



**PROJECT REPORT PR/SE/474/02**

**ANALYSIS OF BASELINE DATA REQUIREMENTS FOR THE SEA  
DIRECTIVE – FINAL REPORT**

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**Prepared for: Client: South West Regional Assembly  
(Clare Brooke)**

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## EXECUTIVE SUMMARY

Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment (the Strategic Environmental Assessment (SEA) Directive) should be incorporated into UK law by 21<sup>st</sup> July 2004. Article 1 of the Directive sets out the objective as being to “...provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development...”. In delivering this objective, competent authorities will be required to conduct environmental assessment of plans and programmes (but not policies) where the plans and programmes are from particular sectors or otherwise those which have significant environmental effects, and set the framework for future development consent of EIA projects or which require an appropriate assessment under the provisions of the Habitats Directive.

While there is widespread experience of project-level Environmental Impact Assessment (EIA) and growing application of Sustainability Appraisal (SA) to regional planning guidance and development plans the SEA Directive introduces a new set of requirements and challenges. Fundamentally, SEA requires that those significant environmental impacts arising from the plans or programmes are assessed, mitigated, communicated to decision-makers, monitored and that opportunities for public involvement are provided.

In response to some of these issues, the South West Regional Assembly<sup>1</sup> with funding by the English Regions Network and the Environment Agency has commenced an investigation into SEA implementation and its potential effectiveness. As the first phase of this investigation, this study examined the baseline data requirements for SEA as well as issues of data availability in the South West Region in order to advise on the practical implications for future plans and programmes.

For plan/programme-making authorities among the important questions are what data, how much data and how should they be used in order to carry out SEA? These questions may be contrasted with knowledge of the detailed data requirements of EIA and/or experience of the very limited data assembly needs of SA, neither of which is likely to provide an appropriate model for SEA.

Guidance and practice in the environmental and sustainability appraisal of plans favours an objectives and indicators-led approach where the assessment concentrates on key indicators as a proxy for the totality of the effects of the plan. This approach helps to simplify the potentially almost endless task of

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<sup>1</sup> The South West Regional Assembly coordinates a Project Management Group comprising of representatives from Devon County Council, Somerset County Council, the DTLR and the Environment Agency.

impact identification and prediction at the strategic level to a consistent set of issues but does rely upon careful consideration of objectives and robust selection of indicators.

An alternative approach, which is potentially more demanding of data, seeks the comprehensive consideration and assessment of all significant effects in a similar manner to EIA but adjusted to the uncertainties associated with strategic level assessments. Within this perspective, the choice of assessment method is expected to have a strong bearing on data needs.

While it is not for this report to examine the choice of assessment methods, there are several key principles that should be considered in relation to data assembly for SEA:

- a) **Clear Objectives:** Data assembly should be driven by a clear understanding of the objective of the exercise, placing reliance upon a highly discriminatory approach to what environmental information is required at particular levels of detail.
- b) **Integrated with Stakeholder Consultations:** The approach to data assembly and public/stakeholder consultation should not be seen as separate exercises.
- c) **Balance:** Seeking to balance the needs for information with the practicalities of data assembly reflecting the level of descriptive information on the measures and strategies and the geographic scales of the study areas, notwithstanding the overarching need to assess all significant effects.
- d) **Study Area:** The study area needs careful definition as effects may extend beyond the immediate plan/programme extent.
- e) **Heterogeneous Approach to Detail:** Some areas of the study are may need to be addressed at an area wide level of detail while others may need greater level of detail on a specific topic.

In response to point e), the following three-tier classification is proposed to help to characterise the plans and programmes and the data requirements associated with the types of proposals that they would normally contain:

- a) **Policy-orientated** – overarching data baseline data for considering proposals that are not location-specific (e.g. Regional Planning Guidance);
- b) **Area-wide** - broad characterisation of the entire study area to consider location-specific proposals within a wide geographic extent (e.g. Tourism plans);
- c) **Specific Zones** – where more detailed assessment may be required to consider local proposals (e.g. corridors within Local Transport Plans). These proposals may be identifiable as projects which, if they proceed, will subsequently require project level EIA.

With the large numbers of plans and programmes potentially coming within the scope of the SEA Directive, in order to focus consideration on the SEA data needs, a total of 25 plans and programmes were examined during this study. General issues highlighted through the analysis of the selected plans and programmes comprise nesting and tiering, as well as time horizons and assessment years.

Nesting refers to strategic plans and programmes that contribute to other plans, rather than different levels of the idealised planning hierarchy from policies to plans, programmes and finally projects (tiering). Nesting is particularly important for spatial plans which are fed by and provide a spatial expression of other plans including non-statutory plans. Local authority land use plans are a good example of plans that may have other plans or strategies nested within them (e.g. Rights of Way Improvement Plans, Footpath Plans, Community Strategies and Community Care Plans). However, whether a plan or programme is nested (or tiered) in relation to another will not always be clear and may vary between authorities. For example, some may view the development plan as the planning component of the Community Strategy while in others the Community Strategy may be nested within the development plan.

Different plans and programme types will also have different time horizons associated with them (e.g. 20 years for Regional Planning Guidance). These variations will to some extent dictate the assessment years to be covered in the SEA, (i.e. helping to define the point(s) at which future baseline scenarios and prediction of effects will be needed). Furthermore, some may be tied to particular review cycles (e.g. Annual reviews and five yearly revisions for Local Transport Plans) whereas others may be reviewed on an “as needed” basis.

Consultation with SEA/SA practitioners highlighted the following additional issues in light of experience in SEAs/SAs to date:

- a) Availability of appropriate data sets is a concern because often datasets are not regularly updated. This was attributed to lack of resources in some cases;
- b) Specific dataset gaps are in relation to up to date social, health and economic topics (e.g. reliance on 10+ year old census data);
- c) ‘Lack of political will’ to generate guidance and push for good practice in SA and SEA was a concern amongst a wide variety of practitioners;
- d) In some cases the scope of SA objectives are biased towards topics which the practitioner is aware of data available;
- e) Cases of political bias in SA were reported (e.g. where the scope of the appraisal was steered to avoid having reported negative effects as a result of certain plan/programme measures).

This study investigated the availability of datasets for undertaking plan/programme SEA including consultation with data providers in the South West Region. The datasets themselves were not obtained or reviewed, rather the objective was to compile metadata in relation to datasets of potential use in plan/programme SEA in the South West as a starting point from which a comprehensive database can be assembled and updated. Metadata databases and data sharing initiatives were identified alongside more than 160 individual datasets.

The following tentative comments can be made regarding data availability for SEA in the South West:

- a) **Data availability and coverage is improving.** This may be in response to the increase in environmental and sustainability reporting and assessment/appraisal activity at all levels as well as specific regulations and responsibilities of public bodies.
- b) **Data sharing and multiple data providers is expanding.** Linked to the above point, custodian and data sharing arrangements are becoming more common. It is therefore very important to clearer identify data ownership and data supplier details to avoid problems or confusion associated with data ownership and supply arrangements for SEA practitioners. (This accords with the recommendations of both the RCEP, 2002 and West Midlands Sustainable Development Plans Group, 2002).
- c) **Awareness and experience of the specific data requirements of plan/programme SEA is generally poor.** The limited use of data in SA to date may be a handicap to generating this understanding amongst data providers and plan/programme authorities.
- d) **The future availability of datasets is difficult to predict.** Future availability may be more certain where data collection is linked to a statutory provision. In other cases, even where held by public bodies, data availability may be vulnerable to changing management priorities and other constraints.

Data gaps and future needs have been identified on a topic-by-topic basis (reflecting the list of topics the SEA Directive as well as wider sustainable development themes) and are shown in the following table:

Topic	Data Gaps and Possible Future Needs for SEA
<b>Biodiversity, Flora and Fauna</b>	The practical use of natural areas datasets in SEA is unproven and it may be that development/re-aggregation to form a dataset/objectives/indicators between that and individual sites could be of most use in area wide SEA. The establishment of a national biodiversity network may help.
<b>Soil</b>	No issues identified.
<b>Water</b>	Datasets relating to the water environment tend to be one-dimensional (e.g. flooding, water quality, or river habitat) and thus require careful selection if only a limited range of indicators are to be used.
<b>Air</b>	Datasets for local air quality and emission factors need to be used and interpreted carefully in SEA to avoid incorrect conclusions from being drawn.
<b>Climatic Factors</b>	Sectoral and regional translation of climate change related greenhouse gas emissions, temperature change and rainfall targets.
<b>Cultural Heritage</b>	Existing cultural heritage data tends to be building/site-specific or cover local areas (e.g. conservation areas). A broader scale aggregated dataset may be more appropriate for area wide SEA considerations.
<b>Landscape</b>	Interpretation of landscape value and plan/programme effects on the wider landscape (i.e. outside AONBs and national parks) is problematic based on existing datasets.
<b>Natural Resources</b>	Re-focussing datasets towards resource efficiency (rather than use and waste arisings) may assist SEA.
<b>Health</b>	Experience of the use of health data for wider assessments is lacking. Whilst powerful databases exist covering numerous datasets there is a need to develop methods to best make use of them in SEA. Another issue is one of data coverage as in addition to standard nationally available datasets, there are a wealth of secondary health studies and datasets for specific locations (e.g. in the grey literature). Improvements in this area should be led by the Public Health Observatory.
<b>Population</b>	Whilst deomographic and social datasets exist (e.g. census), there is demand for it to be made available in a more appropriate form for conducting a review of distributional effects across SEA topics. Improvements in this area are best addressed by the social appraisal community.
<b>Material Assets (excluding natural resources)</b>	Basic and reliable information on greenfield and brownfield sites is cited by practitioners as a gap in some local authority areas.
<b>Economy</b>	Economy has been one of the most difficult topics to get to grips with in Sustainability Appraisal practice to date. There are a lack of appropriate methods for using available datasets to determine

	wider economic impacts. Improvements in this area are best addressed by the economic appraisal community, perhaps through the Business Economy Module of the Regional Observatory.
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There are many issues associated with the practicalities of SEA monitoring such as whether it is to be process or effect focussed and how to deal with long timescales. Other issues include:

- a) Identifying and ring-fencing the resources for monitoring some way in the future;
- b) Difficulty in showing cause and effect;
- c) Responsibilities for monitoring and seeing that it is done, particularly where effects extend across administrative boundaries;
- d) Ensuring appropriate end-use of the monitoring information that is collected.

Key conclusions identified through this study are:

- a) Data availability in terms of quality and coverage will never be perfect. One means to compensate for this in the SEA/SA process is to involve stakeholders with a wide range of backgrounds and perspectives. In this way, the majority of impacts will be identified and the varying degrees of significance attached to them can be gauged;
- b) The critical importance of the interpretation of Article 5(2) of what is “reasonable” information to include in an SEA Environmental Report (including relationship with other levels of hierarchy including EIA) in driving data needs for SEA;
- c) Whether assessment methodologies should drive the data assembly process or the other way around;
- d) The importance of indicators will increase as the decision-making hierarchy is ascended. The level of abstraction will become such that assembling a detailed picture of the baseline may become difficult and inappropriate;
- e) There may be an inappropriate scale or level of aggregation of datasets to inform the assessment of “area wide” plan/programme proposals;
- f) Addressing the issues associated with confidentiality and the limitations of the Access to Environmental Information Regulations in the context of SA and SEA data domains;
- g) The geographic overlap of plans and programmes which gives rise to potential efficiencies in data assembly and analysis but could also generate inconsistencies;
- h) There is little experience of post-decision monitoring for plan and programme SEA from which to draw lessons in implementing the Directive;
- i) Differences in the baseline data requirements between each plan/programme exist in terms of topics covered, scale/level of detail, coverage etc. This will place a limit on the efficiencies that can be gained by promoting generic approaches to defining data needs.

The following recommendations are made in light of the conclusions of this study:

***Recommendations for Phase 2***

- a) Explore existing examples of plans that have had an “Appropriate Assessment” under the provisions of the Habitats Directive to explore how such assessments might be integrated into plan/programme SEA;
- b) Explore one or more examples of the timing and requirements for SEA in relation to nested plans and programmes within the range of pilots (e.g. a local authority development plan and its feeder strategies);
- c) Use phase 2 to assist the regional (e.g. Regional Observatories) and national (e.g. MAGIC) initiatives to develop a framework for aiding data processing and co-ordinating its availability and promote consideration of data pedigree for SEA amongst data providers in support of the Royal Commission for Environmental Pollution’s recent conclusions (RCEP, 2002);
- d) Use the South West RSDF as a starting point for scoping the SEA pilots in phase 2 to focus efforts on ensuring its objectives are ‘underwritten’ with good baseline data and have appropriate, measurable indicators attached to them;
- e) If possible, use one or more pilot study to investigate post-decision SEA monitoring in a practical context;
- f) Further investigation is required to build up a robust view of the utility and limitations of individual datasets for SEA. This should be seen as an ongoing activity and may not become comprehensive until many more SEAs have been undertaken.
- g) Use the pilot studies to consider the influence of sector-specific technical scope and sector-specific policy/plan/programme/project hierarchies over the appropriateness of SEA procedures, methods (and data requirements).

### ***Wider Recommendations***

- a) Improve the organisation of and accessibility to existing metadata databases and raise awareness of their existence;
- b) Government to define how the relationship between SEA (under the Directive) is to operate and integrate with SA and other appraisal practice. This may be through a “wide” definition of SEA topic-scope to incorporate SA requirements or a “narrower” definition of SEA topic-scope which would involve SEA working alongside other appraisal activities to fulfil different additional needs. This question should be considered on a plan/programme-specific or sector-specific basis.
- c) Explore further the potential links between the implementation of the Water Framework Directive and the SEA Directive;
- d) Investigate the feasibility of developing Regional/UK-wide databases of environmental protection objectives for SEA;
- e) Promote awareness of the differences between SEA and SA amongst local authorities;
- f) Develop guidance and promote awareness of appropriate treatment of uncertainty in SEA;
- g) Develop methods by which future baseline conditions can be established for different assessment years;

- h) Review the scope of monitoring requirements for SEA by plan/programme type alongside the associated resource requirements for the plan/programme authority and/or others involved in undertaking the monitoring;
- i) Provision of training, guidance and resources to identify, use and assess the robustness of assessment data.

