW are women. But the national pay gap between men and women’s full time hourly pay remains 18%. On a weekly basis, women in the UK earn 74.7% of men’s pay but in NI earn 80.5% of men’s pay.

In introducing the NMW, the Government estimated provisionally that it would help around 130,000 ethnic minority workers in the UK. Publicity campaigns have targeted ethnic minority communities in known low pay areas, including information in appropriate languages. The minority ethnic population in NI is less than 1% of the total population.

The EQIA focuses on 16-17 year olds, who are not eligible for the NMW; and 18-21 year olds, who receive a lower rate than adults of 22+. A majority of community groups consulted thought the adult NMW should apply to all. However, the Government position has been that 16-17 year olds should be in full time education or vocational training, and that a NMW might attract them away from that; and that it is reasonable for 18-21 year olds to be in education, or to be employed at training rates whilst they reach the standard of adult workers.

Equality impact assessment on payment of less favoured area support

‘This Equality Impact Assessment (EQIA) sets out the possible qualitative and quantitative impacts of the Department’s Less Favoured Area (LFA) support policy. The Northern Ireland Department of Agriculture and Rural Development concludes that whilst there is potential for differential impact on some of the groups, the differential impact is not adverse. The fundamental aim of the LFA policy is to support and maintain traditional agriculture in disadvantaged areas which, because of location, climate and topography, would otherwise be vulnerable to economic decline and depopulation. This support is delivered through the payment of Less Favoured Area Compensatory Allowance (LFACA), at rates designed to compensate farmers for the physical and economic disadvantages of farming in the LFA compared with lowland farming, and not to provide a positive financial benefit.’
**REGULATORY IMPACT ASSESSMENT**

<table>
<thead>
<tr>
<th><strong>Institution/Govn Department:</strong></th>
<th>Cabinet Office but applies to all Departments</th>
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<tr>
<td><strong>Status:</strong></td>
<td>A stated requirement (but not statutory) from 1998 for all proposals (legislative and non-legislative) which are likely to have a direct or indirect impact on business, charities or the voluntary sector and could have a regulatory solution. As of 1st April 2004 the Policy Effects Framework (PEF) has been integrated into the RIA process to provide one tool for impact assessments for all measures whether they affect the private and/or public sector.</td>
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<tr>
<td><strong>Spatial Scale:</strong></td>
<td>National</td>
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**General Description**

A Regulatory Impact Assessment (RIA) is an assessment of the impact of policy options in terms of costs, benefits and risks of a proposal. It is not specific to the UK Civil Service—many countries use a similar analysis and large organisations appraise their investment decisions in similar ways.

An RIA must be carried out for all proposals (legislative and non-legislative) which are likely to have a direct or indirect impact on business, charities or the voluntary sector and could have a regulatory solution – and as of April 1st 2004 also proposals which affect the public sector once a ‘public sector threshold test’ is passed. Once the RIA is undertaken it should cover the full range of impacts on all stakeholders. An RIA is also needed for:

- changes are being made by Regulatory Reform Order (RRO), even if they have no impact on business, charities or the voluntary sector.
- a Private Members’ Bill which the Government is planning to support, or is not intending to oppose
- legislative and non-legislative proposals which originate outside the UK in order to obtain policy clearance for the ministers negotiating stance when attending international meetings and to support UK negotiations
- EU proposals (including directives, regulations and decisions)
- International meetings which might result in legally binding commitments at a later date such as meetings or conferences where recommendations are made which may later lead to action to implement them

The Cabinet Office guidance ‘Better policy making: a guide to regulatory impact assessment (2003)’ was revised and consulted on in 2002. The revised guidance places increased emphasis on the effects of proposals on small firms. It now also integrates advice on measuring the effect on competition and gives additional advice on exploring alternatives to state regulation and undertaking better consultation. This version of the RIA guide also now incorporates guidance on handling European legislative proposals.

Further revisions to the web site support pages were made in Spring 2004 to broaden the application of RIA to public sector impacts and also to strengthen RIA and guidance ‘in relation to the appraisal of social and environmental impacts’. The SDU web site on sustainable development within RIA also states that ‘Departments must now explicitly identify any significant environmental and social costs and benefits, as well as economic costs and benefits, when completing RIAs; and Ministers must consider the economic, environmental and social impacts of a policy proposal when signing-off RIAs, as well as confirming that the benefits of a measure outweigh the costs’. These changes to the RIA were made as a result of the findings of the pilot evaluation of the use of Integrated Policy Appraisal within government (see table on IPA).
The SDU also considers that ‘The combined effect of the changes to the RIA means that the systematic consideration of sustainable development impacts will be mandatory for central Government policy makers whenever they develop a significant proposal for change. The cost benefit approach to appraisal which is used in RIAs enables the different goals of sustainable development to be considered alongside each other (for example, some increase in pollution may be acceptable where it brings great economic benefits). Government policy making will therefore be more sustainable:

- policy makers must consider environmental, social and economic impacts more broadly and at an early stage in the development of a policy proposal. There is therefore more scope for expanding identified policy options, and to find ways to reduce or mitigate against adverse potential consequences, as well as to enhance potential benefits;

- if the probable costs of a policy proposal, including environmental and social costs, outweigh the probable benefits, then the proposal is less likely to get Ministerial consent. Additionally, where the evidence base is weak, the precautionary principle is explicitly brought into play to prevent unacceptable risks to the economy, society or the environment;

- consideration of wider impacts should lead to wider consultation within government, greater joining-up between policy teams and better integration between policies - making government as a whole more effective at achieving its economic, social and environmental goals’

The RIA consists of 3 main phases:

- An initial RIA which should be prepared as soon as a policy idea is generated
- A partial RIA which builds upon this, is produced prior to the consultation exercise and must accompany the consultation document
- A full/final RIA, building on the information and analysis in the partial RIA, which is prepared for the post-consultation collective agreement and, if it is a regulatory proposal, for the parliamentary process

The Cabinet Office guidance document includes an RIA checklist with 13 steps to be carried out:

1. Title of proposal/proposed regulation
2. purpose and intended effect of measure
3. options
4. costs and benefits
5. equity and fairness—for each option identify key groups that could be disproportionately affected
6. small firm’s impact test
7. competition assessment
8. enforcement and sanctions
9. consultation
10. monitoring and review
11. summary and recommendation
12. ministerial declaration
13. contact point
(Also see RIA template reproduced below)

The Regulatory Impact Unit in the Cabinet Office oversees the use of RIA and works with government departments to ensure that ‘robust’ RIAs are produced and that ‘best practice’ is disseminated.

Specific Requirement/Method for Distributional Analysis

In the RIA Guidance document (2003) and the RIA template distributional analysis is included
as a necessary stage in carrying out an RIA. Costs and benefits to business sectors (and types and size of business) must be calculated (step 4) including environmental and social benefits and costs and distributional impacts; the key groups that could be disproportionately affected must be identified (step 5) and the impact to small firms considered (step 6). The fairly substantial guidance text is reproduced below. While there is an emphasis throughout on economic impacts, the need to incorporate and cost social and environmental impacts and their distribution is also expected to be part of the RIA remit.

Assessing benefits
‘You should identify the type of organisations and/or individuals likely to benefit from your proposals and estimate the numbers involved. You can then move on to determining broadly how they will benefit, for example, from a cleaner environment, better health, a safer workplace, improved food hygiene etc. Keep the full range of potential benefits in mind, including any social and environmental benefits of your proposals. You should try and come up with broad estimates of the benefits e.g. the benefits are likely to be in the order of tens of millions of pounds. If it is not possible to do this then try to give some idea of the magnitude by quantifying the main impacts e.g. a broad idea of the number of injuries avoided, number/miles of rivers improved, number of employees enjoying better working conditions etc.

Where the policy has distributional impacts, you should consider the transfers involved. It is important to recognise where the benefits identified are not the benefits to the economy as a whole, because the perceived gain to one section of the economy will come only at a cost or loss to some other section of the economy. Examples of this might include an increase in social security payments or increased sales by one sector at the expense of another sector. What should be noted is the redistribution of income or opportunity arising from the policy.’

Assessing costs
‘You should identify the type of organisations and/or individuals likely to benefit from your proposals and estimate the numbers involved. For business, charities and the voluntary sector identify the kinds of activities which they will need to undertake and the likely changes in behaviour. Think about how long this will take them, how many employees will be affected and how much the equipment will cost. Try and quantify the costs.

Distributional impacts: Where redistribution has been noted in the assessment of benefits, the corresponding cost should be noted.’

Identifying disproportionate impacts to business sectors
‘Some firms may be more affected than others e.g. small firms. You should identify where the burden is likely to fall most heavily and think about whether the benefits fall in one place and the costs in another.’

Other groups
‘You should also consider the extent to which ‘other groups’ (i.e. not firms, charities or the voluntary sector) for example, consumers and the public sector, might be affected by your proposal. Benefits may accrue to a specific group such as workers, consumers or low-income groups or to society in general. There may be costs to certain groups such as premiums for car owners having to comply with compulsory motor insurance. The proposal may impose costs on public sector organisations such as local authorities.’