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# 1. INTRODUCTION

## Introduction to the Study

- 1.1 This study has been undertaken by TRL Limited with assistance from Collingwood Environmental Planning (CEP) for a Project Management Group comprising of representatives of the South West Regional Assembly, Devon County Council, Somerset County Council, the DTLR and the Environment Agency. The project has been funded under the English Regions Network and with a contribution from the Environment Agency. Project outcomes will be shared amongst other regions through the English Regions Network.
- 1.2 Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment (the Strategic Environmental Assessment (SEA) Directive) was adopted in June 2001 and must be incorporated into Member State national law by 21<sup>st</sup> July 2004. The DTLR is currently considering ways in which SEA should be undertaken in the England and thus the shape of regulations and supporting guidance.
- 1.3 This study is phase 1 of a wider project for which the following objectives have been set:
- a) To explore and evaluate the effectiveness of SEA as a tool for appraising sustainability;
  - b) To examine the barriers that organisations perceive may prevent them from implementing the SEA Directive; and
  - c) To establish good SEA practice in the South West and promote this within and beyond the Region.
- 1.4 This phase is effectively a scoping study to consider baseline data requirements and to identify information gaps. The product of this phase is intended to go beyond a simple of appreciation of data requirements and availability in order to provide a practical consideration of the implications of data needs on future plan and programme SEAs. In this way it will inform phase 2 in which pilot SEAs will be selected to test and learn from SEA implementation in practice. Phase 3 will then involve promotion and dissemination of the project outcomes including key findings and best practice.

## Structure of the Report

- 1.5 Chapter 2 provides an overview of the study methods employed while Chapter 3 sets out the context to the study and describes SEA, Sustainability Appraisal (SA) and other

plan/programme assessments as well as the relationships between them. The theoretical data needs for SEA are examined in Chapter 4, considering issues such as topic coverage and practical data assembly issues as well as examining 25 priority plan/programme types in more detail. A summary of the views of SEA/SA practitioners is set out in Chapter 5, presented by the type of organisation responding (see also Appendix C).

- 1.6 Chapter 6 then considers data availability in the South West Region and the implications of data gaps for future SEA practice whilst Chapter 7 examines the issue of data requirements for SEA monitoring. Conclusions and recommendations relating to the use of data in SEA are then presented in Chapters 8 and 9, the latter being separated into recommendations for phase 2 of the project and those of wider relevance.

## 2. STUDY METHODS

2.1 Following an initial project team brainstorming (also attended by members of the Project Management Group) telephone/email consultation exercises with twenty selected SEA/SA practitioners and over fifty data provider organisations were undertaken. Investigations of selected plan/programme types were also completed, allowing an examination of data demands for SEA versus data availability as well as consideration of data gaps and monitoring requirements. An overview of the study methods employed is provided in Figure 2.1.

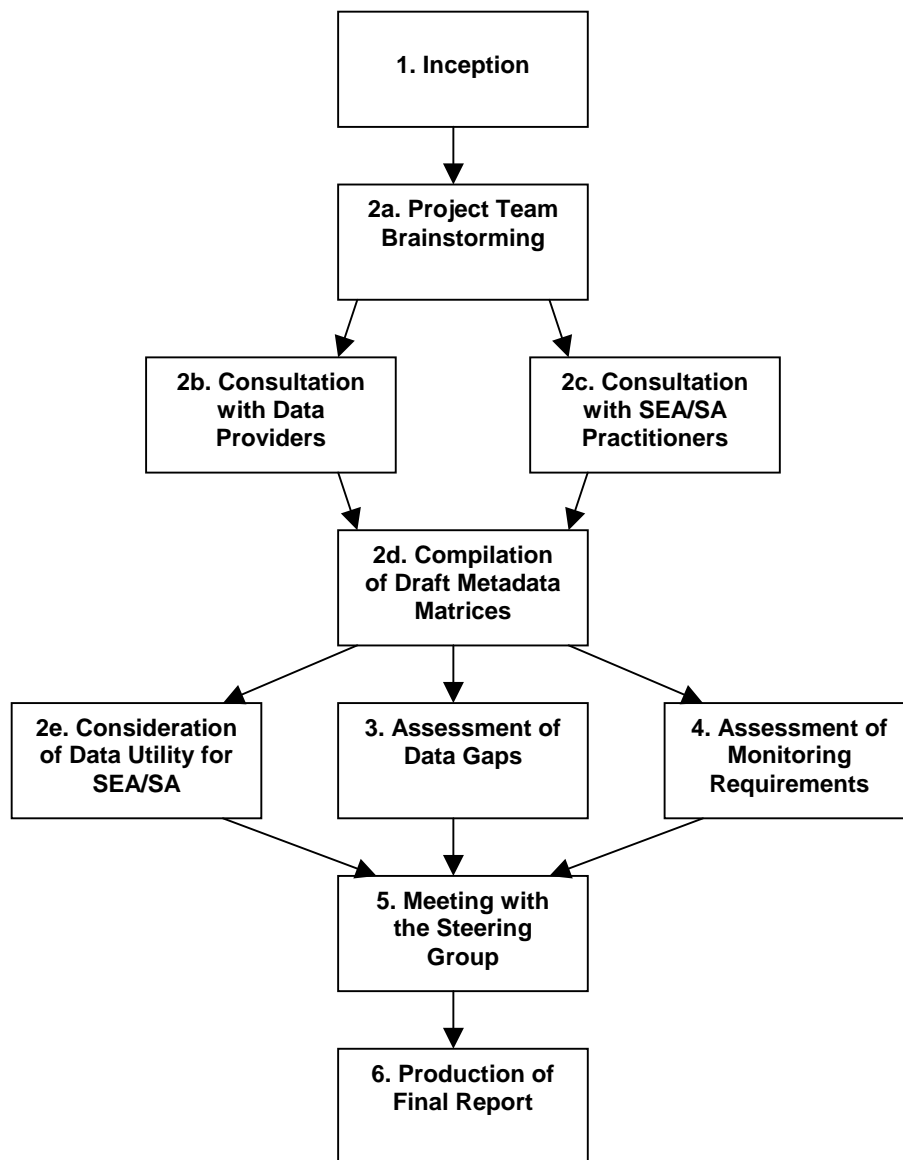


Figure 2.1: Overview of Study Methods

### 3. RELATIONSHIP BETWEEN SEA, SA AND OTHER ASSESSMENTS

#### Overview and Evolution of SEA and Sustainability Appraisal

3.1 Strategic Environmental Assessment (SEA) has been defined as:

*“the formalised, systematic and comprehensive process of evaluating the environmental effects of a policy, plan or programme and its alternatives, including the preparation of a written report on the findings of that evaluation, and using the findings in publicly accountable decision-making”* (Therivel *et al*, 1992, page 19/20).

3.2 Although the European Commission began internal work on a proposal for a Directive on SEA in 1989 (Feldmann, 1998), it took over a decade for the SEA Directive to be adopted. During this period the UK witnessed a growth in the application of environmental appraisal (later becoming sustainability appraisal), particularly in relation to local authority development plans partly driven by the Treasury-led evidence-based approach to decision making.

3.3 Precedents for the assessment of plans were established by Directive 92/43/EEC on the conservation of natural habitats and of wild flora and fauna (the ‘Habitats Directive’) and Council Regulation (EEC) No. 2081/93 of July 1993 which amended Council Regulation (EEC) No. 2052/88 on the Structural Funds (1988). Article 6(3) of the Habitats Directive requires any *plan* or project deemed to have a significant impact on a Special Area of Conservation (SAC) or Special Protection Area (SPA) to undergo an ‘appropriate assessment’. The amended Structural Fund regulations required Regional Development Plans (RDPs) submitted under objectives 1, 2 and 5b to include an assessment of their impact on the environment (an ‘environmental profile’). The regulations governing the Structural Funds were revised again in 1999 (Council Regulation (EC) No. 1260/1999) and emphasised the need to assess the compatibility of RDPs with national, regional and local environmental management objectives.

3.4 Article 1 of the SEA Directive sets out the objective of the Directive as being to *“...provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development...”*. In delivering this objective, competent authorities will be required to conduct environmental assessment of plans and programmes (but not policies)

where the plans and programmes are from particular sectors<sup>2</sup> or otherwise those which have significant environmental effects, and set the framework for future development consent of EIA projects (under Directive 85/337/EEC as amended), or which require an appropriate assessment under the provisions of the Habitats Directive (92/43/EEC).

3.5 For those plans and programmes to which the SEA Directive applies then the following requirements are established:

- a) A study is made of the probable significant environmental effects of implementing the plan or programme and reasonable alternative proposals;
- b) An Environmental Report and Non-Technical Summary is prepared and made available to the public;
- c) Consultation with relevant bodies and the public is carried out;
- d) The results of the study and consultation are taken into account prior to the formal adoption of such plans or programmes; and
- e) Information on the decision is provided.

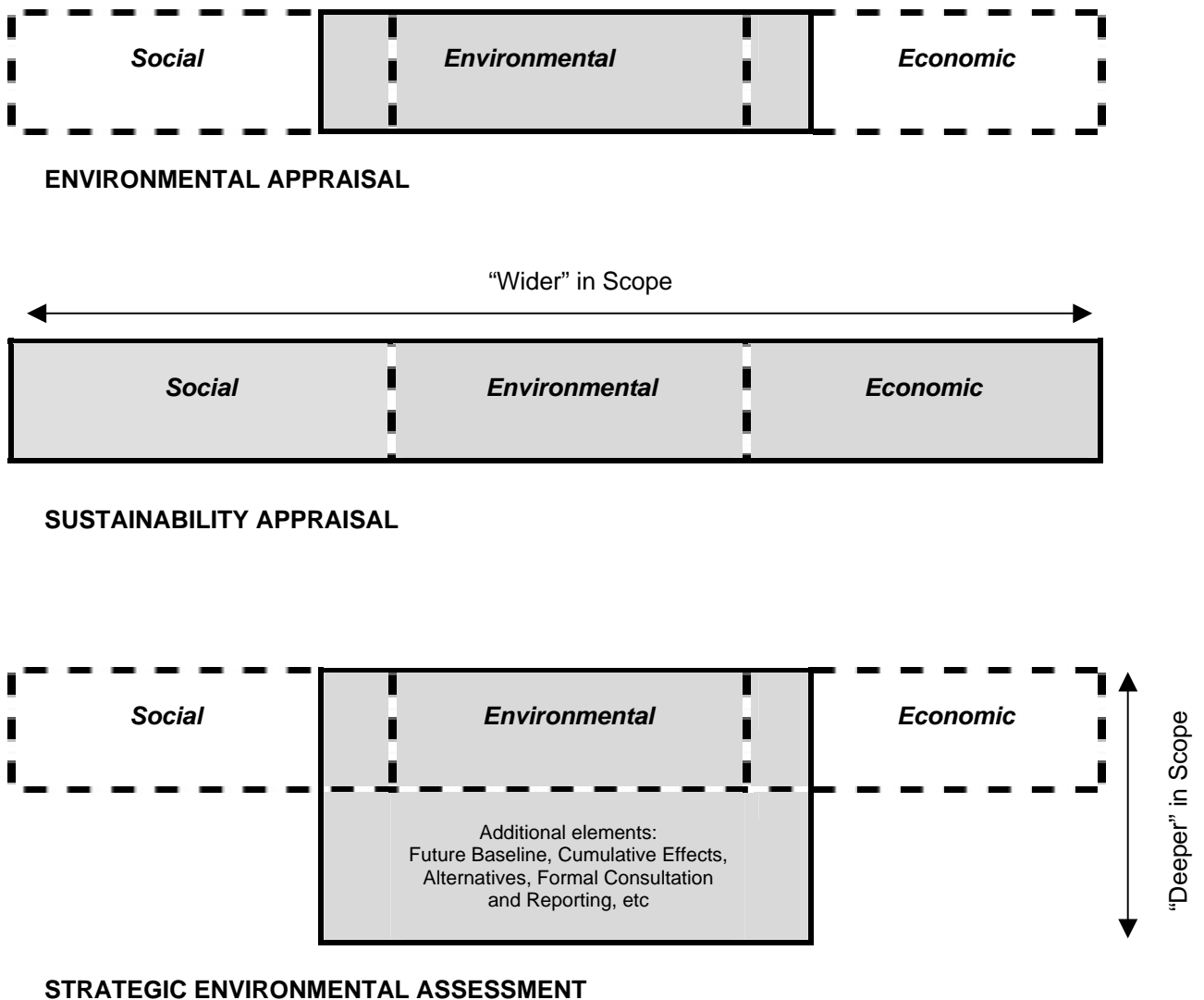
3.6 The DTLR is currently investigating the range of plans and programmes to which the Directive may apply. This process is complicated by the use of different terminology (e.g. certain “strategies” may be indistinguishable from plans and programmes), shared responsibilities (e.g. the Environment Agency and Water Companies in relation to water resource planning) and the fact that some sectors do not have a recognised strategic planning hierarchy (e.g. agriculture and fisheries). Other changes to plan and programme making practice such as the current overhaul of the spatial planning system (including the proposed abolition of structure plans) also has a bearing on the implementation of SEA. A working list of plans and programmes which has been prepared by the DTLR is provided in Appendix A.

3.7 The requirements of the SEA Directive should represent a step forward in improving the robustness of plan/programme appraisal practice through the inclusion of elements such as establishing future baseline conditions and dealing with cumulative effects and alternatives. SEA would appear to be counter to the current promotion of integrated forms of assessment in the UK (such as sustainability appraisal for regional planning and the New Approach to Appraisal in transport planning). However, the Directive stresses the role of SEA in promoting sustainable development and potential exists for SEA to form a large component of integrated assessment practice.

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<sup>2</sup> Agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications, tourism, town and country planning or land use.

3.8 This point is illustrated in Figure 3.1 which provides an idealised view of the difference in scope between environmental appraisal, sustainability appraisal and strategic environmental assessment. Whilst environmental appraisal has tended to cover social and economic issues to some extent, the advent of sustainability appraisal brought a greater “width” in terms of the range of issues considered and gives equal weight to social, environmental and economic issues. A simple comparison between environmental and sustainability appraisal with the emerging practice in SEA and content of the SEA Directive highlights a number of additional elements associated with the latter (e.g. future baseline forecasts, identification of cumulative effects, consideration of alternatives, mitigation and formal consultation/reporting). It is this greater “depth” of SEA that underpins its baseline data needs discussed in chapter 4.



**Figure 3.1: Illustration of the Difference in Scope between Environmental Appraisal, Sustainability Appraisal and Strategic Environmental Assessment**

- 3.9 One issue that has a bearing on data assembly associated with the different tools, is the future relationship between SEA and Sustainability Appraisal (SA). Annex I to the SEA Directive lists the following as possible issues for consideration in any assessment: *“biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural heritage and archaeological heritage, landscape and the interrelationship between the above factors”*. Reference to ‘population’, ‘human health’ and ‘cultural heritage’ clearly indicate the need to consider social as well as environmental issues as part of any assessment while ‘material assets’ and ‘population’ could also be viewed as encompassing issues important to the economy (e.g. property, education, employment and skills). The data requirements for SEA are therefore potentially wide and could be argued to extend beyond ‘traditional’ physical and natural environmental issues.
- 3.10 Whilst each assessment will to some extent be unique in the range of issues it considers, the discipline of the requirements of the Directive may lead to convergence of practice in terms of SEA scope, at least within sectoral plan and programme groups. This may be reflected in the content of Environmental Reports.
- 3.11 It is important to note that the SEA Directive requires consultation on the scope of the assessment (Article 5 (4)). The scope of any assessment will therefore be unique and could address any combination of the issues listed in Annex I. Where the assessment extends into social and economic spheres then it may well be defined as a sustainability appraisal.
- 3.12 The choice of term – SEA or SA – may be somewhat academic, but three points should be borne in mind. Firstly, whereas the consideration of social and economic aspects is discretionary, addressing environmental issues is obviously essential in order to comply with the Directive. Secondly, the terminology appears to have different connotations. Whereas an ‘assessment’ is regarded as a data hungry, technical and extended investigation into the impacts of a plan or programme, ‘appraisal’ is often perceived as being information-light, based largely on expert opinion and able to be undertaken in a relatively short space of time. The Royal Commission on Environmental Pollution (RCEP) recently highlighted the lack of quantification in sustainability appraisal and the ‘poor science’ involved in its environmental analyses and voiced concern that *“the sustainability appraisal process does not need ‘baseline’ environmental studies as strategic environmental assessment does”* (RCEP, 2002, page 98). Thirdly, SA tends to be applied to the appraisal of policy measures (contained within plans and programmes or as free-standing statements of policy), whereas SEA, with its

evolution from project EIA, tends to have a stronger basis in dealing with plans and programmes.

- 3.13 Incorporating the requirements of the SEA Directive into SA practice – particularly those aspects relating to the provision of baseline information, the consideration of alternatives and consultation with expert bodies and the public - could therefore serve to strengthen the SA process and enhance its legitimacy (Smith and Sheate, 2001a). In doing so, however, it would be essential to ensure that sufficient priority was attached to environmental issues and that the assessment was robust and defensible at inquiry.
- 3.14 Although sustainability appraisal is considered a valid approach since the pursuit of sustainable development requires the environmental, social and economic consequences of decisions to be appraised simultaneously (DTI, 2001), the RCEP has expressed concern that *“sustainability appraisal can in fact marginalise the very environmental and social appraisals that it is supposed to bolster as a counterpoint to dominant and financial and economic assessments”* and, moreover, *“where the driver or imperative for a policy, plan or programme is an economic one, as it often is, appraising the effects of the policy, plan or programme in terms of economic criteria and subsequently justifying it on that basis renders the appraisal meaningless”* (RCEP, 2002, page 98). As a consequence, the RCEP believes that the environmental component of sustainability must be strengthened as a condition for its retention and recommends that, *“the government, if it wishes to retain sustainability appraisal, [should] strengthen the environmental component so that it will satisfy the legal requirements of the European Directive on strategic environmental assessment. We do not consider that sustainability appraisal as currently undertaken is adequate for this purpose. The alternative is to recognise strategic environmental assessment as the central requirement with a non-statutory supplementary exercise to take account of the economic and social dimension”* (RCEP, 2002, page 98).

### **Experience of SEA/SA practice**

- 3.15 SEA-type approaches, particularly for multi-project or programme situations, have been applied in a handful of cases across various sectors. These cases can largely be characterised as “bottom-up” SEA, evolving from EIA to address issues beyond a conventional project-level assessment. Examples include the National Forest in the Midlands, the Channel Tunnel Rail Link and flood defence/water resources SEA’s undertaken by the Environment Agency and water companies (see also Therivel and Thompson, 1996 and DETR, 1998). Other recent examples include the Strategic Environmental Appraisal of the Strategic Defence Review (Ministry of Defence, 2000). In addition, the programme of Multi-Modal Studies has

spawned an increased awareness of the problems of assessing the environmental consequences of transport plans, particularly those extending over a wide geographic area.

- 3.16 In 1998, Therivel reported that approximately one-third of respondents to a 1997 questionnaire on local authority appraisal practice characterised their appraisals as ‘sustainability appraisals’ (as opposed to environmental appraisals). At the regional level, the trend towards sustainability appraisal culminated with the publication of a *Good Practice Guide on Sustainability Appraisal of Regional Planning Guidance* in October 2000 (DETR, 2000). Aspects of the methodology detailed in the DETR Guide were applied to the previous round of RPG and Regional Economic Strategy (RES) preparation and RDAs are increasingly applying sustainability appraisal to the thematic action plans for implementing their RESs. Instances of sustainability appraisal being applied to in other areas are also emerging, for example:
- a) In the North West a sustainability appraisal on applications for funding under the Single Regeneration Budget has been undertaken (James and Donaldson, 2001);
  - b) The UK Sustainable Development Commission has recently undertaken a sustainability appraisal of submissions to the Policy Commission on the Future of Food and Farming (UK Sustainable Development Commission, 2001).
  - c) The Environment Agency is also increasingly undertaking sustainability appraisals and has developed guidance for sustainability appraisal of Catchment Abstraction Management Strategies (CAMS) (Environment Agency, 2001).
- 3.17 In terms of guidance, the Planning Green Paper, *Planning: Delivering a Fundamental Change* (DTLR, 2001), commits the Government to publishing guidance on sustainability appraisal of new Local Development Frameworks: *“There will need to be an integrated and comprehensive appraisal covering economic, environmental and social impacts of the Local Development Framework. We will issue appraisal guidance, taking full account of the requirements of the EU Directive on Strategic Environmental Assessment”*.

### **Avoiding Duplication through Combined Assessments**

- 3.18 Plans and programmes may be subject to some form of strategic assessment or appraisal for another purpose and the SEA Directive makes explicit reference to the need to avoid duplication of assessments (see preamble paragraph 15, Articles 4, 5, and 11) (see Tomlinson, 2000). To this end it is important to consider the relationship between plan/programme level SEA and project level EIA (under 85/337/EC) in order to ensure that assessment activity is being conducted at the appropriate level of the hierarchy (i.e. vertical tiering).

- 3.19 Plans (but not programmes) requiring SEA may also be covered by Article 6 of the Habitats Directive (92/43/EEC). Under regulation 48(1) of the Habitats Regulations 1994 which implements Article 6, an appropriate assessment needs to be undertaken in respect of any plan or project which:
- a) either alone or in combination with other plans or projects would be likely to have a significant effect on a European Site, and
  - b) Is not directly connected with the management of the site for nature conservation.
- 3.20 The requirements of the Habitats Regulations are in similar to those of the SEA Directive in that they share the test of significance for screening and identifying the effects of plans. However, an appropriate assessment will focus on nature conservation interests of a site or group of sites. The responsibility for undertaking an appropriate assessment is also different from an SEA as it falls to the competent authority (including Government Departments, public or statutory undertakers and other public bodies) with information provided by the developer and in consultation with English Nature.
- 3.21 Where plans are subject to both the SEA and Habitats Directives, it is proposed that the appropriate assessment may form part of the SEA, however it should be clearly distinguishable and identified within the Environmental Report or reported separately (European Commission, 2001). Further information on appropriate assessments can be found in English Nature's "Habitats Regulations Guidance Notes" (English Nature, 1997a, b, 1999, 2001) as well as in recent guidance prepared by Oxford Brookes University for the European Commission DG Environment, which promotes integration of appropriate assessments into SEA (and EIA) (European Commission, 2001).
- 3.22 Whilst the Habitats Regulations have been in place since 1994, it has taken a number of years for competent authorities to develop awareness and understanding of the requirements for appropriate assessments. At the plan level there is growing experience amongst local authorities of the application of the Regulations to development plans. This may in practice constitute a process of identifying where plan allocations could give rise to issues relating to a European site rather than undertaking a detailed assessment at that strategic level.
- 3.23 Also of relevance to plan and programme SEA is the implementation of the EC Water Framework Directive (2000/60/EC), which places obligations on Member States to achieve specific environmental objectives for water bodies. River Basin Management Plans (RBMPs), to be published by 2009, providing the context for measures needed to achieve the objectives. The relationship between the provisions of the Water Framework Directive with those of the SEA Directive are not yet clear, but may centre around the following issues:

- a) River Basin Management Plans may be subject to SEA (see Appendix A) and thus the appraisal system being developed to support the RBMP process (including to determine whether a derogation of the timetable/objectives is to be allowed on the grounds of it being “disproportionately expensive”) may sensibly be integrated with the requirements of undertaking an SEA of the plan;
- b) River Basin Management Plans will need to draw upon and influence other plan and programme preparation (e.g. land use plans) as well as national policy (e.g. relating to agriculture). This context is needed in order to assess likely developments that could affect the future water quality scenario and identify and implement new measures to achieve water quality objectives.

3.24 A clear area of uncertainty affecting data needs and efficiency of data use relates to how SEA will link to project EIA and to other plans (Wood and Tomlinson, 2001).

### **Methodological Issues**

3.25 It was not within the scope of this study to undertake an exploration of the methods that can be applied to SEA, however the choice of methods has a strong bearing on data needs. For example, the manner in which indicators are defined and used will demand different types of data at different levels of aggregation.

3.26 Guidance and practice in the environmental and sustainability appraisal of plans favours an objectives and indicators-led approach where the assessment concentrates on key indicators as a proxy for the totality of the effects of the plan. In the simplest form this approach may use only standard indicators and require no actual examination of effects beyond an expression of whether the plan would tend to move the indicator towards or away from a desired direction of change. This approach helps to simplify the potentially almost endless task of impact identification and prediction at the strategic level to a consistent set of issues but does rely upon careful consideration of objectives and robust selection of indicators. An alternative approach, which is potentially far more data hungry, seeks the assessment of all significant effects along the lines of EIA practice.

3.27 In broad terms the objectives and indicators-led approach is most suitable for the assessment of policies (or plans containing policy-type proposals) whereas an examination of significant effects is more feasible for the assessment of location-specific proposals, perhaps more often found in “programmes”.

3.28 As plans often comprise a combination of policy and programme type elements, so there is likely to be a need for a combination of approaches. Those plans with a policy emphasis are likely to rely upon a set of pre-defined indicators while those dealing with programmes adopt an objectives and indicators-led approach but with an assessment of significant impacts (including determining magnitude, sensitivity of receptors using quantification where possible). It may then be helpful to see this as a continuum from tightly defined approaches where pre-selected indicators are used as the only assessment tool through to approaches with more indicators, greater local flexibility in their selection and/or supplementary assessment of significant effects. Such a model is reflected in the draft Guidance on SEA for Multi-Modal Studies (TRL, unpublished).

## 4. THEORETICAL DATA NEEDS FOR SEA

### Data Requirements of the SEA Directive

- 4.1 For plan/programme-making authorities the important questions are what data, how much data and how should they be used in order to carry out SEA? These questions may be contrasted against knowledge of the detailed data requirements of EIA and/or experience of the very limited data assembly needs of SA, neither of which is likely to provide an appropriate approach for SEA.
- 4.2 As well as the Directive's general emphasis on transparent decision making and ensuring that information is comprehensive and reliable (item 15 of the Directive's preamble). Specific points on data needs are presented in Annex 1 which outlines the information required within the Environmental Report for the SEA. Interpretation is needed in applying Annex 1 of the Directive as the information is only needed as far as it is reasonably required<sup>3</sup>. It includes:
- a) The relevant aspects of the current state of the environment and the likely evolution thereof without implementing the plan or programme;
  - b) The environmental characteristics of areas likely to be significantly affected;
  - c) Any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC (The Birds Directive - Special Protection Areas) and 92/43/EEC (The Habitats Directive - Special Areas of Conservation);
  - d) The environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation. These environmental objectives could be collated centrally – see for example a database of environmental quality objectives being developed by the German EIA authority ([www.uvp.de/welcengl.html](http://www.uvp.de/welcengl.html)).
- 4.3 Together these items comprise a requirement to generate a picture of the current and future environmental baseline conditions in reporting the results of the assessment. Annex 1 goes on to outline requirements in relation to identifying significant effects and mitigation measures.

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<sup>3</sup> "...taking into account current knowledge and methods of assessment, the contents and level of detail in the plan or programme, its stage in the decision-making process and the extent to which certain matters are more appropriately assessed at different levels in that process in order to avoid duplication of the assessment." (Article 5(2)).

- 4.4 The Directive also requires an outline of the reasons for selecting the alternatives dealt with to be reported (Annex 1) and publication of information on the decision, including reasons for the selection of the chosen plan or programme in the light of other reasonable alternatives. The requirements on alternatives could give rise to additional data demands. The SEA screening criteria in Annex 2 of the Directive could also drive data needs in identifying the characteristics of the effects of the area likely to be affected (e.g. in terms of their magnitude and spatial extent of the effects and the vulnerability of the area). Finally, the Directive's provisions in Article 10 with respect to monitoring are also relevant (see Chapter 7 of this report).

### **Data Assembly Requirements of Existing SA Guidance and Practice**

- 4.5 The sustainability appraisal methodology detailed in the DETR Guide on SA of RPG was very much modelled on the approach set out in *Environmental Appraisal of Development Plans: A Good Practice Guide* (DoE, 1993). However, the two guides differ in one important respect. While the latter is based on a baseline-led approach (employing components of the area in question's environmental 'stock' as the basis for appraisal), the former is based on an objectives-led approach (employing a series of aspirational regional objectives for sustainable development). Experiences of these distinct approaches are relevant to the current debate on the differences between SA and the future requirements of SEA (see Chapter 3).
- 4.6 Although the DETR Guide referred to the use of baseline studies in carrying out appraisal, in practice sustainability appraisals at the regional level have not employed baseline information explicitly (Smith and Sheate, 2001b). Instead, anticipated progress towards objectives is largely gauged through expert opinion. However, in order to accurately gauge the contribution of a plan towards a particular objective, it is usually necessary to have an understanding of the current situation vis-à-vis that objective. Indeed, an objective (and any associated targets and indicators) can only be properly defined if there is some knowledge of the current baseline.

### **Data Assembly Requirements of Other Plan/Programme Assessments**

- 4.7 An appropriate assessment of a plan under the Habitats Regulations (1994) would need data to support the:
- a) Identification and understanding the site's nature conservation objectives;
  - b) The provision, by the applicant, of such information as may be reasonably required for the purposes of the assessment; and
  - c) Identification of the effects of the proposal on habitats and species of international importance (English Nature, 1997a).

- 4.8 Emphasis is on the collecting of data as far as it is required to enable an appropriate assessment to be made, this being less onerous at the plan level. Recent guidance from the European Commission (2001) identifies some examples of specific sources that will need to be consulted in order to identify the impacts of the plan or project:
- a) the Natura 2000 standard data form for the site;
  - b) Current and historical maps;
  - c) Land use and other relevant existing plans;
  - d) Site survey material;
  - e) Data on hydrogeology;
  - f) Data on key species;
  - g) Environmental Statements for similar projects or plans elsewhere;
  - h) State of the Environment Reports;
  - i) Site Management Plans;
  - j) Geographical information systems;
  - k) Site history files;
  - l) Other as appropriate.
- 4.9 The data needs associated with River Basin Management Plans (RBMPs) are being considered in work by the Environment Agency and DEFRA on an economic appraisal procedure. The development and assessment of RBMPs is likely to generate its own specific data demands but also has potential for integration (see Chapter 3).
- 4.10 Whilst further investigation is needed to consider how appropriate assessments and assessments of River Basin Management Plans are undertaken and thus how they are integrated with SEA, it is evident that where a plan affects a SAC or river basin then the appropriate assessment may be more detailed than that for the rest of the plan area. Hence assessments may require different levels of data reflecting the extent to which significant issues arise. TRL's draft Guidance on Strategic Environmental Assessment for Multi-Modal Studies for the DTLR adopts area-wide indicators essentially as a screening tool with "hot-spot" indicators being used to address specific significant issues.