Sustainable development
‘One purpose of cost-benefit analysis is to ensure that in pursuing any single objective, disproportionate costs are not imposed elsewhere. Apart from the burdens on business, regulatory policies designed to meet the needs of the present may also result in costs to the environment or social welfare. The principle of sustainable development requires that these costs be considered in policy appraisal so that the welfare (social, economic and environmental) of future generations is not compromised. Therefore the cost-benefit analysis must take account of a wide range of costs and benefits, which may be broadly categorised in 3 groups: social values and progress; environmental protection; and the economies long-term growth and development.’
There is then a further comment that ‘Policymakers should consider the most appropriate time horizon for assessing costs and benefits and note that the Treasury Green Book applies different discount rates for distant costs and benefits’. In a later section however it is stated the the usual time horizon for discounting is 10 years, which does not extend to intergenerational impacts.

**Equity and Fairness**

‘Issues of equity and fairness can arise in a number of different situations. They can be both positive (for example, the proposal helps elderly people in some way), or negative (for example, the proposal will reduce the incomes of those in poorer parts of society) and both these aspects must be outlined in the RIA. Issues of equity and fairness are sometimes obvious, when, for example, a proposal impacts on one particular group of people (e.g. the elderly, ethnic minorities, those with disabilities) or business sector or where the benefits are gained by a different group to those that bear the costs. However, it may be less obvious, so informal consultation is important to establish where the impacts fall. You should ensure that your chosen option does not inadvertently create new groups of vulnerable people.’

In addition to the 2003 guidance document the RIA web site links to the Regulatory Impact Unit web pages which are intended to reflect the update to RIA which took place from 1st April 2004 (although there is currently some discrepancy between what is said on the SDU web site about the new RIA and the guidance on the RIU site, for example in relation to checklists) This has a section on equity and fairness which includes links to relevant documents on gender, age, ethnicity, disabilities, regions, devolved countries and rural areas. The RIA template, which is reproduced below now has explicit sections on environmental and social costs and benefits advises and the guidance advises that ‘you need to consider whether the proposal is correcting a current inequality, introducing an inequality that might be justified or will be neutral in effect. Will some be more affected than others? Will the benefits be gained by a different group from those that bear the costs?’

A link is also made to the Better Regulation Task Force report on ‘Protecting Vulnerable People’. (2000) The main objectives of this report were to examine the contemporary factors that make people vulnerable and identify any general rules or procedures which policy makers and regulators could use to analyse vulnerability and develop appropriate strategies for the protection of vulnerable people. A thoughtful and detailed analysis of vulnerability and its causes is provided, identifying many different types of vulnerability and vulnerable groups (related to poverty, disability, age, gender, ethnicity, geography, technology) but it is noticeable that this analysis almost entirely relates to the economic and social dimensions of vulnerability. References are made to issues of food poverty, and transport and social exclusion, and neighbourhood regeneration but other environmental issues coming with an EJ agenda are overlooked.

The government response to this report largely accepts the recommendations it makes, which include that ‘the Government and local authorities should examine how social benefits could be maximised through the application of the public spending process without jeopardising best value’ and that ‘The prime purpose of Government policy regarding vulnerable people should be to enable them to participate fully in society. But where this is not possible, adequate support will be required’

**Evaluation of Use**

RIAs appear to being carried out for almost all relevant proposals. A ministerial statement in July 2004 stated that ‘a snapshot of the level of compliance, based on consultations carried out in the twelve weeks to 16 June 2004, showed a compliance rate of 96%’

No more detailed evaluation of the implementation of the RIA assessment procedure has been identified although there is an abundance of consultation in relation to specific RIAs. Consultation on the revised RIA guidance (2002) did not include discussion of distributional issues.
It is too early to assess the impact of the most recent changes to RIA (as of 1st April). However, it is significant that from 2003/04, the National Audit Office has a new role in reviewing the quality of a sample of RIAs; and from 2004 departmental reports will require statements on what is being done to support better regulation and to improve the quality of RIAs.

In the 2004 Pre Budget report it is stated that there is a need to drive up the quality of RIAs generally and that there should also be post-regulation review to assess how well new policies are working.

### Population Groups Covered (social, spatial, generational)

Impacts on business, charities or the voluntary sector groups initiate the RIA - although once the RIA is undertaken it should cover the full range of impacts on all stakeholders (gender, age, ethnicity, disability, regions, income are listed in guidance). Future generations are explicitly included within the remit of RIA.

### Website/reference:

- Guidance document
  - [www.cabinetoffice.gov.uk/regulation/ria-guidance](http://www.cabinetoffice.gov.uk/regulation/ria-guidance)

- Ministerial statement on compliance

- Regulatory Impact Unit

- Better Regulation Task Force Report Protecting Vulnerable People
  - [http://www.brtf.gov.uk/taskforce/reports/entry%20pages/vulnerablepeopleentry.htm](http://www.brtf.gov.uk/taskforce/reports/entry%20pages/vulnerablepeopleentry.htm)

- Government response to protecting vulnerable people

- Sustainable Development Unit Web Pages on RIA and Sustainable Development

### Initial/Partial/Final RIA Template (2004 version)

- [www.cabinet-office.gov.uk/regulation/ria-guidance/content/ria-template/index.asp](http://www.cabinet-office.gov.uk/regulation/ria-guidance/content/ria-template/index.asp)

1. **Title of Proposal**

2. **Purpose and intended effect of measure**
   (i) The objective
   (ii) The background
   (iii) Risk assessment

3. **Options**

4. **Benefits**
   - Economic
   - Environmental

5. **Costs**
   - Economic
   - Environmental
6. Equity and Fairness

7. Consultation with small business: the Small Firms’ Impact Test

8. Competition Assessment

9. Enforcement and Sanctions
   How will the proposal be enforced?

   Who will enforce this legislation?

   Will the legislation impose criminal sanctions for non-compliance?

10. Monitoring and Review

11. Consultation
   i) Within government

   ii) Public Consultation

12. Summary and Recommendation

<table>
<thead>
<tr>
<th>Option</th>
<th>Total cost per annum Economic, environmental, social</th>
<th>Total benefit per annum Economic, environmental, social</th>
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<tbody>
<tr>
<td>1</td>
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13. Declaration

   I have read the regulatory impact assessment and I am satisfied that the benefits justify the costs

   Signed ........................................

   Date

   Minister’s name, title, department

Examples

Examples of RIAs follow the RIA checklist included in the Cabinet Office guidance (see above). Three recent RIAs have been selected below because of their potential relevance to EJ issues. Distributional issues are addressed in these to varying degrees


The aim of the white paper is to provide a strategic framework for the development of airport capacity in the UK over the next 30 years, against the background of wider developments in air transport. This RIA tackles both the impact on business and on the local community. The costs and benefits of additional capacity have, where possible, been quantified in monetary terms. Spatial analysis has been carried out in order to quantify numbers of people affected by an increase in airport capacity (e.g. by noise or air quality) but the RIA does not examine
the distribution of impacts amongst different social groups. Key parts of the RIA including where some distributional analysis would have been appropriate are reproduced.

Environmental costs
‘The main environmental impacts capable of approximate quantification are noise from aircraft and the effect of aircraft emissions on global warming. The benefits of airport expansion—in the event of three or four new runways—might be reduced by between £1 billion and £2.5 billion if these costs were fully reflected. Estimates of the health costs arising from local air quality were even more uncertain, and ranged from a level too low to be significant up to a range of some £100m–£200m per year.

The most significant local negative impact is probably the annoyance caused by aircraft noise. The approximate onset of significant community annoyance from daytime noise is marked by the 57dBA noise contour. Properties near airports or under flight paths may have a lower value due to aircraft noise, than they would in its absence (though the advantages of proximity to airports may have offsetting positive effects). There is tentative evidence that high noise levels experienced at schools under flight paths can have a negative impact on pupil attainment.

Monetary values for the effects of noise were estimated by assessing the impact of increased air traffic noise on house prices around the affected airport. Past research has tentatively found that a 1dBA lasting change in noise results in an approximate 0.5–1 % change in house prices. In terms of actual numbers of people affected by aircraft noise, the estimated numbers who might be affected in 2030 by daytime noise in excess of 57dBA with the addition of one new runway have been calculated. For example, the number of people within the 57dBA daytime noise contour with the addition of a new runway at Heathrow will be 332,000.

Local air quality
The number of people predicted to be exposed to EU limits of PM$_{10}$ and NO$_2$ was modelled. For all runway options no people living near airports were forecast to be exposed to levels of PM$_{10}$ in exceedence of EU limits. 5,235 people were predicted to be exposed to EU limits on NO$_2$ for 2015. There may be a health impact on people exposed to less than the exceedence, but this cannot be quantified on the basis of current knowledge.

Other costs
‘In reaching decisions about additional capacity Ministers have taken account of a number of other impacts including land and property take, heritage, ecology, water and urbanisation. It is also possible that surface access links to airports could run through communities and disrupt community access and networks.’ These impacts have not been quantified in monetary terms as there is uncertainty about the evaluation methodology. Instead, the impacts have been quantified in terms of amount of impact e.g. low or high.

The white paper will remove uncertainty and anxiety for many people suffering ‘generalised’ blight as a result of proposals for airport development in the consultation. But others will be affected where new runways are favoured and where land is safeguarded for future development by the White paper.

Equity and fairness
Other than airports, there are no groups likely to be disproportionately affected.’