### **SEA Topic Coverage**

- 4.11 The range of topics for consideration in SEA will always need to be confirmed as part of scoping process for individual plans and programmes. However, in order to provide structure for consideration of data demands and availability, an attempt can be made to consider likely SEA topic coverage in light of the demands of the SEA Directive, experience of SA practice and potential combined assessments in relation to data assembly.

- 4.12 Four key drivers have been identified for possible topic listings for SEA/SA are identified from the following documents (see Appendix B):
- a) The SEA Directive;
  - b) Quality of Life Counts (reflecting the UK Sustainable Development Strategy Framework) (DETR, 1999);
  - c) DTLR Guidance on Sustainability Appraisal of Regional Planning Guidance (2000a);
  - d) SWRA South West Sustainable Development Framework (2001).
- 4.13 Recognising the legal bearing of requirements of the SEA Directive, as well as a desire to promote SEA integration within the framework of sustainability, a proposed working list of topics with subtopics to indicate the scope of relevance to strategic assessment is presented in Table 4.1. The list is based on:
- a) Organisation under the four themes of the UK sustainable development strategy;
  - b) Use of the headline topics listed in the SEA Directive (amended to merge flora, fauna and biodiversity);
  - c) The addition of “Natural Resources” and “Economy” topics to complete the coverage against the four elements of sustainable development.
- 4.14 As well as data requirements for the assessment of effects, the community data necessary to determine the distribution of the effects across different social groups ought to be considered. The scale of analysis with which plan/programme level SEA is concerned, together with likely constraints on resources, may limit the assembly of such community data (see Tomlinson, 2001a).
- 4.15 Health issues are addressed by the SEA Directive and also by a combination of international initiatives and Government policy. While methodologies are evolving in this sector, information needs are poorly served due to lack of organisation of existing data and in appropriate levels of data aggregation.

**Table 4.1: Working List of SEA Topic Coverage**

Sustainable Development Theme	Topic (* indicates inclusion in the SEA Directive)	Sub-topics	Examples of indicators (with source). Note that some indicators may serve more than one topic.
Protection of the Environment	<b>Biodiversity, Flora and Fauna*</b>	<ul style="list-style-type: none"> <li>▪ Biodiversity – habitats and species</li> </ul>	<ul style="list-style-type: none"> <li>➤ Damage to internationally and nationally and designated sites<sup>2</sup></li> <li>➤ Effect on regional Biodiversity Action Plan targets for habitats and species<sup>2</sup></li> </ul>
	<b>Soil*</b>	<ul style="list-style-type: none"> <li>▪ Soils</li> <li>▪ Geology/earth heritage</li> </ul>	<ul style="list-style-type: none"> <li>➤ Soil Association approved organic farms</li> </ul>
	<b>Water*</b>	<ul style="list-style-type: none"> <li>▪ Surface water quality and quantity</li> <li>▪ Flood risk</li> <li>▪ Groundwater quality and quantity</li> <li>▪ Coastal water quality</li> </ul>	<ul style="list-style-type: none"> <li>➤ River water quality compliance<sup>2</sup></li> <li>➤ Bathing water quality<sup>2</sup></li> <li>➤ Groundwater pollution risk<sup>2</sup></li> <li>➤ Loss of flood storage<sup>2</sup></li> </ul>
	<b>Air*</b>	<ul style="list-style-type: none"> <li>▪ Emissions</li> <li>▪ Local air quality</li> </ul>	<ul style="list-style-type: none"> <li>➤ Achievement of air quality targets<sup>2</sup></li> </ul>
	<b>Climatic Factors*</b>	<ul style="list-style-type: none"> <li>▪ Greenhouse gas emissions</li> <li>▪ Regional and Global climate change</li> </ul>	<ul style="list-style-type: none"> <li>➤ Greenhouse gas emissions<sup>3</sup></li> </ul>
	<b>Cultural Heritage*</b>	<ul style="list-style-type: none"> <li>▪ Buildings of architectural or historic importance</li> <li>▪ Sites (e.g. ancient monuments)</li> <li>▪ Areas (e.g. parks, landscapes and archaeological complexes)</li> </ul>	<ul style="list-style-type: none"> <li>➤ No net loss of historic/cultural assets<sup>1</sup></li> <li>➤ Quality of Life Capital based approach<sup>3</sup></li> </ul>
Prudent use of Natural Resources	<b>Use of Natural Resources</b>	<ul style="list-style-type: none"> <li>▪ Consumption of undeveloped land</li> <li>▪ Use of agricultural land</li> <li>▪ Waste management hierarchy</li> <li>▪ Consumption of minerals from primary sources</li> <li>▪ Efficient water resource use</li> <li>▪ Use of energy</li> </ul>	<ul style="list-style-type: none"> <li>➤ % of all new development on previously used land<sup>1</sup></li> <li>➤ Waste management targets<sup>1</sup></li> <li>➤ Contribution of recycled and secondary aggregates as a % of total consumption<sup>2</sup></li> <li>➤ Use of renewable energy sources<sup>2</sup></li> </ul>
	<b>Human Health*</b>	<ul style="list-style-type: none"> <li>▪ Physical risk factors (e.g. air/land quality, safety)</li> <li>▪ Behavioural risk factors (e.g. physical activity, occupation)</li> <li>▪ Social risk factors (e.g. crime, social exclusion)</li> <li>▪ Institutional risk factors (e.g. access to health care)</li> </ul>	<ul style="list-style-type: none"> <li>➤ Gap in infant and early childhood death and illness between socio-economic groups<sup>1</sup></li> <li>➤ Population within xkm of a hospital providing A &amp; E services<sup>2</sup></li> </ul>
Social Progress	<b>Population*</b>	<ul style="list-style-type: none"> <li>▪ Noise and vibration</li> <li>▪ Balance between the distribution of population, employment and housing</li> <li>▪ Disparities in income, and access to jobs, housing, and services between areas within the region and between segments of the population</li> <li>▪ Accessibility to jobs, facilities and services</li> <li>▪ Housing</li> </ul>	<ul style="list-style-type: none"> <li>➤ Number of households affected by ambient noise above n dBa<sup>2</sup></li> <li>➤ Relative index of deprivation<sup>1</sup></li> <li>➤ Regeneration programmes in areas in the top quartile for the region for relative multiple deprivation<sup>2</sup></li> <li>➤ Population within x00m of a satisfactory public transport service<sup>2</sup></li> <li>➤ Population within x00m of a primary school<sup>2</sup></li> <li>➤ Relationship between housing provision to employment growth<sup>2</sup></li> </ul>
Economic Growth	<b>Material Assets* (excluding natural resources)</b>	<ul style="list-style-type: none"> <li>▪ Public and private property and the value of property (including land)</li> </ul>	<ul style="list-style-type: none"> <li>➤ Number of properties demolished.</li> </ul>
	<b>Economy</b>	<ul style="list-style-type: none"> <li>▪ Economic stability and competitiveness</li> <li>▪ Developing skills and rewarding work</li> <li>▪ Linkages between firms and the development of clusters and specialisms within an area</li> <li>▪ Building economic activity on local strengths</li> </ul>	<ul style="list-style-type: none"> <li>➤ Proportion of households with an income of less than 50% of the national average<sup>1</sup></li> <li>➤ Stable employment growth<sup>2</sup></li> <li>➤ Long run average growth (regional GDP)<sup>2</sup></li> <li>➤ Level of SME creation and survival<sup>1</sup></li> <li>➤ New sites for manufacturing and distribution to be within x km of a freight interchange facility<sup>2</sup></li> </ul>

<sup>1</sup> SWRA/SSW, 2001: A Sustainable Future for the South West – The Regional Sustainable Development Framework for the SW of England.

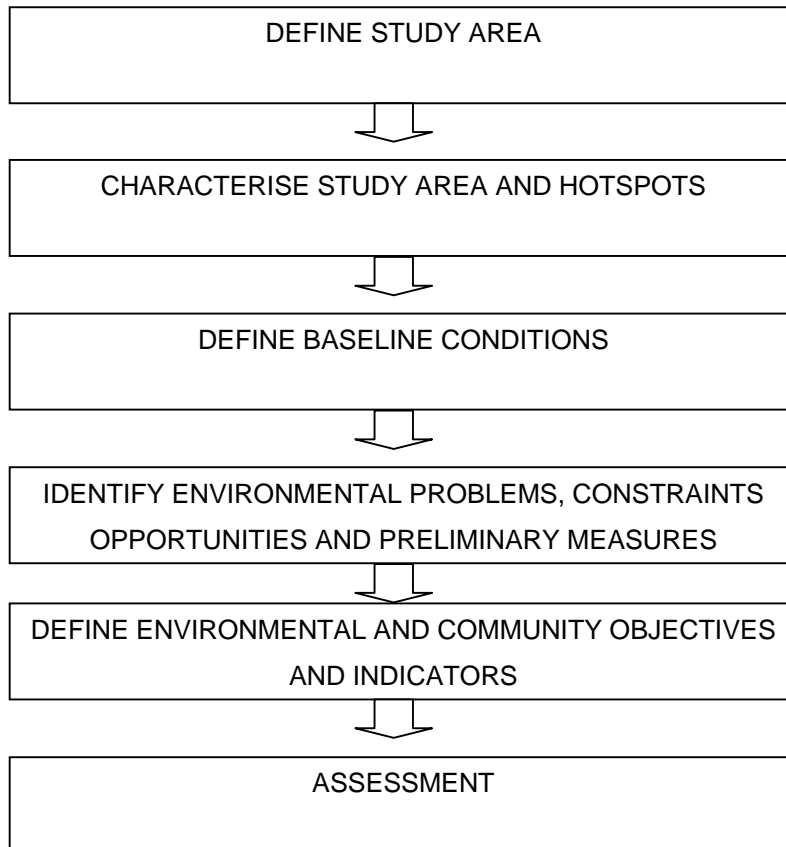
<sup>2</sup> DETR, 2000a: Good Practice Guide on Sustainability Appraisal of Regional Planning Guidance.

<sup>3</sup> DETR, 2000: Guidance on the Methodology for Multi-Modal Studies.

## Practical SEA Data Assembly Issues

- 4.16 The differences between EIA and SEA as well as the early development of sectoral SEA in the UK (e.g. in the transport and water management sectors) provide perspectives on the manner in which SEA data assembly may operate in practice.
- 4.17 The following are some of the key principles of data assembly for SEA:
- a) **Clear Objectives:** Data assembly should be driven by a clear understanding of the objective of the exercise, placing reliance upon a highly discriminatory approach to what environmental information is required at particular levels of detail.
  - b) **Integrated with Stakeholder Consultations:** The approach to data assembly and public/stakeholder consultation should not be seen as separate exercises.
  - c) **Balance:** Seeking to balance the needs for information with the practicalities of data assembly reflecting the level of descriptive information on the measures and strategies and the geographic scales of the study areas, notwithstanding the overarching need to assess all significant effects.
  - d) **Study Area:** The study area needs careful definition as effects may extend beyond the immediate plan/programme extent.
  - e) **Heterogeneous Approach to Detail:** Some areas of the study are may need to be addressed at an area wide level of detail while others may need greater level of detail on a specific topic.
- 4.18 SEA, as EIA, is an iterative process and so data assembly should not be seen as a one-off exercise. At the early stages of the SEA it will be a case of bringing together enough to gain an appreciation of issues (i.e. to scope the assessment) followed up with further data assembly exercise to provide the specific information to complete the assessment of significant effects. Figure 4.1 illustrates some of the key stages required within data assembly for plan/programme SEA. The process aims to provide an appreciation of valued environmental and community resources and the environmental issues associated with the current situation in the area. Such valued resources may not necessarily be subject to a form of statutory designation.
- 4.19 Given the wide geographic areas and the potential for locally important issues to require consideration, it is difficult to be prescriptive as to the information and data to be assembled or the mechanisms to be adopted. The availability of data is also an important factor in the selection of indicators if they are to be used in the SEA assessment (and later in the post decision monitoring). With this in mind it is important to appreciate that indicators for any particular environmental topic may have different foci which may generate different data

needs. Established indicator typologies may be useful here, such as the European Environment Agency’s “Driving Force, Pressure, State, Impact and Response” framework (see EEA, 1999).



**Figure 4.1: Practical Steps in Data Assembly for SEA (reflecting an objectives and indicators-led methodology)**

4.20 The definition of the geographic study area has an important bearing on data assembly for SEA for the following reasons:

- a) It bounds the areas in which effects can be identified;
- b) It influences the complexity of the assessment;
- c) It dictates the data assembly tasks;
- d) It has an influence upon the indicator units adopted;
- e) It has relevance to the assignment of significance of the effects.

- 4.21 Plan/programme timescales and future baseline years are also important. The SEA Directive does not specify a timescale for projecting the baseline into the future. Two factors could be borne in mind: (1) the duration of the strategy (e.g.15 years for RPG) and (2) the emphasis in all definitions of sustainable development on futurity.
- 4.22 In summary, some of the general issues associated with data assembly for plan/programme SEA are:
- a) The selection of SEA methods (e.g. objectives and indicators-led);
  - b) The different data needs for plan/programme making versus conducting the SEA;
  - c) Data availability – quantity, quality, costs and confidentiality (note the access to environmental information regulations<sup>4</sup> which will place requirements on data providers);
  - d) Data format and the use of Geographical Information Systems;
  - e) Uncertainty and bias in data sets;
  - f) Geographic extent of the study area;
  - g) Selection of the future baseline years;
  - h) The detail possible in the specification of options and measures;
  - i) Identifying appropriate assessment/significance thresholds;
  - j) Coping with uncertainty in forecasting (and backcasting<sup>5</sup>);
  - k) The complexity of cumulative effects (between proposals within the plan/programme and interactions with other plans/programmes/projects);
  - l) The reporting of the distribution of effects across the community;
  - m) Plan/programme-specific or sector-specific data issues.

### **Review of Data Demands for SEA by Plan and Programme**

- 4.23 With the large numbers of plans and programmes potentially within the scope of the SEA Directive (see Appendix A) focus for this study has been provided through selection of 25 plans and programmes for particular attention, bearing in mind the following characteristics:
- a) development planning plus related regional/local authority/NDPB plans and programmes (ie, not central government and not all sectoral plans and programmes);
  - b) prominent and wide applicability;
  - c) plans and programmes with unique data needs;

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<sup>4</sup> Since 1992, the public has had a statutory right of access to environmental information held by public authorities and certain other bodies (from EC Directive 90/313/EEC on the freedom of access to information on the environment). A revised regime is expected to be in place during 2002 (see <http://www.defra.gov.uk/environment/pubaccess/index.htm>)

<sup>5</sup> “Backcasting” is a process of establishing the future state and designing to achieve the objectives.

- d) Plans and programmes that address measures that are policy orientated; area-wide; and specific zones).
- 4.24 Table 4.2 lists the 25 plans and programmes, providing details of the plan/programme-making authority, existing plan/programme-making guidance, existing SEA/SA guidance and examples of the plan/programme (and SEA/SA) using those in the South West Region where available.
- 4.25 Analysis of the plans/programme guidance and examples has been undertaken to identify “key topics” - the intention being to indicate one or more topics that are likely to be leading issues in conducting an SEA of this type of plan/programme.
- 4.26 In response a heterogeneous approach to data assembly, the following three tier classification has also been applied to help to characterise the plans and programmes and the data requirements associated with the types of proposals that they would normally contain:
- d) **Policy-orientated** – overarching data baseline data for considering proposals that are not location-specific (e.g. Regional Planning Guidance)
  - e) **Area-wide** - broad characterisation of the entire study area to consider location-specific proposals within a wide geographic extent (e.g. Tourism plans);
  - f) **Specific Zones** – where more detailed assessment may be required to consider local proposals (e.g. corridors within Local Transport Plans). These proposals may be identifiable as projects which, if they proceed, will subsequently require project level EIA.
- 4.27 It is recognised that each type of plan or programme may contain proposals of more than one kind, and perhaps all three, and this is reflected in Table 4.2. Furthermore, the circumstances of a particular plan or programme example may exceptionally contain proposals not normally associated with such a plan or programme of that type, which highlights a limitation of this characterisation.
- 4.28 Other general issues comprise “nesting” and tiering, as well as time horizons and assessment years. Nesting refers to strategic plans and programmes that contribute to other plans, rather than different levels of the idealised planning hierarchy from policies to plans, programmes and finally projects (tiering). Nesting is particularly important for spatial plans which are fed by and provide a spatial expression of other plans including non-statutory plans. Local authority land use plans are a good example of plans which may have other plans or strategies nested within them (e.g. Rights of Way Improvement Plans, Footpath Plans, Community Strategies and Community Care Plans). However, whether a plan or programme is nested (or tiered) in relation to another will not always be clear and may vary between authorities. For example,

some may view the development plan as the planning arm of the Community Strategy while in others the Community Strategy may be nested within the development plan. For each plan and programme shown in Table 4.2, nesting and tiering (with plans/programmes above and below them in the planning hierarchy) are identified as far as it is feasible to do so within this study.

- 4.29 Different plans and programme types will also have different time horizons associated with them (e.g. 20 years for Regional Planning Guidance). These variations will to some extent dictate the assessment years to be covered in the SEA, (i.e. helping to define the point(s) at which future baseline scenarios and prediction of effects will be needed). Furthermore, some may be tied to particular review cycles (e.g. Annual reviews and five yearly revisions for Local Transport Plans) whereas others may be reviewed on an “as needed” basis.

**Table 4.2: Analysis of Plans and Programmes (organised by authorities)**

Plan/Programme Name	Authority	Basis	Current P/P Making Guidance	Current SEA/SA Guidance	Examples (SW focus)	Key Topics	Measures	Other P/Ps nested within	P/P Tiering Above	P/P Tiering Below	Comments
Regional Economic Strategy	Regional Development Agency	Statutory	DETR, 1999c	Sustainability commentary of RES undertaken by South West Round Table for Sustainable Development (now Sustainability South West) plus sustainability appraisal of RES action plans by ERM		Population, Economy	Policy				
Regional Planning Guidance	Regional Assembly	Statutory	DETR, 2000c (PPG11).	DETR, 2000a. EMRA, 2000. Forthcoming DTLR review (Houghton report).		Population, Landscape, Economy, Water, Natural Resources, Biodiversity	Policy	Regional Transport Strategy		Structure Plan	
Regional Transport Strategy	Regional Assembly	Statutory		DETR, 2000a.	See SE RTS (Entec)	Air Quality, Population, Health, Landscape, Biodiversity	Policy			Local Transport Plans	
Regional Waste Strategy	Regional Assembly and Environment Agency	Non-Statutory	DTLR "planning for strategic waste management" R & D			Population, Natural Resources, Landscape, Water, Economy	Policy, Area-wide		Regional Planning Guidance	Waste Local Plan	
Regional Renewable Energy Plan	Government Office	Non-Statutory			Current Study by Terrence O'Rourke and ETSU	Natural Resources, Landscape, Population, Economy	Policy, Area-wide				
Regional Tourism Strategy	Tourist Board	Non-Statutory			A Tourism Strategy for the South West (1999)	Population, Economy, Cultural Heritage, Landscape	Policy				Highlights that action plans (at individual businesses, local, sub-regional and regional scales) need to be developed to implement the strategy.
Single Programming Documents and other plans and programmes supported by EU Structural Funds (after 2006/7)	Region	Statutory	CEC, 1998.	ERM guidance, 1998 "Environmental Profiles"		Population, Health, Economy	Policy, Area-wide, Specific				
AONB Management Plan	Local Authority	Statutory	Countryside Agency, 2001.		Blackdown Hills AONB Management Plan	Landscape, Population	Policy, Specific				Used to be a voluntary plan. Now required by CROW Act 2000. Unlikely to set a framework for future EIA projects. Note, there are 12 AONBs within the SW Region.
Development action plans for smaller areas	Local Authority	Non-Statutory	RPG: Urban Extension Studies Note (supplementary to RPG10)		Plymouth City Council urban extension study	Population, Landscape, Economy	Specific		Regional Planning Guidance, Structure Plan, Local Development Plan		
Health Improvement and Modernisation Programme (Local Health Authorities)	Local Authority	Non-Statutory				Population, Health	Area-wide, Specific				
Local Development Plan (including Unitary Development Plans)	Local Authority	Statutory	DTLR, 1999b (PPG12).	DoE, 1993; Bedfordshire County Council/RSPB, 1996.	UDPs: Plymouth and Torbay	Population, Landscape, Natural Resources, Cultural Heritage, Economy	Policy, Area-wide, Specific	Development action plans for smaller areas, Numerous voluntary PPs	Structure Plan, Regional Planning Guidance		

**Table 4.2: Analysis of Plans and Programmes (organised by authorities)**

Plan/Programme Name	Authority	Basis	Current P/P Making Guidance	Current SEA/SA Guidance	Examples (SW focus)	Key Topics	Measures	Other P/Ps nested within	P/P Tiering Above	P/P Tiering Below	Comments
Local Transport Plan	Local Authority	Statutory	DETR, 2000d and 2000e.			Air Quality, Population, Health, Landscape, Biodiversity	Policy, Area-wide, Specific		Regional Transport Strategy		
Minerals Local Plan	Local Authority	Statutory	Minerals Planning Guidance			Natural Resources, Landscape, Water, Economy	Policy, Area-wide, Specific		Structure Plan		
National Park Management Plan	Local Authority	Statutory			Dartmoor. Exmoor (includes 'state of the park report)	Landscape, Population, Economy	Policy, Area-wide				Unlikely to give rise to projects requiring EIA.
Structure Plan	Local Authority	Statutory	DETR, 1999b (PPG12).	DoE, 1993; Bedfordshire County Council/RSPB, 1996.		Population, Economy, Landscape	Policy, Area-wide	Community Strategy	Regional Planning Guidance	Local Plan	
Waste Local Plan	Local Authority	Statutory			Wiltshire and Swindon, 2001.	Natural Resources, Population, Landscape, Water, Economy	Policy, Area-wide		Regional Waste Strategy		
Combined waste and minerals plan	Local Authority	Statutory			Plymouth and Torbay	Natural Resources, Landscape, Water, Economy	Policy, Area-wide, Specific		Regional Waste Strategy		
Regional Water Resources Strategy	Environment Agency	Statutory				Population, Water, Biodiversity, Economy	Policy, Area-wide		Catchment Abstraction Management Plan		
Catchment Abstraction Management Plan	Environment Agency	Statutory	Environment Agency, 2001a.	Environment Agency, 2001b.		Population, Water, Economy	Policy, Area-wide		Regional Water Resource Strategy		
Catchment Flood Management Plan	Environment Agency	Statutory	Catchment Flood Management Plans - Interim guidance for consultation and pilot catchment studies (February 2001) by Halcrow Water. Modelling and Decision Support Framework (MDSF) by HR Wallingford.		Somerset Levels Pilot Study (Babtie)	Population, Water, Biodiversity, Landscape	Policy, Area-wide			Water Level Management Plan, Flood and Coastal Defence Capital Programme	
Flood and Coastal Defence Capital Programme	Environment Agency	Statutory				Population, Water, Biodiversity, Landscape	Specific		Catchment Flood Management Plan		
Shoreline Management Plan	Environment Agency	Statutory	DEFRA, 2001.			Landscape, Population, Biodiversity	Policy, Specific			Flood and Coastal Defence Capital Programme	
Coastal Habitat Management Plan (CHaMP)	English Nature (with Environment Agency)	Statutory				Water, Biodiversity, Landscape	Policy, Specific				Unlikely to set a framework for future EIA projects.
Water Level Management Plan	English Nature (with Environment Agency)	Statutory	MAFF, 1994			Water, Biodiversity	Policy, Specific			Catchment Flood Management Plan	

**Table 4.2: Analysis of Plans and Programmes (organised by authorities)**

Plan/Programme Name	Authority	Basis	Current P/P Making Guidance	Current SEA/SA Guidance	Examples (SW focus)	Key Topics	Measures	Other P/Ps nested within	P/P Tiering Above	P/P Tiering Below	Comments
Community Forest Plan	Community Forest Directors	Non-Statutory	Countryside Commission, 1990.		Bristol/Avon Community Forest Plan, 1995; Great Western Community Forest Plan.	Landscape, Population, Biodiversity, Natural Resources	Policy, Specific				Unlikely to set a framework for future EIA projects.

## 5. PRACTITIONER PERSPECTIVES

### Local Authorities

- 5.1 Representatives from Local Authorities in the South West were contacted who had previously been involved in strategic environmental assessments, sustainability appraisals and/or environmental appraisals (EAs) of local plans and programmes. The full extent to their involvement ranged from commissioning consultants to carry out sustainability appraisals to conducting sustainability and environmental appraisals. Most had taken a management role; advising, helping and reviewing appraisals, and some had undertaken appraisals based upon Government guidance. The Local Authorities contacted had carried out sustainability and environmental appraisals on:
- a) Mineral plans;
  - b) Waste plans;
  - c) Development plans.
- 5.2 When asked whether the appraisals met the requirements of the SEA Directive, most respondents either did not know or suggested that the appraisals were in line with other Government guidance. In most cases the representatives incorporated environmental, social and economic issues in the sustainability appraisals but there was a notable emphasis on environmental aspects. Mineral plan sustainability appraisals examined predominately environmental and economic issues. In one case, economic issues were prevalent where a new site increased employment opportunities. It was generally felt that social issues relating to plans and programmes were harder to draw conclusions from than environment and economic information.
- 5.3 The availability of appropriate data tended to be a limitation when datasets held by the councils were not regularly up-dated and where Local Authorities did not have the resources to obtain information. The main data gaps identified were as follows:
- a) Complete air quality data;
  - b) Safety and security of data;
  - c) Environmental health issues such as contaminated land data;
  - d) Retail data.
- 5.4 In one case, the appraisal team carried out their own survey to obtain information on wildlife in the area, however, this example was an exception as any data gaps were generally ignored any data gaps due to the lack of resources for such research.

- 5.5 In most cases, Local Authorities had procedural monitoring in place whereby regular data was collected on air quality and noise specific to particular strategies. Where monitoring was examined within appraisals, criteria were drawn up and indicators produced to measure them but in most cases, the monitoring schemes were not implemented due to the lack of council resources.
- 5.6 The other main barriers to the implementation of the SEA Directive recognised by the Local Authorities are:
- a) Resources: Time, Money and Staff;
  - b) Complexity: Need for training, understanding contents, need for guidance;
  - c) Integration: Consideration of plans and programmes already in existence.

### **Consultants**

- 5.7 Representatives from consultancies within the UK were contacted who had previously undertaken or reviewing strategic environmental assessments, sustainability appraisals and/or environmental appraisals at the regional and national level.
- 5.8 The SEA Directive requirements were not addressed in any of the SA's carried out by the Consultants, however, one respondent noted that their work extended beyond the requirements of the Directive where environmental, social and economic issues are not adequately considered.
- 5.9 In all cases, environmental considerations were highlighted as the dominant issues within the SA's. The availability of data was a limitation where consultations revealed knowledge gaps and subsequent surveys was carried out. Where data was received from Local Authorities, it was found by the Consultants not to be regularly updated. The following data gaps were identified by the consultants:
- a) Accessibility data;
  - b) Data availability on community services (e.g. provision of public facilities);
  - c) Social and demographic data out of date.
- 5.10 It was noted that the requirement to monitor is often superseded by weak signals from central government. Where Local Authorities produce large numbers of indicators to monitor effects, in reality only a small proportion of these are selected where data is readily available. From experience, the respondents suggested that creating a way of integrating the data collected by separate organisation would reduce the resource constraints often faced by Local Authorities. This may be a role for the emerging Regional Observatories.

- 5.11 The barriers to the implementation of the SEA Directive identified by the Consultants can be categorised as follows:
- a) Guidance – need new improved guidance and need guidance on the integration between SA and SEA;
  - b) Education and Training.

### **Academic Institutions**

- 5.12 Representatives from academic institutions were interviewed about their involvement with strategic environmental assessments, sustainability appraisals and environmental appraisals. Experience ranged from researching, reviewing and advising SA and SEA, only one respondent had undertaken sustainability and environmental appraisals. Generally, research undertaken was at the local, regional and national level. The following areas relating to SEA, SA and EA had been researched and reviewed:
- a) Guidance;
  - b) Decision Making;
  - c) Development Plans.
- 5.13 When asked whether any SEAs, SAs or EAs reviewed had incorporated the requirements of the SEA Directive, the respondents differed on their responses on the ease of meeting the Directive. In terms of process, one respondent noted that the SEA requirements had been met to a large extent where the SA had included public consultation.
- 5.14 The respondents discussed the availability of appropriate data as a limitation on a more general level. Research and reviews have shown data to be a limitation where there are inconsistencies, particularly with spatial information. One respondent identified some essential issues for plan/programme SEA: global issues, such as transport, buildings and biodiversity; local issues, such as air, water and land; social issues such as the provision of space, health and equity issues such as accessibility, and economic issues. The main data gaps were identified in social and health areas.
- 5.15 Difficulties in implementing a monitoring framework were discussed. One respondent recognised the difficulty in monitoring impacts when companies withhold valuable data (e.g. energy companies). The need to introduce a stakeholder forum was suggested and an example of the LA21 grants in Australia which have created a public NGO forum for monitoring indicators was given. The use of indicators for the purpose of monitoring was highlighted as a concern particularly where indicators only deal with primary issues without revealing how the effects of plans and programmes are distributed.