This RIA assesses whether or not health authorities should decide if water is fluoridated. The RIA is primarily concerned with the impact of water fluoridation on social groups’ oral health. The assessment refers to distributional research carried out to find out which social groups are affected by the inclusion or exclusion of fluoride in drinking water, but the analysis is not included in full. Key sections are reproduced.
The Water (Fluoridation) Act 1985, consolidated in sections 87 to 90 of the Water Industry Act 1991, has not achieved the policy intention of successive governments of giving local communities the right to decide whether fluoride should be added to their drinking water.

The fluoridation measures are intended to bring about the overall improvement of oral health and a reduction in the inequalities between areas. This will be achieved by giving local communities a say in whether their water should be fluoridated or not, and by moving the final decision on fluoridation from water companies to health authorities. There has been a major improvement in oral health over the past 20 years, but major inequalities persist. A survey carried out by the British Association for the Study of Community Dentistry in year 2000 showed that five year olds in the West Midlands (where drinking water is fluoridated) had, on average, nearly three times less decayed, missing or filled primary teeth than those in the North West (not fluoridated). Dental disease correlates with social deprivation (except in fluoridated areas) and children suffer the additional disadvantage of loss of sleep and time off school as a result of tooth decay. Some children who need to have teeth extracted under general anaesthetic undergo the additional risks to overall health that this procedure inevitably carries. Costs of dental treatment are also higher in deprived areas without fluoridation.

Dental disease correlates with social deprivation (except in fluoridated areas) and children suffer the additional disadvantage of loss of sleep and time off school as a result of tooth decay. Some children who need to have teeth extracted under general anaesthetic undergo the additional risks to overall health that this procedure inevitably carries. Costs of dental treatment are also higher in deprived areas without fluoridation.

Opponents of fluoridation have long questioned the benefits to oral health and claimed there are risks to overall health, but two recent research studies - by the University of York and the Medical Research Council - have confirmed the benefits and found no evidence of risks to health.

Options
There are two main options:

- Option 1: Do nothing and continue to try and reduce the inequalities by oral health promotion measures such as advising parents/children on good oral hygiene, diet etc.

- Option 2: Use of selected fluoridation schemes to obtain an overall improvement in oral health and a reduction in inequalities in oral health.

Benefits
Changing behaviour in respect of diet and tooth brushing in deprived communities, as per option 1, has proved very challenging. Costs of oral health promotion programmes are very high relative to the benefits because of the staff and materials required. Therefore pursuing option 1 on its own is unlikely to reduce inequalities.

Reductions in tooth decay among children should be evident within five years of fluoridation, as proposed under option 2. Fluoridation is capable of a major contribution to reducing health inequalities as evidenced by the contrasting level of tooth decay in areas of similar population mix.

Because of the particular benefits socially disadvantage people who have difficulty in maintaining oral hygiene regimes or modifying their diets it could be argued that it is unfair to deprive families in areas of high tooth decay of the proven benefits of fluoridation. Running costs of fluoridation schemes (borne by health authorities) are about 40p per head of population per year. This compares very favourably with the cost of restorative dental treatment.

Costs
Extending fluoridation would not impose any new regulatory requirements or costs on charities, voluntary organisations or business. In the long term there would be benefits from a
healthier workforce taking less time off for dental treatment. The costs to the water companies are reimbursed by the NHS including the plant which has to be installed in the water treatment works, the fluoride compounds used in dosing the water and any cost incurred by major users of water - eg companies in the food and drink industry - who have to use filters to reduce the concentration of fluoride in their water.

**Recommendation**
It is recommended that option 2 is pursued in order to allow Health Authorities to take account of local opinion and to require water companies to add fluoride to water.’


The purpose of this RIA is to assess the impact of climate change levy. The levy has been appraised for its potential impact on the environment and particular groups of society and business. However, the RIA is primarily concerned with costs and benefits to business. The benefits (including environmental benefits) are broad and do not distinguish between social groups. There is no consideration of international or intergenerational distributions.

‘**Issues of equity or fairness**
The Government does not intend to introduce new taxes on to the domestic use of fuel and power, for social policy reasons. However, the Government has announced a number of programmes to reduce greenhouse gas emissions from this sector.’

**Costs**
The estimated effects of the levy package on the industry and service sectors (including the public sector) are set out in monetary terms within the RIA.

‘**Distributional effects; Number and type of losers; Average loss; Gainers**
It is not possible to say at this stage what the net effect of the introduction of climate change levy will be on individual industries or sectors. The net effect depends on:

- the future energy consumption of firms in the sector;
- the level of employment in those firms;
- the number of energy intensive firms in that sector that are eligible to receive a discount on the main rates of the levy by signing up to an energy efficiency agreement;
- what use firms in that sector make of electricity generated from 'new' renewable sources of energy and in 'good quality' combined heat and power plants; and
- the extent to which firms in that sector take advantage of the proposed introduction of a system of enhanced capital allowances for energy saving investments.

**Gender impact**
None envisaged.

**Environmental impact**
The levy package as a whole is expected to save at least 5 million tonnes of carbon a year by 2010. These savings will make an important contribution towards meeting the UK’s Kyoto targets for reducing greenhouse gas emissions, and the Government’s domestic goal for reducing carbon dioxide emissions.’
### GREEN BOOK GUIDANCE

<table>
<thead>
<tr>
<th>Institution/Govt Department:</th>
<th>Treasury but guidance applies to all central government departments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status:</td>
<td>Guidance only but has high status and there are expectations that it will be followed</td>
</tr>
<tr>
<td><strong>Spatial Scale:</strong></td>
<td>National, regional and local policies, programmes and projects funded by central government</td>
</tr>
</tbody>
</table>

### General Description

The Green Book is intended to provide guidance on how proposals should be appraised before significant funds are committed, and also on how past activities should be evaluated. It is intended to ‘encourage a more thorough, long-term and analytically robust approach to appraisal and evaluation’

It is has the aim of ‘describing how the economic, financial, social and environmental assessments of a policy, programme or project should be combined’ (pg 1)

The key section on appraising options advises on the use of monetary techniques, including how to apply monetary values to costs and benefits that have no market value.

RIA only applies to proposed regulations whereas the Green Book guidance is more widely applicable.

### Specific Requirement/Method for Distributional Analysis

The latest edition is 2003 and it is noted that one of the changes made in this edition is ‘a greater emphasis on assessing the differential impacts of proposals on various groups in society’

Annex 1 discusses the rationale for government intervention via a policy, programme or project. Equity is the second of two primary reasons for intervention: ‘the achievement of an equity objective, such as local or regional regeneration’. The initial guidance on equity states that ‘before acting, an assessment should be made of the extent of the inequality to be redressed and the reasons it exists’

Paras 5.33 to 5.41 discuss how to adjust the values of costs and benefits in options appraisal because of distributional effects. Whilst recognising a range of differential impacts it also states that ‘generally though, these distributional issues are largely correlated with income. Therefore, if more in depth analysis is undertaken, it should focus on how the costs and benefits of a proposal are spread across different socio-economic groups’

Annex 5 provides more detailed guidance on how distributional impacts should be assessed. The type of differential impacts listed are income, gender, ethnic group, age, geographical location, disability. Paragraph 3 states that: ‘Any distributional effects identified should be explicitly stated and quantified as far as possible. At a minimum this requires appraisers to identify how the costs and benefits accrue to different groups in society’.

The following technical detail then focuses on how to analysis impacts according to income, through using quintiles, equivalised gross income and applying distributional weighting (reflecting the income emphasis noted above).

Guidance on analysing other (non-income) distributional impacts focuses initially on discrimination law and policy but then advises that analysis should go further than this as ‘unless appraisers consider the impact a particular proposal has on different groups in society, they cannot be sure the action is having the intended effect’. The three steps then advised are to:

1. Analyse how the proposal will affect different groups of people (e.g. gender, ethnic group,
age, disabled, location)
2. Consider whether there are any adverse differential impacts on a particular group. If so, are these impacts unfair or unlawful, or do they contradict overall Government policy?
3. If the action is now permissible in the above senses, remedial action is necessary. If however, it is permissible, appraisers must decide:
   - if alternative action could meet the objectives without the same adverse consequences; or
   - whether there are any measures that can be taken to reduce the predicted adverse impacts

The use of discounting within CBA also addresses to some degree interests of future generations. The Green Book states in section 5 that ‘discounting is a technique used to compare costs and benefits that occur in different time periods. It is a separate concept from inflation, and is based on the principle that, generally, people prefer to receive goods and services now rather than later. This is known as ‘time preference’.

For individuals, time preference can be measured by the real interest rate on money lent or borrowed. Amongst other investments, people invest at fixed, low risk rates, hoping to receive more in the future (net of tax) to compensate for the deferral of consumption now. These real rates of return give some indication of their individual pure time preference 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.’

The discount rate (currently set at 3.5%) is then used to convert all costs and benefits in the future to ‘present values’ so they can be compared. The net present value figure then becomes the primary criterion for deciding whether government action can be justified.

Impacts on people in other countries are briefly mentioned in the footnote to section 5.25 which states that “All impacts (including costs and benefits, both direct and indirect) on non-UK residents and firms should be identified and quantified separately where it is reasonable to do so, and if such impacts might affect the conclusions of the appraisal. Generally, proposals should not proceed if, despite a net benefit overall, there is a net cost to the UK (for instance, after taking into account environmental costs).”

The Green Book guidance therefore gives considerable scope for addressing environmental justice concerns as part of a distributional analysis, although the emphasis is on the use of adjusted cost-benefit techniques with all of the limitations this entails.

Variants on the use of the Green Book have been developed for particular applications. An interesting and relevant example is the approach used by DEFRA to assess public investment in flood defence. Some adjustment for vulnerability and deprivation is explicitly built into the process for evaluating applications for capital grants for flood and coastal defence. A scoring system is used built up from economic, people and environment parameters. The population parameter reflects total numbers of people at risk from flooding but this is then adjusted using the index of deprivation as an indicator of vulnerability. The score is related to the ranked scale of deprivation by ward. Wards with a less vulnerable ranking have their priority reduced whereas those assumed to be more vulnerable have increased priority for receiving capital grants.

Evaluation of Use
There is surprisingly little evaluation of the use of the Green Book guidance which we have been able to identify. In particular given that distributional analysis was only significantly included in the latest 2003 version it is too early to get a view of what difference this has made.

Some issues around distributional analysis can be gleaned from responses to the consultation pre the 2003 version being finalised.

Two independent think-tanks, the New Local Government Network and the New Policy Institute, called for the government to treat the new green book as the start of an ongoing process through which to raise standards of appraisal and evaluation clarify which agencies
and public and private bodies should treat the Green Book as an important source of guidance for their own investment and resource decisions; *clarify who ultimately determines the overall discount rate to be used, the relevance of distributional issues and weights to a particular project and the way benefits should be valued.*

The Women's Budget Group response to the consultation on the Revised Green Book was also critical of the lack of attention given to gender issues and gender mainstreaming methodologies.

### Population Groups Covered (social, spatial, generational)

Income, gender, ethnic group, age, geographical location, disability are explicitly identified in the guidance. Impacts on people in other countries are also included (but not rated as importantly as impacts in the UK). Impacts on future generations are included through discounting within cost-benefit analysis.

### Website/reference:

**Institution/Govn Department:** ODPM  
**Status:** Binding/best practice  
**Spatial Scale:** Potentially any, although the guidance concentrates on assessment of interventions on a local, regional and national scale.

### General Description

The aim of the guidance is to set out the broad framework within which the assessment of spatially targeted interventions should take place. The drafting recognises the need for flexibility and hence focuses on the broad principals that should be followed rather than defining rigid procedures. The guidance aims to provide advice on assessment techniques that can be applied to policies, programmes and projects in the 3R area and for non-3R interventions that may have such impacts. Regeneration, renewal and regional development (the 3Rs) are interventions that have specific spatial focus and as a result *have distributional impacts*.

The role of this guidance is to *supplement the Green Book* in the general area of spatially focused interventions. According to the ODPM it should be considered binding best practice in the same sense as the Green Book. 3Rs Guidance does not impose any significant additional requirements on the Agencies appraisal and evaluation systems. Instead it provides a commentary on the special characteristics of 3R interventions, highlights aspects of the Green Book which have particular relevance to them, and provides further reference material. The guidance can be used as an input into other assessment tools such as the IPA or RIA procedures.

The guidance has a focus on economic issues but adopts an integrated approach in which economics is both a particular area of focus (e.g. for economic regeneration or regional economic development) and also a way of integrating social and environmental issues within an overall assessment framework. The guidance takes an integrated impact assessment approach.

Pilot applications of the guidance identified a number of issues where the guidance limited guidance in terms of practical solutions. This is true in the case of the application of distributional analysis, in particular, the use of small area data/neighbourhood statistics to design weights for the analysis of distributional impacts.

The 3Rs tend to aim at, or contribute to, the overall goals for sustainable development of target areas and groups, and have the specific objective of improving outcomes in social, economic and environmental terms. Interventions affecting spatial areas can be categorised as:

- Universal Welfare programmes
- Selectively targeted national programmes
- Explicitly area-based initiatives

Various different spatial areas are of interest:

- Regeneration
- Renewal
- Regional development

The range of actors is diverse including private business, voluntary organisations, public-
private partnerships, local partnerships, government agencies and local authorities.

The ODPM guidance assessment framework incorporates 5 steps:

1. definition of the problem: rational, objectives and baselining defining alternative options/actions (including taking account of changes in social, economic and environmental variables under a policy-off scenario (projected trends from the end year of baseline indicators))

2. identifying and measuring inputs (costs) (including a financial and economic analysis:

'A financial analysis will help provide answers to questions concerning specific groups and organisations. It will answer questions such as does the project have a sound business case? Will returns satisfy shareholders? Are cash flows sufficient? It will usually require detail on investments, operating costs and revenues and financing sources, from which most financial analysis can take place.

An economic analysis builds on the financial analysis to answer questions from a social perspective, such as 'does the project represent an effective use of resources for society as a whole?' It will typically involve the recognition of:

- the difference between financial and economic costs (e.g. depreciation, interest);
- differences between market prices and opportunity costs (e.g. assets already in ownership);
- the fact that transfer payments (e.g. Resource Accounting and Budgeting charges) are offsetting at the societal level;
- externalities (e.g. environmental and social costs and benefits).

3. identifying and measuring outputs and outcomes

Ideally outputs and outcomes should be valued in money terms where possible. In the presence of multiple outcomes, valuation is especially desirable as an aid to comparison.

A range of principles needs to be taken into account in valuing typical 3R outcomes. Guidance is provided on principles and evidence relevant to the valuation of impacts related to:
- Time savings, health and the environment;
- Additional employment and economic activity;
- Changes in land values;
- Changes in productivity and competitiveness;
- Distributional changes;
- Social capital;
- Crime prevention/reduction;
- Education/training;
- Heritage and culture impacts.

According to the guidance, where valuation is not possible assessments should identify how best to quantify the impact and to identify priorities among the outcomes. Where preferences can be expressed in terms of weights, guidance on the use of multi-criteria analysis (MCA) decision approaches should be followed.

'Distributional issues: In 3R interventions 'who benefits' is always a very important question and distributional analysis should always be a component of appraisal and evaluation (although this will often only need to be qualitative')

4. result presentation and interpretation

**Specific Requirement/Method for Distributional Analysis**

The guidance states that distributional analysis should always be a component of appraisal and evaluation and provides the following illustration of distributional analysis methods and
example.

**Distributional Analysis methods in the context of regeneration, renewal and regional development:**

Distributional Impact matrices are perhaps the most common form of distributional analysis. These can be as simple tick boxes (see for example the distributional impact matrix developed for the Integrated Policy Appraisal template) identifying whether particular groups over which specific objectives are held (gender, ethnic group, age, disabled, location etc.) are affected and in what way (e.g. positively or negatively). More advanced matrices would identify the impacts, together with weights, which could be applied to facilitate the comparison of options which affect different groups.

Lorenz curves are a specific technique that enables a distribution other than the normal to be identified. Curves can be constructed to display this information graphically; however the information can also be expressed textually.

Distributional concerns extend over issues other than simply differing levels of income. As noted in the Green Book however these concerns are often correlated with income. One particularly useful area of analysis would be in linking the information available in the Index of Multiple Deprivation to help derive weights appropriate for distributional analysis. Such analysis would be useful in a variety of circumstances. However, at present there is no direct way of doing this.

**Distributional issues and the Index of Multiple Deprivation: example**

In appraising the bids for the hosting of the European Capital of Culture in 2008 one of the identified criteria was the extent the bid would contribute towards urban renewal through: planned urban and regional re-development programmes; linking re-development to the city’s current cultural heritage; and in forming partnerships with the Regional Development Agencies. In terms of economic activity, criteria also included the ability of the bid to create new employment and the ability to attract new tourists, both overseas and domestic. The criteria correctly focus on new employment and new tourism activity and hence the importance of additional resources to the area.

One area of analysis which was explored was the extent to which these new resources brought into the cities would benefit deprived communities and the extent to which the levels of deprivation in communities differed. It was quickly recognised that the ability of the new resources to impact on an area depended upon:

- The existing levels of deprivation as measured for example in the Indices of Multiple Deprivation; and
- The ability of the communities to sustain the resources levered in rather than simply leak it out again to other areas.

One area of interest was the extent to which distributional issues could assist in the choice between bids. In particular an attempt was to use the Indices of Multiple Deprivation as a means of applying the distributional weighting analysis recommended by the Green Book. While the indices clearly illustrated differences in the bid areas in terms of levels of deprivation, they do not contain the type of household income data that would facilitate the construction of distributional weights. In addition there is currently no similar source of information that would assist in determining, ex-ante, the extent to which different areas would be able to retain expenditure levered in for longer before eventually being dissipated to other parts of the economy.

Finally it should be noted that distributional weights as identified in the Green Book reflect the value attached to a benefit by its recipient. £1 worth of benefit received by someone on a lower income is worth more than when it is received by someone on a higher income. This is separate from, although related to, the fact that society may attach additional value to the reduction in social inequalities. Where the reduction in social inequalities is also an issue, further sensitivity analysis may be appropriate for example by establishing the switching value that would alter the decision in a particular case. In general the best approach as identified in
the Green Book is to consider in as broad a sense as possible the impacts proposals will have on different groups in society. In the case of other distributional impacts the Green Book provides guidance in the required approaches. This applies in the case of UK discrimination laws and the general approach to considering equality.