- 5.16 One of the main barriers to the implementation of the SEA Directive recognised by the respondents was its ability to integrate into the practice of the current appraisal system. In particular, one respondent noted the differences between the prescriptive nature of the Directive and the well-defined sustainability appraisal system. The success of the implementation of the Directive was considered to rely upon education and training as well as the 'will' of Local Authorities and other authorities to develop an effective-SEA component as part of the process. Inadequate resources are secondary to this.

### **Statutory Bodies**

- 5.17 Representatives from Statutory Bodies were interviewed to discuss their experience with strategic environmental assessment, sustainability appraisals and/or environmental appraisals. Experience was mainly in reviewing sustainability appraisals at a regional level with regard to their emphasis on biodiversity issues.
- 5.18 The importance of carrying out SEA to inform plans and programmes was recognised as an important element to meet with the requirements of the Directive as often SAs are undertaken too late in the plan and programme making process.
- 5.19 Inadequate reporting of the distributional effects of environmental, social and economic issues were highlighted in existing SAs, in particular, social and health issues. For example, accessibility to services may be reported as generally improving over a plan/programme area, thus masking the potentially wide variation between "winners and losers" in different localities and/or social groups.
- 5.20 Initially, appropriate data wasn't seen as a limitation, however the SAs reviewed revealed gaps with spatial data and information on regional sustainable development. The use of objectives, it seemed, reduced the limitations caused by assessments based on topic identification.
- 5.21 Statutory Bodies may be part of the monitoring framework imposed by the SEA Directive. Currently the 'National Biodiversity Network' is a method of distributing and sharing information. There is a concern, however, that studies will be based on data sets already available causing the slow development of new datasets. The co-ordination between all organisations and authorities is imperative to the success of monitoring schemes and the implementation of the SEA Directive, again highlighting a potential role for Regional Observatories.

5.22 There is apprehension ahead of the magnitude of work initiated by the implementation of the SEA Directive and it is recognised that a SEA carried out properly will promote efficient use of resources creating a more robust approach to assessment of plans and programmes. This can only be achieved with appropriate training and education.

### **Not-for-Profit Organisations**

5.23 The charitable organisations contacted were mainly involved in discussions, negotiations and reviews of strategic environmental assessments and were able to comment on the current appraisal system and identify the issues surrounding the implementation of the SEA Directive.

5.24 With regards to the appraisal framework, the respondents identified appraisal systems' inability to effectively cope with balancing effects of social, economic and environmental issues.

5.25 The use of a systematic approach for collecting data was identified as a way to overcome the problem of finding appropriate data, informed by practitioners' experience and understanding.

5.26 The main barriers to the implementation of the SEA Directive identified by the respondents were:

- a) Political will;
- b) Data requirements;
- c) Training;
- d) Financial resources;
- e) Establishing communication networks with other regions.

### **Summary of Key Issues**

5.27 The following key issues can be drawn from the consultations with practitioners:

- a) Availability of appropriate data sets is a concern because often datasets are not regularly updated. This was attributed to lack of resources in some cases;
- b) Specific dataset gaps are in relation to up to date social, health and economic topics (e.g. reliance on 10+ year old census data);
- c) 'Lack of political will' to generate guidance and push for good practice in SA and SEA was a concern amongst a wide variety of practitioners;
- d) In some cases the scope of SA objectives are biased towards topics which the practitioner is aware of data available;

- e) Cases of political bias in SA were reported (e.g. where the scope of the appraisal was steered to avoid having reported negative effects as a result of certain plan/programme measures);

## 6. DATA AVAILABILITY IN THE SOUTH WEST FOR SEA

### Introduction to the Metadata Tables

- 6.1 Metadata is “data about data” and provides a record of the attributes of individual datasets. This chapter contains the results of the investigations into the availability of datasets for undertaking plan/programme SEA including consultation with data providers in the South West Region via members of the Regional Observatory<sup>6</sup> and Strategic Information Providers Network<sup>7</sup>. The datasets themselves have not been obtained or reviewed, rather the objective has been to compile metadata in relation to datasets of potential use in plan/programme SEA. The task has been limited by the short timescale for this study but nevertheless provides a useful overview of some of the datasets available in the South West from which a comprehensive database can be assembled and updated.
- 6.2 Following an examination of existing guidance on metadata to ensure that standard approaches are adopted, Table 6.1 was assembled to list the metadata field for each dataset investigated. Fifteen fields were identified, many of which reflect those suggested in the guidelines from the Association for Geographic Information (AGI, 2001). A further five study-specific fields were included.
- 6.3 More than 160 individual datasets were identified and these are summarised in Table 6.2. It was possible to collect metadata details for some of these but there are also many datasets which have been identified but for which metadata was not been obtained. The identification of additional datasets, compilation of missing metadata and further analysis of the datasets is a further task beyond the scope of this short study.

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<sup>6</sup> Regional Observatories are umbrella organisations set up to provide shared intelligence across each region. In the South West Region it comprises Environmental Public Health, Skills & Learning, Business Economy and Land Use Modules. See <http://www.swpho.org.uk/southwestobservatory>

<sup>7</sup> The Strategic Information Providers Network is comprised of the Regional Assembly, County Councils/Unitary Authorities, the Environment Agency, the Government Office of the South West and the Regional Development Agency. It is charged with the development of indicators for monitoring policies in the Regional Planning Guidance and collection of data at their level of government/organisation.

**Table 6.1: Metadata Fields**

	Field	Data Type	Domain (i.e. specific values)
General fields	1. Title	Text	Free text
	2. Description	Text	Free text
	3. Owner (organisation name)	Text	Free text
	4. Primary supplier (organisation name) (may be as 3.)	Text	Free text
	5. Primary supplier contact name	Text	Free text
	6. Primary supplier Tel/Email	Text	Free text
	7. Secondary supplier (website) if applicable (e.g. askGiraffe)	Text	Free text
	8. Frequency of update	Enumerated List	Hourly, Daily, Weekly, Fortnightly, Monthly, Quarterly, Biannually, Annually, Biennially, Triennially, Quinquennially, Decennially, Continuous, Irregular, Never, Not Known, Other
	9. Archive (time series available)	Text	Free text
	10. Data Format	Enumerated List	Spatial Digital, Non-Spatial Digital, Spatial Non-Digital, Non-Spatial Non-Digital
	11. Presentation type	Enumerated List	Image, Graphic, Map, Numeric, Text, Other
	12. Geographic Extent (e.g. National, local authority)	Text	Free text
	13. Scale/Resolution	Enumerated List	1:1,000,000, 1:1,250, 1:10,000, 1:100,000, 1:2,500, 1:200,000, 1:25,000, 1:250,000, 1:50,000, 1:500,000, 1:625,000, 100m, 1km, 25m, 50m, Not applicable, Unknown
	14. Availability	Enumerated List	Now, Future (by end 2002), Future (by end 2005), Future (by end 2010), Future (unknown when)
	15. Access Constraint	Enumerated List	Financial, Legal, Other, Not Known, None
Study-specific commentary fields	16. Any experience of the usefulness for SEA/SA	Enumerated List	Poor, OK/Best Available, Good, Unknown
	17. Forecasting potential (e.g. to project a future baseline)	Enumerated List	Poor, OK, Good, Unknown
	18. Relevance to Topic(s)	Enumerated List	Biodiversity (including Flora and Fauna), Soil, Water, Air, Climatic Factors, Cultural Heritage, Landscape, Natural Resources, (Human) Health, Population, Material Assets, Economy
	19. Suitability for: "policy orientated", "area wide" and/or "specific zones" plan & programme measures?	Enumerated List	Policy (orientated), area wide, specific (zones)
	20. Other comments	Text	Free text

6.4 As well as the individual datasets listed in Table 6.2 and the activities of the Regional Observatory and Strategic Data Providers Network in the South West, there are ongoing initiatives to develop cross-cutting data reporting exercises and metadata/data access tools which may also be relevant to SEA practitioners. Examples include:

- a) **AskGiraffe** ([www.askgiraffe.org.uk](http://www.askgiraffe.org.uk)) is a web site gateway aimed at increasing awareness and access to geographical information in the UK. Funded by Government through the National Interest Mapping Services Agreement. AskGiraffe is a not for profit organisation, set up specifically to address geographic information industry-wide problems where no commercial driver exists. AskGiraffe currently offers two interactive online services, the Data Locator and the Data Integrator.

- b) **MAGIC** (Multi-Agency Geographic Information for the Countryside) is an example of partnership working between government departments and agencies (DEFRA, DTLR, English Heritage, the Countryside Agency, the Forestry Commission and English Nature). It aims to bring together definitive versions of key rural and countryside data and provide web-based GIS tools for accessing the information. The MAGIC website is currently under development ([www.magic.gov.uk](http://www.magic.gov.uk)).
- c) **NESS** (Neighbourhood Statistics Service) ([www.statistics.gov.uk/neighbourhood](http://www.statistics.gov.uk/neighbourhood)) is a new service being developed by the Office for National Statistics in partnership with central and local Government and many others. The Neighbourhood Statistics Service is the outcome of the consultation report of Policy Action Team 18: "Better Information", published in April 2000 as part of the National Strategy for Neighbourhood Renewal. The website provides data at a ward or local authority levels across nine domains (Access to Services; Community Well-being/Social Environment; Crime; Economic; Education, Skills and Training; Health; Housing; Physical Environment; Work Deprivation).
- d) **Annual indicator reports** at the regional scale (e.g. Environment South West) down to the district or city scale (e.g. Bristol City Council's annual sustainability indicator report, 2001 which summarises key data across 14 topics).

### Data Utility for SEA

- 6.5 Notwithstanding the limitations of this short study in identifying a comprehensive list of potentially relevant datasets, the following tentative comments can be made on the currently available data for plan/programme SEA in the South West:
- a) **Data availability and coverage is improving.** This may be in response to the increase in environmental and sustainability reporting and assessment/appraisal activity at all levels as well as specific regulations and responsibilities of public bodies.
  - b) **Data sharing and multiple data providers is expanding.** Linked to the above point, custodian and data sharing arrangements are becoming more common. It is therefore very important to clearer identify data ownership and data supplier details to avoid problems or confusion associated with data ownership and supply arrangements for SEA practitioners. (This accords with the recommendations of both the RCEP, 2002 and West Midlands Sustainable Development Plans Group, 2002).
  - c) **Awareness and experience of the specific data requirements of plan/programme SEA is generally poor.** The limited use of data in SA to date may be a handicap to generating this understanding amongst data providers and plan/programme authorities.
  - d) **The future availability of datasets is difficult to predict.** Future availability may be more certain where data collection is linked to a statutory provision. In other cases, even

where held by public bodies, data availability may be vulnerable to changing management priorities and other constraints.

**Table 6.2: Summary of Datasets Identified by Topic**

Topic	Example Datasets
Air	Air quality monitoring IPC schedule B Sites; LAQM System Review and Assessment reports; AQMA Website; Automatic Urban and Rural Network (AURN)
Biodiversity	Local Site of nature conservation importance/Sites of Nature Conservation interest (SNCI); West Somerset District Biodiversity Action Plan; SERC Site Data; SERC Recorder database; Biodiversity Action Plan Database; Countryside Information System; Natural Areas in the South West; Special Protection Areas (SPAs); Local Nature Reserves; Special Areas for Conservation (SACs); Ramsar Sites; Ancient Woodland; Sites of Special Scientific Interest (SSSIs); Species data
Climatic Factors	Dorset's Climate
Cultural Heritage	Register of Parks and Gardens; Historic battlefields; National Monuments Record; Sites and Monuments Record; Maritime Archaeology; Listed Buildings; World Heritage Sites; Monument Protection programme; World Heritage Site Management Plans
Economy	House completions; Distribution of Tourist Accommodation; Income from Tourism; Annual Employment Survey; Paycheck - incomes by postcode; Spending Power Summaries; Employment and Earnings Statistics; Consumer Trends
Health	Incidence of Asthma in Dorset; Radioactivity in Dorset; Radon in Dorset; Vital Statistical Tables on CD-ROM; Health Statistics Quarterly; Geographic Variations in Health in the United Kingdom; Radioactivity in the Environment; Dorset Road Casualties; Health and Social Needs Analysis Group Stats at Ward Level
Landscape	Local Area of Landscape Value; Land Cover map of Great Britain; Areas of Outstanding Natural Beauty; Countryside Character, volume 8: South West; National Parks; Heritage Coast; Areas of great landscape value; Cities Revealed Bristol; Village Greens; Natural Environment; Recreational Open Space; Conservation Area - Local Plan; Coastal preservation areas; Landmark's Systematic Analysis Data; New Life for old trees - the Somerset Veteran Trees Project; The Character of England: Landscape, wildlife and natural features; Section 3 Woodland
Material Assets	Agricultural land parcels; Brownfield/Greenfield Developments in Dorset; Land use; Agricultural land Classification; Distribution of Holdings; Agricultural Land Use in Dorset; Development on brownfield sites/greenfield sites; FOCUS - On-Line Services;
Natural Resources	Renewable Energy in Dorset; Development of the Oil and Gas Resources of the United Kingdom; Dorset's Energy Consumption 1995; United Kingdom Environmental Accounts (in UK National Accounts); Mineral Sites and Environmental Designations in Dorset