**Evaluation of Use**

No evaluation of the implementation of this ODPM Guidance could be identified possible as a result of its very recent development (May 2004)

**Population Groups Covered (social, spatial, generational)**

Any within defined boundaries (spatial and economic)

**Website/reference:**

http://www.odpm.gov.uk/stellent/groups/odpm_about/documents/page/odpm_about_029009-06.hcsp

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**Examples**

We could identify no examples of implementation of the ODPM 3Rs Guidance due to its recent development.
CONSUMER IMPACT ASSESSMENT

<table>
<thead>
<tr>
<th>Institution/Govn Department:</th>
<th>National Consumer Council</th>
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</thead>
<tbody>
<tr>
<td>Status:</td>
<td>Voluntary. Advised to be used by NCC but no statutory obligations in the UK.</td>
</tr>
<tr>
<td>Spatial Scale:</td>
<td>Any scale</td>
</tr>
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</table>

“Consumer policy should be integrated into all EU policies. Every EU policy which might impact directly or indirectly on consumer interests should be subject to 'a consumer impact assessment' to ensure that rights and freedoms are respected”

Conference on The Future of Europe organised by MIC and European Commission, 2001

General Description

Consumer impact assessment is a good practice tool designed by the National Consumer Council (NCC) to help policy-makers and consumer organisations look at policies and practices from a consumer perspective. According to the NCC, carrying out a consumer impact assessment helps to assess whether markets and public services are working in the consumer interest. It enables policy-makers to identify inequities that might arise for more disadvantaged groups of consumers if certain policy options are pursued.

The NCC consumer impact assessment has 10 steps (see below). The first two are exactly the same for regulatory appraisals so require no additional work.

Initial Review
1. Summarise the policy issue and list the objectives of the policy or regulation
2. Identify the options which could meet the objectives
3. Identify and list all the impacts (both positive and negative) on consumers of each option*
4. Decide on the significance of the impacts-if they are insignificant then a full consumer impact assessment may not be necessary
5. Decide what consumer safeguards could be built into each of the options

Full assessment
6. Quantify the costs and benefits to consumers
7. Include assumptions and uncertainties in the calculations
8. Summarise the consumer costs and benefits for each option in a table
9. Present the preferred option and what safeguards should be included
10. Explain how consumer impacts will be monitored and evaluated after the policy is implemented

*Under step 3 the guidance states that the following 8 consumer impacts should be considered and reported. Both positive (benefits) and negative (costs) impacts should be recorded.

- **Value for money** Will it affect the cost to the consumer and the quality of goods and services?
- **Access** Will it affect consumers’ ability of get hold of the goods or services they need or want?
- **Choice** Will it affect consumers’ choice of goods and services?
- **Information** Will it affect the availability of accurate and useful information on the goods or services?
- **Redress** Will it affect consumer’s ability to obtain redress if there is a problem with the goods or services?
- **Safety** Will it have an impact on health and safety standards of goods and services?
- **Fairness** Will it have a differential impact on some individuals or groups of consumers?
- **Representation** Will it affect the consumer’s say in how goods and services are provided?

**Specific Requirement/Method for Distributional Analysis**

NCC guidance outlines the questions that policy-makers should ask and presents an easy-to-follow timetable for the key stages of a consumer impact assessment. Identifying and quantifying the impacts (positive and negative) of a policy or regulation on consumers is central to the CIA. These assessments measure the consequences of the policy/regulation on each consumer/consumer group including the need to consider disadvantaged consumers such as those on a low income. Two case study examples - the green paper on EU consumer protection, and regulation of financial advice - are used in the guide to illustrate how a consumer impact assessment can be used.

**Evaluation of Use**

No evaluation of the implementation of CIAs could be identified, perhaps because they are often used alongside other tools such as the RIA. In fact, the current system of regulatory impact assessment already requires an assessment of the benefits of proposals to consumers, as well as the regulatory costs to businesses and enforcement agencies.

**Population Groups Covered (social, spatial, generational)**

Any consumer or group of consumers

**Website/reference:**


**Examples**

Examples of CIAs which were identified related to power sector reforms in international countries e.g. the Philippines. Despite NCC highlighting the merits of consumer impact assessments, they are not widely employed by regulators in the UK. The NCC guidance includes 2 case studies of recent policies –EU consumer protection (green paper) and regulation of financial advice. The Green paper asks for views on two alternatives designed to harmonise the rules that regulate business-to-consumer commercial practices. The financial services consultation paper demonstrates a number of market failings resulting from the current financial advice system and presents options for change.

**Step 3 example**

**Regulation of financial advice**

**Fairness:** The FSA’s (Financial Services Authority) notion of a ‘second class’ advice service could be unfair to low-income consumers, as it could leave them with a poor quality standard of advice. However, it is a good idea to explore options for a ‘different’ tier of advisor. From the consumer perspective this is the most important issue, but the one the FSA has developed best.

**Step 5 example**

**Green paper on EU consumer protection**

**Fairness:** Ensure that the framework directive targets those traders who prey on the most vulnerable consumers-for example, the elderly, disabled or functionally illiterate. Make sure the tests for unfairness include the vulnerability of consumers.
**TRANSPORT ANALYSIS**

<table>
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<th>Institution/Govn Department:</th>
<th>Department for Transport</th>
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<tbody>
<tr>
<td><strong>Status:</strong></td>
<td>What is termed the ‘new approach’ to transport analysis has evolved since its original launch in 1998, most recently to take account of the latest Green Book recommendations. It is now the basis for:</td>
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<tr>
<td>- appraisal of multi-modal studies;</td>
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<td>- appraisal of Highways Agency road schemes and Local Transport Plans major road and public transport schemes;</td>
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<tr>
<td>- the Strategic Rail Authority's Appraisal Criteria;</td>
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<td>- the project appraisal framework for seaports; and</td>
<td></td>
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<tr>
<td>- the appraisal process employed during the development of the Government's airports strategy</td>
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<tr>
<td><strong>Spatial Scale:</strong></td>
<td>UK and non-UK (impacts may affect non-UK residents). Local to national schemes, strategies and policy.</td>
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**General Description**

Transport appraisal is carried out to provide input to efficient policy development and resource allocation across government. As part of the introduction of integrated transport policy, the White paper introduced the New Approach To Appraisal (NATA), to appraise and inform the prioritisation of transport investment proposals by comprehensive analysis of the impacts using a consistent approach. The core appraisal methodology was first set out in the Guidance on the Methodology of Multi-Modal Studies (GOMMMS) and is now fully incorporated into Transport Analysis Guidance (TAG).

The appraisal framework in NATA is made up of four distinct parts:

- **Appraisal Summary Table (AST)** (achievement of Government objectives of environment, safety, economy, accessibility and integration): This is a one page tabular summary of the main economic, environmental and social impacts of a transport solution.

- **Achievement of regional and local objectives**: An assessment of the degree to which the local and regional objectives of the project will be achieved.

- **Effectiveness of problem solving**: An assessment of the extent to which the problems identified would be solved by the option or options proposed.

- **Supporting analyses** cover three groups of issues that do not easily fit within the AST:
  - **distribution and equity** which aims to show the distribution (spatially, across modes, etc.) of the impacts of the solution, thus enabling an assessment to be made about the fairness of impacts on those affected;
  - **affordability and financial sustainability** which aims to outline the financial performance of the solution, identifying public and private sector input; and
  - **practicality and public acceptability** which follows a checklist that includes such measures as feasibility, area of interest, complexity, time scale, phasing, and political nature of solution.

(Since the publication of TAG (formerly GOMMMS) in March 2000, an additional supporting analysis to assess impacts on 10 Year Plan targets has been specified for multi-modal studies, as explained in Supporting Analysis TAG Unit 3.8.)

To enable a consistent judgement to be made of the relative merits of options a single summary sheet of each of the four analyses is produced for each strategy or plan option. Single sheet information is also provided to decision-makers on each of the following:

- An annotated map describing the strategy or plan option
- A list of the alternatives considered and their reasons for rejection (if this information cannot be fitted onto the previous sheet)
In addition there will also be worksheets for each sub-objective on the AST.

The NATA is a form of multi-criteria analysis. All of the impacts of a transport intervention are brought together in the AST and supporting analyses. Those impacts that can be monetised are presented in monetary terms as well as in quantitative terms, but no other weighting information is provided. Decision takers must apply their judgement, taking account of the views of stakeholders determined through participation, to weigh up the impacts to reach an assessment of the overall value for money of the proposal.

### Specific Requirement/Method for Distributional Analysis

**Distributional issues**

Analysis of distribution and equity, other than in relation to income groups, has not been included in the initial NATA appraisal framework. Until recently, the adjustment of benefits to reflect the impact of proposals on different income groups has been limited to time savings. Since the 1960s, a standard or 'equity' value of non-work time savings has been used to value in-vehicle time savings for all locations, modes, incomes and non-work journey purposes. This standard value is a mileage-weighted average. Thus, although it provides some distributional weighting, it is not a social weighting scheme as recommended in the Green Book. The DfT is now planning to carry out a review and revision of the treatment of distributional issues in transport appraisal. Until that is completed, it has been suggested that the approaches recommended in GOMMMS (Guidance on the methodology for multi-modal studies) and its daughter documents should be used. These are outlined below.

The DfT is now keen to see a wide range of other distributional issues considered in a consistent manner. Guidance on the NATA requires the core Appraisal Summary Table to be supported by an analysis of ‘distribution and equity’ (see below). This more comprehensive approach enables the inclusion of analysis across dimensions other than income, such as between regions, between rural and urban areas, by gender, by race and so on.

In addition, for transport economic efficiency impacts and impacts on public accounts, the NATA requires the results to be presented in a format which provides information on the distribution of costs and benefits across different economic interest groups. The information in the Transport Economic Efficiency table makes clear how a project impacts on the members of different economic interest groups, such as transport users and public sector transport providers. Similarly, financial and non-financial impacts can be readily distinguished from one another. The guidance states that the latter kind of disaggregation is particularly important when projects are sponsored or co-sponsored by private sector firms, or by public sector agencies which are expected to act in a quasi-commercial way (that is, to have regard to their own financial balance sheets). The information in the Public Accounts table shows whether costs (including grant and subsidy) and revenues affect central or local government, and the impact of proposals on indirect tax revenues. Note, however, that most of the impacts shown in these tables are 'first round' effects that may be transferred to other economic interest groups in the longer term. For example, time savings may lead to increases in rents and hence transfer benefits from travellers to landlords.

### The Appraisal Summary Table

The Appraisal Summary Table provides the framework for assessing the impact of a particular strategy or plan on objectives for social inclusion. The Qualitative Impacts column on the AST may be used to highlight for particular sub-objectives the effects on different social groups. The supporting analyses of distribution and equity may be useful in assessing what these particular impacts are. Where specific social inclusion objectives are identified in a particular study, the assessment of the achievement of local and regional also provides a vehicle for highlighting the impacts of a particular options on social inclusion.

### The Distribution and Equity Supporting Analysis

This Supporting Analysis is designed to show the distribution of the overall impacts summarised in the AST, thereby enabling a judgement to be made about the fairness of the impacts across those affected by the strategy or plan.
The main determinants of the distributional analyses that can be undertaken will be:

- the spatial basis for the transport model and the degree of segmentation of the travel demand within the model; and
- the geographical relationship between the interventions making up the strategy or plan and factors which have a geographical position, such as the population, designated areas, water resources, etc.

The TAG Unit guidance (www.webtag.org.uk) provides examples of the kinds of distributional analysis which could be carried out and ought to be considered under each of the sub-objectives in the AST for which distributional analyses are appropriate. Key sections are reproduced below:

- ‘Noise and local air quality are related to traffic. Thus, the geographical distribution of noise and air quality can be displayed at the level of detail at which traffic information is output from the transport model. A GIS is a useful tool for relating changes in noise and air quality to factors such as population, sensitive areas, and so on’

- The transport economic efficiency worksheet provides a breakdown of the Present Values of Costs and Benefits against the following recipients of costs and benefits/disbenefits:
  - personal travellers by mode (car, bus and coach, rail, walk/cycle, other);
  - personal travellers by purpose (business, consumer);
  - freight (road, rail, other); and
  - transport system operators (road, rail, bus and coach, other).

- In some cases a significant proportion of the impacts summarised on the AST will fall on non-UK residents. For example, non-UK residents may derive a significant proportion of the user benefits resulting from a public transport scheme providing access to an airport or seaport. In cases where a significant proportion of a scheme’s impacts fall on non-UK residents it is important that the Distribution and Equity supporting analyses include a section that separately identifies the impacts on UK and non-UK residents.

- Given that the aim of some elements of a strategy or plan may be to stimulate economic regeneration in specific areas, the distribution of the wider economic impacts in this sense will be implicit in the analysis which underlies the entry into the AST.

- Analyses of access to the transport system are undertaken on a spatial basis, against the background of car ownership. This analysis therefore provides useful information about the distribution and fairness of an option’s impacts.

Whilst this general guidance is available, detailed guidance on how to undertake distributional analysis is yet to be made available on the website.

**Evaluation of Use**

The Department for Transport (DfT) commissioned AEA Technology, ITS Leeds and John Bates Services to evaluate the effectiveness of the Multi-Modal Study process. The evaluation examined the 21 ongoing or completed Multi-Modal Studies to establish the effectiveness of the MMS process in delivering integrated and robust transport strategies assessed in accordance with the GOMMMS methodology. Their overall conclusions on appraisal are that the GOMMMS advice is fit for purpose. However, they suggested that further work could be done to develop the advice on sustainability, social inclusion and regeneration. In their report ‘Modelling and Appraisal’ Bates et al. (2004) ‘economic regeneration and social inclusion are important topics where the GOMMMS guidance is relatively weak and capable of improvement’.

The Commission for Integrated Transport (CfIT) is currently conducting a review of transport appraisal methods. The review covers the main NATA (New Approach To Appraisal) documents and other relevant documents relating to assessment.
In February 2004, CfIT held a seminar on transport appraisal methods, with key stakeholders expressing their opinion on where value can be added to the existing system. The seminar examined the role of appraisal in decision making, identified weaknesses and gaps in the context of informing decisions, and identified how appraisal could be improved. Following the seminar, CfIT is in the process of producing a short report setting out a strategy to enhance appraisal procedures to better meet the needs of decision makers.

Walton and Shaw (2003) have examined how the new appraisal approach has been applied at the local level in the formulation of the first Local Transport Strategy (LTS) for Aberdeen in north east Scotland and assesses the effectiveness of NATA (and its Scottish equivalent NAM) at promoting the delivery of genuinely integrated and sustainable local transport strategies. Sayers et al. (2003) suggest that although NATA has made progress towards a more inclusive approach, it lacks guidance to decision-takers as to how the multi-criteria information about alternative projects should be used to identify the preferred option. This could lead to a lack of clarity, consistency and accountability in a crucial part of the decision-taking process.

No evaluation was found focusing specifically on distributional issues within NATA.

<table>
<thead>
<tr>
<th>Population Groups Covered (social, spatial, generational)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAG Guidance advises ‘the inclusion of distributional analysis across dimensions other than income, such as between regions, between rural and urban areas, by gender, by race and so on’. Non UK residents are also included as noted above. The use of discount rates makes some potential provision for intergenerational distribution.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Website/reference:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Transport Analysis <a href="http://www.webtag.org.uk/webdocuments/1_Overview/1_Introduction_to_Transport_analysis/index.htm">http://www.webtag.org.uk/webdocuments/1_Overview/1_Introduction_to_Transport_analysis/index.htm</a></td>
</tr>
<tr>
<td>Overall Approach Steps <a href="http://www.webtag.org.uk/webdocuments/2_Project_Manager/1_Overall_Approach_Steps/index.htm">http://www.webtag.org.uk/webdocuments/2_Project_Manager/1_Overall_Approach_Steps/index.htm</a></td>
</tr>
<tr>
<td>Appraisal <a href="http://www.webtag.org.uk/webdocuments/3_Expert/2_Appraisal/index.htm">http://www.webtag.org.uk/webdocuments/3_Expert/2_Appraisal/index.htm</a></td>
</tr>
<tr>
<td>Transport Appraisal and the New Green Book <a href="http://www.webtag.org.uk/webdocuments/2_Project_Manager/7_Transport_Appraisal_Green_Book/2.7.1.htm#1_9">http://www.webtag.org.uk/webdocuments/2_Project_Manager/7_Transport_Appraisal_Green_Book/2.7.1.htm#1_9</a></td>
</tr>
<tr>
<td>Guidance on the methodology for multi-modal studies (Vol 1) <a href="http://www.dft.gov.uk/stellent/groups/dft_transstrat/documents/page/dft_transstrat_503873-06.hcsp#P840_168081">http://www.dft.gov.uk/stellent/groups/dft_transstrat/documents/page/dft_transstrat_503873-06.hcsp#P840_168081</a></td>
</tr>
</tbody>
</table>

Examples

The Bristol Transport Plan 2001/2-2005/6 has been appraised using NATA and the guidance on the Methodology for Multi-Modal Studies (now TAG) (http://www.bristol-city.gov.uk/traffic/pdf/itt_pol_ltp_app10.pdf). This includes AST tables and supporting analyses. Distribution and equity is addressed as follows:

Distribution and Equity

Through significantly enhancing transport choices, overall accessibility to the transport network is increased by the proposals in the plan. The BRITES study assessed changes in accessibility levels across the study area, both for car and public transport, broken down into work and shopping trips. Although the plan proposals show some worsening of car accessibility, this is also shown in the do-minimum with the forecast levels of traffic growth. Public transport accessibility, particularly to the main development areas for employment, show improvements, in many cases substantial, and this more than compensates for other decreases in accessibility. This can be described by the situation in the central area, where, although forecast car trips decrease compared to the do-minimum, trips by other modes increase by a greater amount, leading to a 20% increase in total trips to the central area, supporting the economic vitality of the centre, and showing the overall increase in accessibility.

The detailed impacts of potential road user charging schemes has been assessed through the Traffic Restraint Study, commissioned in association with the DETR, and this analysed impacts against various transport users and trip purposes as specified in GOMMS, and further copies of this can be supplied as required. Overall 34% of households in Bristol do not have access to a car, though this figure is very much higher in the more deprived areas of the city. The significant enhancement in public transport provision afforded by road user charging is aimed at addressing transport problems both in these areas, and for households where car ownership is marginal, and a disproportionate amount of disposable income is used on car travel, because the public transport choices are not available.

Assessment of Social Inclusion

The pattern of low car ownership in areas of social exclusion and the pressures that congestion and reliance on the private car is placing on current public transport provision, exacerbate the problems of social exclusion. Lack of access to public transport is a major problem for people seeking employment, and the increase in accessibility afforded by the proposals in the plan will significantly benefit areas of social exclusion, and particular groups also affected.