**Table 6.2: Summary of Datasets Identified by Topic**

Topic	Example Datasets
Population	Tranquil area maps; Road Traffic Accidents; Number of Tourists; Social Inequalities; Ordnance Survey OSCAR Traffic-Manager; SOP Areas; Service Sites; Housing Development in Dorset; Projections of Households in England to 2021; Year 2000 demographics; Crime Incidents in West Somerset 1998-1999; Rights of Way; Local environmental quality survey results; Parish and ward population estimates; Key Statistics for Urban and Rural Areas Great Britain; Housing Deprivation and Social; Office of Population Censuses and Surveys report 1991 Census – Key Statistics for Local Authorities; Small Area Statistics Census Prospectus; FOCUS on Roads; Population Estimates England and Wales; Focus on Crime; Twenty Year Traffic Growth; All vehicle Traffic Growth and Forecasts; Seasonal Annual Traffic Profile 1997; Mileage of Road, Railway Track, Bus lanes, cycleways and rights of way; Lifestyle data for UK; Noise in Dorset; Workforce Population; Housing land availability and housing forecasts; Migration; Local Plan DevLimit; New Earnings survey occupational analysis, Labour force survey; Rural trends report; Social Trends; Monthly Digest of Statistics; FOCUS - Town FOCUS Advanced; Rural Services data; StreetValue - house prices by postcode; Town Profiles; Agricultural Labour Force; Rural facilities data; Traffic Volumes; Key Population and Vital Statistics; Railways and canals (3rd edition OS )
Soil	County Geological Sites, Somerset; Soil Survey NATMAP100; Regionally Important Geographically Sites; Soil Survey NSIprofile
Water	Environmentally Sensitive Areas; Nitrate Sensitive Areas (NSAs); Nitrate Vulnerable Zones (NVZs); Groundwater vulnerability maps; Water Resources for the Future: a strategy for the South West Region, 2001; Indicative floodplain maps; Public water supply intake locations; Geomorphological catchment baseline studies; Nitrate Vulnerable Zones in SW Region (& 10k buffer) at 25,000; Catchment Abstraction Management Strategies Borders; GQA River Network; IFM 2000 Fluvial Floodplain; IFM 2000 Tidal Floodplain; IFM 2000 Centreline; Nitrate Sensitive Areas in SW Region (& 10k buffer) at 25,000; RE Class information; Bathing water compliance; Source Protection Zones; Public water supply borehole locations

## Data Gaps and Implications for SEA

- 6.6 Analysis of Table 6.2 alongside Table 4.1 (showing a working list of topic coverage in SEA) identifies that there is dataset coverage relating to all topics. One perspective is on the rural versus urban dataset coverage. Whilst topics such as biodiversity may be more dominant for plans and programmes in a rural setting, urban areas may be identified as specific zones requiring a finer level of assessment detail due to the concentration of population and other features (e.g. cultural heritage and material assets). Although there are a proliferation of existing indicators and evaluations of individual urban renewal and regeneration programmes, they do not provide a comprehensive picture on why urban areas are changing and the causes. This issue has been recognised in a current DTLR initiative to produce an evaluation strategy for urban policy in support of the Urban White Paper (2000) (see DTLR, 2002).
- 6.7 A headline analysis of data gaps and future needs by individual topics is provided in Table 6.3.
- 6.8 In broad terms the implication of data gaps for SEA is less robust decision making. In simple terms, options for dealing with gaps when undertaking the assessment:
- a) Collect primary data (unlikely to be achievable/warranted for SEA);
  - b) Revert from data-led to “expert judgement”;
  - c) Recognise that data gaps will always exist and address the uncertainties and risks that result; and/or
  - d) Defer issues for consideration at a later stage (e.g. next plan/programme cycle or subsequent project EIA).
- 6.9 To achieve transparency in the decision making process (as required by the SEA Directive) such uncertainty should be clearly identified and “carried forward” to the decision-maker and subsequent assessments (including EIA’s for project development consents). The proper recording of uncertainty is however notoriously poorly addressed in EIA practice and therefore needs to be given a high priority in the development of SEA practice (Tomlinson, 2001b).
- 6.10 Expert opinion doesn’t necessarily devalue SEA/SA providing the experts are part of a wider group so impacts and their significance can be discussed and those responsible have appropriate backgrounds/professions. Since data quality and coverage will never be perfect, one means to help compensate for this is stakeholder involvement. Wide stakeholder involvement will help to identify the full range of impacts and highlight the significance attached to them.

**Table 6.3: Data Gaps and Possible Future Needs**

<b>Topic</b>	<b>Data Gaps and Possible Future Needs for SEA</b>
<b>Biodiversity, Flora and Fauna</b>	The practical use of natural areas datasets in SEA is unproven and it may be that development/re-aggregation to form a dataset/objectives/indicators between that and individual sites could be of most use in area wide SEA. The establishment of a national biodiversity network may help.
<b>Soil</b>	No issues identified.
<b>Water</b>	Datasets relating to the water environment tend to be one-dimensional (e.g. flooding, water quality, or river habitat) and thus require careful selection if only a limited range of indicators are to be used.
<b>Air</b>	Datasets for local air quality and emission factors need to be used and interpreted carefully in SEA to avoid incorrect conclusions from being drawn.
<b>Climatic Factors</b>	Sectoral and regional translation of climate change related greenhouse gas emissions, temperature change and rainfall targets.
<b>Cultural Heritage</b>	Existing cultural heritage data tends to be building/site-specific or cover local areas (e.g. conservation areas). A broader scale aggregated dataset may be more appropriate for area wide SEA considerations.
<b>Landscape</b>	Interpretation of landscape value and plan/programme effects on the wider landscape (i.e. outside AONBs and national parks) is problematic based on existing datasets.
<b>Natural Resources</b>	Re-focussing datasets towards resource efficiency (rather than use and waste arisings) may assist SEA.
<b>Health</b>	Experience of the use of health data for wider assessments is lacking. Whilst powerful databases exist covering numerous datasets there is a need to develop methods to best make use of them in SEA. Another issue is one of data coverage as in addition to standard nationally available datasets, there are a wealth of secondary health studies and datasets for specific locations (e.g. in the grey literature). Improvements in this area should be led by the Public Health Observatory.
<b>Population</b>	Whilst demographic and social datasets exist (e.g. census), there is demand for it to be made available in a more appropriate form for conducting a review of distributional effects across SEA topics. Improvements in this area are best addressed by the social appraisal community.
<b>Material Assets (excluding natural resources)</b>	Basic and reliable information on greenfield and brownfield sites is cited by practitioners as a gap in some local authority areas.
<b>Economy</b>	Economy has been one of the most difficult topics to get to grips with in Sustainability Appraisal practice to date. There are a lack of appropriate methods for using available datasets to determine wider economic impacts. Improvements in this area are best addressed by the economic appraisal community, perhaps through the Business Economy Module of the Regional Observatory.

## 7. DATA REQUIREMENTS FOR SEA MONITORING

### Generic Issues

- 7.1 The issue of post-decision monitoring in SEA is not well understood and the subject of ongoing research (e.g. through TRL's sponsorship of a PhD at the University of Manchester). In order to generate most value for the plan and programme authorities, consideration needs to be given to what type and level of monitoring is desirable and what is achievable. Monitoring may take a process-focus (e.g. monitoring implementation) or actually attempt to consider environmental and community outcomes (e.g. monitoring effects). The latter will tend to have greater demands for data and will require the selection of indicators to compliment those used in the assessment. All types of SEA monitoring may have to contend with the long plan and programme time horizons and the difficulty of working across multiple parties involved in plan/programme implementation.
- 7.2 Government guidance on the preparation of Regional Sustainable Development Frameworks (RSDFs) states, "*Regional sustainable development objectives set out in the framework will provide common and agreed starting points for revisions to, and sustainable development appraisals of, other regional strategies and policies*" (DETR, 2000, page 7). According to this guidance, RSDFs should identify indicators linked to its objectives that should be monitored over time (this could be co-ordinated by the SWRA). These indicators will measure change for a series of issues (reflecting the breadth of the sustainable development agenda) and, collectively, paint a picture of change within the region over time. This picture provides the context in which plans and programmes prepared in the South West will operate. As such, the RSDF indicators may be viewed as '**contextual**' indicators'. Providing these indicators were monitored over time and reported at regular intervals, they would provide a useful baseline for SEAs/SAs, particularly those at the most strategic levels (e.g. RPG, RESs, sub-regional strategies).
- 7.3 For the purposes of the Article 10(1) of the SEA Directive<sup>8</sup>, plan and programme proponents must identify 'output' indicators which measure the significant environmental effects induced by the plan or programme itself. The significant environmental effects will be identified as part of the SEA/SA process and should subsequently be reflected in the indicators proposed. For the purposes of RPG, recent government guidance proposed a national set of RPG output indicators in order to facilitate inter-regional comparison (DTLR, 2001b). For example, 'Area

(ha) of river or coastal floodplain lost to new development by county or unitary planning authority'. It is important at this point to clearly distinguish between output indicators which measure actual changes on the ground and 'process' indicators which monitor the means through which a plan or programme is implemented (e.g. an RPG process indicators for biodiversity could be the 'number of districts having prepared a Local Biodiversity Action Plan') Ideally, all indicators should be linked to explicit targets.

7.4 Importantly, Article 10(2) of the SEA Directive states that in order to comply with Article 10(1), "existing monitoring arrangements may be used if appropriate, with a view to avoiding duplication of monitoring". For example, if the statutory environmental agencies in the area covered by the plan or programme in question already monitor relevant indicators, then these could be incorporated into the monitoring programme for the plan or programme and thus save on resources.

7.5 Other general difficulties relating to monitoring in SEA are:

- a) Identifying and ring-fencing the resources for monitoring some way in the future;
- b) Difficulty in showing cause and effect;
- c) Responsibilities for monitoring and seeing that it is done, particularly where effects extend across administrative boundaries;
- d) Ensuring appropriate end-use of the monitoring information that is collected.

### **Specific Monitoring Issues**

7.6 The following specific comments can be made regarding data requirements and availability for SEA/SA monitoring:

- a) Local air quality is an example of a topic where monitoring systems are developing but where cause and effect from plans and programmes will be very difficult to determine as will "downstream" consequences for human health and ecosystem integrity;
- b) Noise (population topic) monitoring for SEA needs to be considered in light of the development of the UK's ambient noise strategy;
- c) Difficulties may arise in collecting monitoring data from private companies such as in relation to the water and natural resources topics (e.g. energy);
- d) Monitoring connected with core local authority activities (e.g. in land use planning as required by PPG12, DETR, 1999b) could provide relevant data for other relevant plans and programmes if their scope can be widened where necessary.

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<sup>8</sup> "Member States shall monitor the significant environmental effects of the implementation of plans and programmes in order, *inter alia*, to identify at an early stage unforeseen adverse effects, and be able to undertake appropriate remedial action" SEA Directive Article 10(1).

## 8. CONCLUSIONS

8.1 This brief study has highlighted a series of important issues of relevance to national, regional and local scales. These issues are fundamentally associated with the necessary commitment of all parties involved in SEA/SA and environmental data assembly to develop a cost-effective and consistent approach. The danger of having inconsistencies in data sets is that it will lead to the partial coverage of topics and that SEA/SAs will not be able to deliver a robust output across all parts of the region or country, laying the system open to challenge.

8.2 Among the key issues identified by the study are:

- a) Data availability in terms of quality and coverage will never be perfect. One means to compensate for this in the SEA/SA process is to involve stakeholders with a wide range of backgrounds and perspectives. In this way, the majority of impacts will be identified and the varying degrees of significance attached to them can be gauged;
- b) The critical importance of the interpretation of Article 5(2) of what is “reasonable” information to include in an SEA Environmental Report (including relationship with other levels of hierarchy including EIA) in driving data needs for SEA;
- c) Whether assessment methodologies should drive the data assembly process or the other way around;
- d) The importance of indicators will increase as the decision-making hierarchy is ascended. The level of abstraction will become such that assembling a detailed picture of the baseline may become difficult and inappropriate;
- e) There may be an inappropriate scale or level of aggregation of datasets to inform the assessment of “area wide” plan/programme proposals;
- f) Addressing the issues associated with confidentiality and the limitations of the Access to Environmental Information Regulations in the context of SA and SEA data domains;
- g) The geographic overlap of plans and programmes which gives rise to potential efficiencies in data assembly and analysis but could also generate inconsistencies;
- h) There is little experience of post-decision monitoring for plan and programme SEA from which to draw lessons in implementing the Directive;
- i) Differences in the baseline data requirements between each plan/programme exist in terms of topics covered, scale/level of detail, coverage etc. This will place a limit on the efficiencies that can be gained by promoting generic approaches to defining data needs.

## 9. RECOMMENDATIONS

9.1 The following recommendations are made in light of the conclusions of this study:

### ***Recommendations for Phase 2***

- a) Explore existing examples of plans that have had an “Appropriate Assessment” under the provisions of the Habitats Directive to explore how such assessments might be integrated into plan/programme SEA;
- b) Explore one or more examples of the timing and requirements for SEA in relation to nested plans and programmes within the range of pilots (e.g. a local authority development plan and its feeder strategies);
- c) Use phase 2 to assist the regional (e.g. Regional Observatories) and national (e.g. MAGIC) initiatives to develop a framework for aiding data processing and co-ordinating its availability and promote consideration of data pedigree for SEA amongst data providers in support of the Royal Commission for Environmental Pollution’s and West Midlands Sustainable Development Plans Group conclusions (RCEP, 2002; West Midlands Sustainable Development Plans Group, 2002);
- d) Use the South West RSDF as a starting point for scoping the SEA pilots in phase 2 to focus efforts on ensuring its objectives are ‘underwritten’ with good baseline data and have appropriate, measurable indicators attached to them;
- e) If possible, use one or more pilot study to investigate post-decision SEA monitoring in a practical context;
- f) Further investigation is required to build up a robust view of the utility and limitations of individual datasets for SEA. This should be seen as an ongoing activity and may not become comprehensive until many more SEAs have been undertaken;
- g) Use the pilot studies to consider the influence of sector-specific technical scope and sector-specific policy/plan/programme/project hierarchies over the appropriateness of SEA procedures, methods (and data requirements).

### ***Wider Recommendations***

- a) Improve the organisation of and accessibility to existing metadata databases and raise awareness of their existence;
- b) Government to define how the relationship between SEA (under the Directive) is to operate and integrate with SA and other appraisal practice. This may be through a “wide” definition of SEA topic-scope to incorporate SA requirements or a “narrower” definition of SEA topic-scope which would involve SEA working alongside other appraisal activities to

fulfil different additional needs. This question should be considered on a plan/programme-specific or sector-specific basis.

- c) Explore further the potential links between the implementation of the Water Framework Directive and the SEA Directive;
- d) Investigate the feasibility of developing Regional/UK-wide databases of environmental protection objectives for SEA;
- e) Promote awareness of the differences between SEA and SA amongst local authorities;
- f) Develop guidance and promote awareness of appropriate treatment of uncertainty in SEA;
- g) Develop methods by which future baseline conditions can be established for different assessment years;
- h) Review the scope of monitoring requirements for SEA by plan/programme type alongside the associated resource requirements for the plan/programme authority and/or others involved in undertaking the monitoring;
- i) Provision of training, guidance and resources to identify, use and assess the robustness of assessment data.

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## **APPENDIX A**

### **Provisional List of Plan and Programme Coverage**

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## **EC DIRECTIVE ON ENVIRONMENTAL ASSESSMENT OF PLANS AND PROGRAMMES (2001/42/EC): UK PLANS AND PROGRAMMES WHICH MAY BE COVERED (Source: DTLR)**

### Introduction

This is a provisional list of plans and programmes which PD5a/DTLR considers likely to be subject to the Directive. They are grouped under the authorities responsible for them, showing where more than one authority is involved.

At this stage the list omits plans and programmes which apply only in Scotland, Wales and Northern Ireland. The Devolved Administrations have separate work in hand to identify these.

#### 1.1 Local authority development plans under present arrangements (TCPA/1999 Regs - England) (current numbers for plans in England – total 488)

##### Structure Plans (40)

Local Development Plans (286)

Unitary Development Plans Parts 1 and 2 (74)

Minerals Local Plans (28 including National Parks)

Waste Local Plans (28 including National Parks)

Combined waste and minerals plans (25)

National Park Management Plans (7)

#### 1.2 Other current local authority plans

The following are statutory plans which may be subject to the Directive, at least to the extent of needing screening for significant environmental effects under Art 33 or 3.4.

Community Strategies

Local Transport Plans

Local Air Quality Action Plans

Rights of Way Improvement Plans

Footpath Plans

Home Energy Conservation Act Reports

Community Care Plans

Control of Major Accident Hazards Plans

Waste Recycling Plans

Health Improvement and Modernisation Programmes (Local Health Authorities)

#### 1.3 Local authority land use/development plans under Green Paper proposals

Local Development Frameworks (area wide)

Action plans for smaller areas (e.g. for major renewals or developments, neighbourhoods or villages)

Minerals and waste plans (at county level)

#### 2.1 Regional plans

Regional Planning Guidance (current)

Regional Sustainability Strategies (proposed)

Regional Economic Strategies

Regional Transport Strategies

Single Programming Documents and other plans and programmes supported by EU Structural Funds (after 2006/7)

#### 2.2 London

Spatial Development Strategy

### 3.1 Central Government plans and programmes

(Partial list – to be elaborated)

#### DTLR

Regional Regeneration Programmes  
Urban White Paper Implementation Plan  
10 Year Transport Plan

#### DEFRA

National Air Quality Strategy  
National Waste Strategy  
England Rural Development Programme  
Development plans for fisheries harbours  
Offshore Waste Disposal Plans  
Nitrates Vulnerable Zone Action Programme

### 4.1 Plans and programmes of Non-Departmental Public Bodies

*Many of the following NDPB plans and programmes are non-statutory, but they may be caught by the Directive on the basis that they are required by administrative provision, i.e. specified in instructions or agreements or needed to comply with the organisation's remit.*

#### Environment Agency (England and Wales)

The Agency considers the following likely to fall within Directive. A number of these plans and programmes are likely to be tiered or "nested" in relation to each other, so full EA may not be needed in all cases.

Local Environment Agency Plans (132 – one for each LEAP area – but may be integrated with Community Strategies in future)

*Catchment Flood Management Plans (80-100)*

*Flood and Coastal Defence Strategies (numerous)*

*Flood and Coastal Defence Capital Programme (1 national programme)*

*Flood and Coastal Defence Maintenance Programmes (26 – one for each Agency area)*

*National Water Resources Strategy*

*Regional Water Resources Strategy (8 – one for each Region)*

*Catchment Abstraction Management Strategies (136)*

*Recreation Strategies and Action Plans (1 national, 8 regional)*

*Navigation (Waterways) Plans*

*River Basin Management Plans*

*Fisheries Action Plans (being piloted)*

Other Agency Plans and programmes which may need screening or full EA:

*Shoreline Management Plans (SMPs)*

*Water Level Management Plans (WLMPs)*

*Water Resources Capital Programmes*

*Water Resources Revenue Programme*

*Navigation Capital Programme*

*Navigation Revenue Programme*

*Fisheries Capital and Revenue Programme*

*Conservation / Ecology Strategy*

*Conservation / Ecology Capital Programme*

*Conservation / Ecology Revenue Programme*

*Revenue Programme*

*Environmental Protection Capital Programme (EPA Part 1A)*

English Nature (with other conservation NDPBs)

River Conservation Strategies for Special Areas of Conservation  
River SSSI Conservation Strategies  
Management Plans for National Nature Reserves  
Water Level Management Plans (with Env Agency)  
Coastal Habitat Management Plans (CHaMPs) (with Env Agency)

5. Sectoral plans and programmes

The following are mainly generic types rather than specific plans and programmes. They are intended to illustrate how the Directive might apply to plans and programmes in the economic sectors listed in Art 3.2(a), including those of regulated utilities formerly in the public sector.

No assumption is made here as to the extent to which plans/programmes such as these may be “required by legislative, regulatory or administrative provisions” (Art 2(a)).

National and regional roads programmes (e.g. Targeted Programmes of Improvements)

Transport infrastructure plans or programmes for construction or expansion of:

railway or tramway networks  
ports, harbours, inland waterways  
airports

Major transport infrastructure projects, e.g. Channel Tunnel Rail Link, would probably be considered as plans or programmes because of their size, complexity and linkage to related developments such as other transport connections, proposals for location of industrial and urban development, etc.

Energy plans or programmes, including:

Programmes for power generation above the level of individual projects.

(This will cover fossil, nuclear and renewable generation – wind, wave and solar power could not be excluded on the grounds that they are more environment-friendly.)

Construction or expansion of distribution networks  
Offshore oil and gas licensing rounds

Telecommunications licensing (for companies with statutory undertaker powers)

Water plans or programmes, including:

Water Resource Strategies  
Water company infrastructure or abstraction plans

The agriculture, forestry, fisheries and tourism sectors are included in the Directive’s core scope for which EAs will normally be required. But many plans and programmes in these sectors will not “set frameworks for development consent of projects”, i.e. they will not give rise to projects (whether construction or other activities subject to consent regimes). In these cases the Directive may not apply.

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## **APPENDIX B**

### **Key Drivers for SEA Topic Coverage**

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**Table B.1: SEA Directive Topics (Annex 1, item f) (CEC, 2001)**

*“...the likely significant effects on the environment, including on issues such as...”*

<ul style="list-style-type: none"> <li>▪ Biodiversity</li> <li>▪ Population</li> <li>▪ Human Health</li> <li>▪ Fauna</li> <li>▪ Flora</li> <li>▪ Soil</li> <li>▪ Water</li> <li>▪ Air</li> <li>▪ Climatic Factors</li> <li>▪ Material Assets</li> <li>▪ Cultural Heritage</li> <li>▪ Landscape</li> <li>▪ AND the interrelationship between the above factors</li> </ul>
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**Table B.2: Quality of Life Counts Indicator Topics (Reflecting UK Sustainable Development Strategy Framework) (DETR, 1999a)**

SUSTAINABLE ECONOMY	<ul style="list-style-type: none"> <li>• Doing more for less: improving resource efficiency</li> <li>• Economic stability and competitiveness</li> <li>• Developing skills and rewarding work</li> <li>• Sustainable production and consumption</li> </ul>
BUILDING SUSTAINABLE COMMUNITIES	<ul style="list-style-type: none"> <li>• Promoting economic vitality and employment</li> <li>• Better Health for all</li> <li>• Travel</li> <li>• Access</li> <li>• Shaping our surroundings</li> <li>• Involvement and stronger institutions</li> </ul>
MANAGING THE ENVIRONMENT AND RESOURCES	<ul style="list-style-type: none"> <li>• A more integrated approach</li> <li>• Climate and energy supply</li> <li>• Air and atmosphere</li> <li>• Freshwater</li> <li>• Seas, oceans and coasts</li> <li>• Landscape and wildlife</li> </ul>
SENDING THE RIGHT SIGNALS	<ul style="list-style-type: none"> <li>• Sending the right signals</li> </ul>
INTERNATIONAL CO-OPERATION AND DEVELOPMENT	<ul style="list-style-type: none"> <li>• International co-operation and development</li> </ul>

**Table B.3: Good Practice Guide on Sustainability Appraisal of Regional Planning Guidance (DTLR, 2000a)**

Sustainability Theme	Sustainability Objective
Maintenance of high and stable levels of economic growth	<ul style="list-style-type: none"> <li>To encourage and accommodate the maintenance of a steady rate of economic growth</li> <li>To provide for good accessibility to and movement of goods by businesses within the region</li> <li>To encourage and accommodate the expansion of selected economic sectors involved with advanced manufacturing and exports</li> <li>To encourage stronger linkages between firms and the development of clusters and specialisms within an area</li> <li>To build economic activity on local strengths</li> </ul>
Social progress which recognises the needs of everyone	<ul style="list-style-type: none"> <li>To find a balance in the distribution of population, employment and housing</li> <li>To reduce disparities in income, and access to jobs, housing, and services between areas within the region and between segments of the population</li> <li>To ensure good accessibility to jobs, facilities and services</li> <li>To provide decent housing for every household requiring a home</li> </ul>
Effective protection of the environment	<ul style="list-style-type: none"> <li>To maintain and enhance the quality and distinctiveness of the landscape</li> <li>To make towns and cities more attractive places to live</li> <li>To maintain and increase biodiversity</li> <li>To maintain and improve the quality of ground, river and sea waters</li> <li>To improve atmospheric integrity and air quality</li> </ul>
Prudent use of natural resources	<ul style="list-style-type: none"> <li>To reduce consumption of undeveloped land</li> <li>To use agricultural land more sustainably</li> <li>To promote a move up through the waste management hierarchy</li> <li>To reduce consumption of minerals from primary sources</li> <li>To ensure that water is efficiently used to meet needs whilst reducing environmental impact and resource depletion</li> <li>To promote the prudent use of energy from finite sources</li> </ul>

**Table B.4: SWRA South West Sustainable Development Framework (see page 8 - Themes)**

<p>Health and Well-being</p> <p>Economic Development</p> <p>Climate Change</p> <p>Development and Planning</p> <p>Regional Inequality/Access</p> <p>Sustainable Communities</p> <p>Biodiversity and Landscapes</p> <p>Learning and Skills</p> <p>Transport</p> <p>Natural Resources and Waste</p> <p>Business and Work</p> <p>Culture and Heritage</p> <p>Food and Farming</p> <p>Tourism</p>
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Coast and the Marine Environment

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## **APPENDIX C**

### **Comments from Practitioners**

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## Practitioner Consultees

Contact	Organisation
Alistair Faulton	ERM
Amanda Sutton	Gloucestershire County Council
Andrew Austen	North Devon County Council
Clare Brewster	East Devon District Council
Dermot Scanlon	EDAW
Dr Alan Bond	University of Aberystwyth
Dr Bill Sheate	Imperial College
Dr Hugh Barton	University of West of England
Gerry Chequer	Wiltshire County Council
Helen Byron	RSPB
Helen Doran	English Nature
Johanna Curran	University of Manchester EIA Centre
Maritta Boden	Land Use Consultants
Mike Garrity	Poole Borough Council
Paul Hamblin	CPRE
Riki Therivel	Levett and Therivel
Rohan Torkildsen & Dick Sage	Bristol City Council

## Questions used in the Structured Interviews

1. **What experience have you had with Strategic Environmental Assessments, Sustainability Appraisals or Environmental Appraisals at the Plan or Programme level?**
2. **How many SEA/SA/EA's have you undertaken?**
3. **Can you give any examples of those you have carried out?**
  - *Have you carried out any SEA/SA/EA's in the South West Region?*
4. **What was the nature of your involvement in the SEA/SA/EA?**
  - *e.g. carried out as part of a team/reviewed etc.*
5. **To what extent did the SEA meet the requirements of the SEA Directive?**
6. **Did the assessment/appraisal framework include environmental, social and/or economic effects?**
  - *Which were the dominant issues in that case?*
7. **Did you use any guidance to assist you?**
  - *What guidance was used? e.g. DETR 1993, DETR 2001*
8. **Was the availability of appropriate data a limitation to the SEA/SA/EA?**
  - *If so, what sort of data gaps were there and why, e.g. was it because of project resource, time availability, were there data sets unavailable?*
  - *How was this addressed e.g. ignored it, expert judgement used instead.*
9. **Under the SEA Directive there is a requirement to monitor 'significant environmental effects of the implementation of plans and programmes'. Do you have any experiences or views as to how this could be addressed in practice?**
  - *Note the difference between 'procedural' monitoring and 'effects' monitoring.*
  - *Would monitoring give rise to additional data demands?*
10. **In your opinion, what are the barriers to implementation of the SEA Directive?**

*The comments from practitioners are in response to the above questions are provided in the tables which follow. Responses are grouped by organisation type.*

EXPERIENCE WITH SEA/SA/EA & USE OF GUIDANCE	
LOCAL AUTHORITIES	1. Commissioned one SA of the Local Development Plan, none undertaken. The SA made recommendations to inform alterations of the Development Plan, generally the Plan was found to be relatively sustainable.
	2. Guided, helped and assisted EA of old Local Plan (matrix checklist approach) and a SA of the local Plan as part of a team. PPG12 Government Guidance was used to assist process.
	3. Undertaken two SAs, SEA (' <i>strategic environmental appraisal</i> ') of minerals plan and SEA of structure plan (primary stages). The SA's and SEAs were carried out internally until it came to integrating the information of the policy into the SEA, subsequently Land Use Consultants were commissioned. The 1993 DoE guidance was used and presently a sustainability checklist is being used as a basis for the next SEA.
	4. Undertaken an Environmental Appraisal of the Local Plan and a Sustainability Appraisal of Structure Plan. Initially they were completed individually, later revisions were completed as part of a team. No outside bodies were involved. Currently the SA is in its primary stages. The Best Practice Guidance 1993 was used to assist the process.
	5. Undertaken an EA of mineral local plan and a SA of waste local plan. Separate teams carried out the appraisals. The DETR Guidance was used to assist the process.
	6. Undertaken Sustainability Appraisal of Local Plan and sustainability appraisals through best value of individual services. Their role was mainly concerned with reviewing the policies. Criteria was created to assess each policy and a summary was written in terms of relevant environmental, social and economic issues. Own experience and the DETR Guidance on Environmental and Sustainability appraisal were used to assist in the process.
CONSULTANTS	1. Undertaken Waste and Mineral Plans for Local Authorities in the South West, written guidance on SA and SEA of Strategic Defence Review for the MOD which was UK based and have reviewed and carried out SEAs accompanied by sub consultants. Over 3 years approximately 3 have been undertaken in total for LA, but with on going appraisals and reviews to come. MOD Guidance has been running for 3 years. Used Government Guidance on Sustainable Development and how to undertake a Sustainability appraisal, also consulted with the Local Authorities to get an up to date version of methods being used.
	2. Undertaken SA framework for Action, SA Regional Gateway strategy in South West, EA of English Partnerships projects, SA objectives to funded projects and EA of Objectives 1 programme. Main role was to direct the SAs. Initially the SAs were based on DETR and RPG guidance, however, the SA's were not all planning based so guidance was tailored.
	3. Advised on many SEAs for Local Authorities in the South West, examining Local Plans (e.g. Bath) and Transport Plans, also at regional level looking at sustainability appraisal guidance and at the National level too. Tend to use the Directive as a basis for assessing plans and also speak to the LA's and to identify the criteria they have incorporated.
	4. Undertaken SA of Quality of Life Capital, SA of Local Plans and policy submission of Structure Plan review. Used 