In comparison, the appraisal of the Peterborough Local Transport Plan includes much less information within the Supporting Analysis and does not mention specific social groups:

Distribution and Equity

Central to the LTP is the concept of striking a balance between the priorities of different interest groups. The aspiration is that all groups should be able to benefit from the central thrust of this LTP, namely the focus on widening travel choice and improving safety. Whilst overall certain groups will benefit from individual work programmes, the key aim is one of improving travel for all. As such, fairness is integral within the LTP. Those groups that for one reason or another experience difficulties travelling will certainly experience easier travel following this LTP.
SUSTAINABILITY APPRAISAL

<table>
<thead>
<tr>
<th>Institution/Govn Department:</th>
<th>ODPM, local and regional planning authorities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status:</td>
<td>Recommended by ODPM to be used on regional and local plans</td>
</tr>
<tr>
<td>Spatial Scale:</td>
<td>Regional and local</td>
</tr>
</tbody>
</table>

General Description

Sustainability appraisal has largely taken place in the UK on local development plans and regional plans and emerged out of earlier experience with the environmental appraisal of development plans (by 2001 91% of authorities responding to a survey had completed at least one such appraisal; Therivel and Minas 2002). Sustainability appraisal is now providing the framework within which the Strategic Environmental Assessment Directive is being implemented in the UK (see SEA table).

Sustainability appraisal is defined within DETR (2000) as ‘a systematic and iterative process undertaken during the preparation of a plan or strategy, which identifies and reports on the extent to which the implementation of the plan or strategy would achieve the environmental, economic and social objectives by which sustainable development can be defined, in order that the performance of the strategy and policies is improved’.

A sustainability appraisal is ‘intended to test the performance of a plan and thereby to provide the basis for its improvement’ and to expose ‘the conflicts within, and likely impacts of, a plan or strategy in order to inform the plan or strategy making process’.

Specific Requirement/Method for Distributional Analysis

Distributional analysis is recognised as relevant to sustainability appraisal and in DETR (2000) there are two paragraphs which relate to this under the heading ‘who benefits’ (note this orientation rather than who suffers). The guidance reproduced in full notes that the appraisal process does not explicitly deal with distributional questions, but that it might be relevant in some situations. This does not therefore help ensure that distributional impacts are routinely considered and the guidance suggests a ‘commentary’ will be adequate rather than a more detailed analysis.

Para 3.4 The question of ‘who benefits?’ can be an important basis for any evaluation. The appraisal process set out for RPG does not address this question in detail. However, there may be situations where some disaggregation of impacts by different groups would be appropriate, particularly where there are conflicts to be resolved. Such a disaggregation might include, for example, residents, employees, employers, unemployed, tourists, young people, the elderly, and non-car owning households (as a proxy for the socially excluded).

Para 3.5 How such an element of appraisal would be done would vary with the required level of detail, the availability of relevant data, and the geographical specificity of the matters being appraised. The most likely approach is a commentary on both short and longer term impacts, in so far as they can be estimated, for each chosen group.

However the recommended matrix framework used in the DTER guidance for recording the appraisal has an entry within the ‘social progress which meets the needs of everyone’ heading which is intended to assess the plan against the objective:

‘To reduce disparities in income, and access to jobs, housing, and services between areas within the region and between segments of the population’

This suggests that distributional questions should be more central despite the guidance noted above.

Evaluation of Use
The use of sustainability appraisal for development plans has been evaluated in a number of studies (Therivel and Minas 2002, Short et al 2004, Benson and Jordan 2004). Such evaluation has found that generally sustainability appraisal has been well received by those using it, but the impact on the final plan objectives and policies was rarely substantial and practice in using sustainability principles with the appraisals is highly variable.

Evaluation research has not focused on the distributional elements of appraisals. George (2001) assesses the appraisal guidance against a definition of sustainable development which includes several equity elements. However, this analysis argues that disaggregated social analysis should be part of the planning process, rather than the appraisal of it and remains at a conceptual level rather than examining what has been taking place in practice.

**Population Groups Covered (social, spatial, generational)**

The DETR guidance refers to unemployed, young people, the elderly, and non-car owning households (as a proxy for the socially excluded).

**Website/reference:**


INTEGRATED POLICY APPRAISAL

<table>
<thead>
<tr>
<th>Institution/Govn Department:</th>
<th>Cross Government but led by DEFRA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status:</td>
<td>Guidance, a ‘good practice tool’ which has so far progressed only to the pilot stage</td>
</tr>
<tr>
<td>Spatial Scale:</td>
<td>National or regional policies</td>
</tr>
</tbody>
</table>

**General Description**

IPA it is claimed can contribute ‘both to better policy making and sustainable development’. By being inclusive and ensuring that all the potentially significant impacts of a policy proposal are addressed at the same time. Integrated Policy Appraisal (IPA) is intended to link together a number of existing appraisal requirements and commitments which would otherwise need to be carried out separately, rather than replace these requirements and tools.

The IPA tool was originally developed by DETR and subsequently by DTLR and Defra, in association with DH to deliver the Modernising Government White Paper commitment on integrated appraisal.

The IPA consists of two stages which are carried out at different times during the policy-making process, which allow the impacts to be identified, assessed and then summarised - and which effectively “sandwich” the carrying out of specific appraisals.

The first - “screening” - stage involves a brainstorming of the questions set out in the IPA to map out the potentially significant impacts of the proposal or the proposal options, and identify which specific appraisals or impact assessments need to be carried out.

Once this initial stage has been completed the necessary assessments/appraisals (e.g. HIA, RIA, EA) would be carried out. The type of assessments used will depend on what the potential impacts were identified at the screening stage.

The second stage of the IPA involves summarising the results of these specific appraisals and/or impact assessments as a basis for informing decision-making. Quantitative analysis is preferred but can be integrated with qualitative assessment.

**Specific Requirement/Method for Distributional Analysis**

Distributional dimensions figure in the overall description of what IPA is: ‘IPA provides a framework within which the economic, social and environmental impacts of policy options and their distributional effects in relation to different groups of people (e.g. the elderly, those on a low income) can be assessed’.

The original DTLR screening check list used at stage 1 of the IPA prompts for qualitative and quantitative assessments in 13 areas, including air quality, landscape, biodiversity and noise. On a separate table it then asks for a description (quantified if possible) of distributional impacts in respect of ‘deprivation and income groups, age, gender, disability, race, regions and localities, rural areas, small firms, other groups’. The guidance here states that ‘Policy making involves considering not only the overall impacts of a policy or project, but also how the impacts will vary across different groups of people. Few policies affect everyone equally. So a similar evidence-gathering process as before should be gone through for the distributional categories on the final page of the tables’.

Supplementary guidance produced by DTLR goes into far more detail for each of the impact areas and population groups. Under the guidance on distributional impacts references are made to impact assessment tools such as HIA and GIA. Many examples are included in this guidance but few directly address environmental justice concerns e.g. under air quality there is no mention of possible distributional impacts, and under the guidance related to each population group there is no mention of air quality as an impact that could be distributed differentially.
A later DEFRA version of the screening checklist includes more prompts on the distributional table itself - in the form of a series of questions under each population grouping. Questions here include the extent of consultation undertaken and measures taken to redress impacts.

There is therefore a framework across the two tables for addressing EJ concerns, if the two elements (impacts and distribution) are fully carried out and effectively integrated.

**Evaluation of Use**

The IPA was first piloted by Defra and DTLR as part of Spending Review 2002. Directorates were asked to complete an IPA in order to provide sufficient information about how their policy or programme proposals would impact on sustainable development - to help fulfil Treasury requirements for departments to produce a Sustainable Development Report - and to improve the proposals themselves.

A more substantial cross government pilot was then carried out involving the following 13 policy proposals in 7 different government departments:

**DEFRA**
- Impact of EU Animal By-Products Regulation on the disposal of catering waste
- England Rural Development Programme
- Animal Disease Levy

**DoH**
- Free Fruit For Schools

**DTI**
- Energy White Paper

**DfT**
- Airport Development Options
- Sulphur-Free Fuels
- Street and Highway Works

**Lord Chancellor’s Department**
- Mental Incapacity Bill

**MoD**
- The Strategic Defence Review (SDR): A New Chapter

**ODPM**
- Liveability Fund
- High Hedges Bill

**Government Office - North East**
- Draft Regional Housing Strategy

The pilot evaluation report published in 2004 (but finished in 2003) found that while the IPA had the potential to support better policy making, some key issues would need to be resolved if it were to be used more widely:

- it would require a proactive cross-Whitehall owner, ideally the Cabinet Office or Treasury;
- it would require a support function within each department;
- the relationship with other appraisal tools and particularly the Regulatory Impact Assessment tool (RIA) would need to be clarified;
- Ministerial support would be required.

Some general and largely positive conclusions of the evaluation included:

- Most people taking part in the pilot found the tool useful and user friendly
- It made policy makers more aware of the range of appraisal requirements that exist
- IPA could reveal the wider impacts on sustainability of a policy.
- IPA can support the open government agenda and sustainable development principles through improving the transparency of policy making.
- IPA has its greatest potential if used early in the policy process.
• Policy makers generally found that, where they had completed an RIA and IPA on the same policy, the latter revealed much broader impacts than the former.

However, in the following comments regarding sustainability the report is more cautious about the impact that IPC could in practice have:

‘The IPA alone is unlikely to cause a radical change in the level of sustainability of all of Whitehall’s policy proposals in the absence of a strong commitment to sustainability, and a better understanding of the relevance of sustainable development and what it means for all Departments’

‘The IPA is a tool to help informed decision making (though appraisal and consideration of all the impacts) and its utility will be greatest where decision makers are both committed to taking account of all the impacts (not just those that relate directly to the primary aim of the policy) and to taking proper account of the evidence’

Specifically on distributional analysis a positive evaluation is first made:

‘The areas of impact that policy makers observed that they might otherwise have missed (without the IPA), or considered only in passing were generally social issues (particularly areas like gender, race, age, disability, though crime was also mentioned frequently).’ (para 10)

Some problems are then however identified:

‘The distributional impacts section of the IPA does not contain any detailed questions, and probably as a result of this, policy makers consideration of these issues tended to be superficial and there appeared to be a tendency for the pilots to decide that there were no impacts even if, on being prompted, they recognised that there might be.’ (para 33)

The revised DEFRA version of the checklist is then referred to as an improvement, particularly in relation to the prompts this provides on distributional analysis. The report states that ‘there seems no reason why the IPA should treat distributional impacts differently to the other impacts (as it does currently)’ (para 34)

**Population Groups Covered (social, spatial, generational)**

Explicitly identified in the framework are: Deprivation and income groups, age, gender, disability, race, regions and localities, rural areas, small firms, other groups

There is no explicit prompt to consider people in other countries. Future generations could be covered by the prompt in the guidance to consider different impacts over time, but generational timescales are not explicitly referred to.

**Website/reference:**

General website on IPA

IPA Pilot Assessment (Etheridge 2003)
http://www.sustainable-development.gov.uk/sdig/integrating/12a.htm

Evaluation report: IPA pilot applied to the Draft Regional Housing Strategy (north east of England)

**Example: Draft Regional Housing Strategy**
Within the GONE evaluation report the evaluation of the IPA of the Draft Regional Housing Strategy is outlined (see above for reference)

This includes the tables below as an example of a description of distributional impacts.

<table>
<thead>
<tr>
<th>Distributional impacts</th>
<th>Description of differential impacts across groups (quantified where possible)</th>
</tr>
</thead>
</table>
| Deprivation and income groups: | There will be a reduction in the numbers of privately rented houses at the cheap end of the market, affecting people “at the bottom of the pile” without resources. (However the strategy document suggests that there is currently overprovision of these).
Redundant stock is usually for lower income groups. The strategy has made use of the CURS report which factored in this effect.
Choice of housing will perhaps be more limited for poor people, who might have different choices rather than more choice. There will be more choice for the better off.
Health and safety are affected for people on low incomes.
Access to and availability of community activities affects people who are deprived or on low incomes. |
| Age: | As the older housing stock is replaced by more suitable new stock, this could increase the number of lifetime homes, so that older people will not have to move. Increased fuel efficiency in new homes will also benefit older people financially as well as in health.
Better choice might also benefit younger people, who might not feel they have to move out of the area.
Information needs to be disseminated to address the fears of older people.
The health and safety of both old and young groups are affected.
Access to NHS services is particularly important to the old and the young.
Housing’s impact on crime is particularly relevant for families and young people.
Fear of crime, which might be exacerbated by housing conditions, especially affects older people, or those in supported living arrangements. |
<table>
<thead>
<tr>
<th><strong>Access to and availability of community activities affects the old and the young</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Availability of suitable affordable homes is particularly important for older people affected by a spiral of downward house prices</strong></td>
</tr>
<tr>
<td><strong>Provision of a stable environment affects particularly families with young children or other dependents.</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Gender:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Disability:</strong></td>
</tr>
<tr>
<td>Newer housing should provide more appropriate living accommodation (including lifetime homes for disabled people).</td>
</tr>
<tr>
<td>Increased fuel efficiency in new homes will also benefit disabled people financially as well as in health.</td>
</tr>
<tr>
<td>Information needs to be available in a large variety of formats.</td>
</tr>
<tr>
<td>Health and safety are affected.</td>
</tr>
<tr>
<td>Access to NHS services is particularly important to people with chronic conditions or who are unable to transport themselves easily to services.</td>
</tr>
<tr>
<td>It is crucial for people with disabilities to have suitable housing close accessible to their work if they are to remain economically active.</td>
</tr>
<tr>
<td>Access to and availability of community activities affects people with disabilities.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Race:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Information needs to be available in a large number of languages.</td>
</tr>
<tr>
<td>Access to and availability of community activities affects minority ethnic groups.</td>
</tr>
<tr>
<td>Re-location of groups of people in one ethnic group needs to take into account social networks.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Regions and localities:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>There will be more impact on urban areas, where there is more housing to be demolished and rebuilt.</td>
</tr>
<tr>
<td>There might be tensions between plans that are developed regionally but implemented locally.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Rural areas:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The issue of affordable housing in rural areas must be linked with transport, schools and infrastructure as a whole. For example rural children’s centres are being set up with integrated access to nursery facilities, speech</td>
</tr>
</tbody>
</table>
therapy, etc. The location of these centres has been decided on current housing patterns and must be taken into account in planning re-location.

Small firms:
Building firms and associated contractors should benefit. Also housing Agencies.

It is important to build in business attraction.
Part of the social infrastructure in poor areas includes small businesses and social enterprise, which are often on the margins of economic viability. If careful plans to sustain these organizations are not made they will be lost and reduce the overall capacity of the community.

Other effects that vary across different groups:
Health and safety of single parents are affected.

Access to and availability of community activities affects single parents.

Housing provision especially affects people who do not have access to information outside their community.

Vulnerable groups: the strategy refers to the needs of vulnerable groups, but is not clear about how the housing strategy will ensure that plans will address the diverse needs represented by those requiring supported living arrangements, including people with mental illness, learning disability, teenage parents, young people leaving the looked after system, homeless young people etc.

Example: Energy White Paper
An IPA and RIA were provided for the Energy White Paper in Annex 3. The section headed ‘issues of equity and fairness’ is very limited in its conception, referring only to regional and fuel poverty dimensions and misses the equity implications of issues that addressed elsewhere in the RIA (such as climate change, air quality noise). The text read as follows:

2.3 This policy applies to the whole of the UK, and where appropriate, is implemented by the Devolved Administrations of Scotland, Wales and Northern Ireland under their own governance. The policy pays particular attention to the needs of the fuel poor. In general it proposes mechanisms such as emissions trading which allow a market based approach to implementation. The summary table at the end of this annex provides more detail of expected impacts on equity and fairness.

The summary table is reproduced below.
### Distributional impacts

<table>
<thead>
<tr>
<th>Description of differential impacts across groups (quantified where possible)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Distribution and income groups:</strong></td>
</tr>
<tr>
<td><strong>Age:</strong></td>
</tr>
<tr>
<td><strong>Gender:</strong></td>
</tr>
<tr>
<td><strong>Disability:</strong></td>
</tr>
<tr>
<td><strong>Race:</strong></td>
</tr>
<tr>
<td><strong>Regions and localities:</strong></td>
</tr>
<tr>
<td><strong>Rural areas:</strong></td>
</tr>
<tr>
<td><strong>Small firms:</strong></td>
</tr>
<tr>
<td><strong>Other effects that vary across different groups:</strong></td>
</tr>
</tbody>
</table>
## INTEGRATED APPRAISAL (Environment Agency)

### Institution/Govn Department: Environment Agency

**Status:** Different versions of IA developed and piloted within EA, not routinely applied.

Guidance to EA on its statutory objectives includes gaining understanding of interactions between environmental practice and social and economic factors. Enables and pushes towards integrated appraisal.

**Spatial Scale:** Potentially applied with the EA at different spatial scales (national policy, regional (catchment), local, project)

### General Description

A simple integrated approach to policy appraisal for use with the Environment Agency was developed using a checklist approach and published in the form of draft guidance. This had the aim of bringing together the appraisal of environmental, social, economic and resource impacts of identified policy options. The intention was to produce a flexible and realistic tool which took account of resource constraints and uncertainties in predicting directions and degrees of future change. It is based on a simple ‘policy vetting’ approach (Pollard and Brookes 2001)

An EA research report (Eales 2003) reviewed integrated appraisal methods and recommended that the EA further develop and articulate its appraisal approach and the process for using this, concentrated initially at a policy level. A general framework for IA was developed within the project and a two stage process recommended. It is stressed that the end objective should be to achieve integrated decision making informed by integrated appraisal.

### Specific Requirement/Method for Distributional Analysis

The first draft guidance checklist does not explicitly address distributional analysis by social variables, but various of the checklist questions asked do address some aspects or could be interpreted as requiring or enabling equity analysis. For example:

- ‘Describe the risks, and rate the consequence and likelihood for civil society (individuals/communities)’
- ‘Consider where possible impacts for future generations, the duration and reversibility of impacts’
- ‘To what extent will the policy affect the opportunities available to individuals (equal opportunities, reducing the level of social exclusion, increasing involvement in local democracy)?’
- ‘Please indicate the distribution of costs and benefits – whether they impact on the environment, groups in society, individuals, operators and business and the Agency’

### Population Groups Covered (social, spatial, generational)

Only future generations are explicitly mentioned in the checklist.

### Website/reference:
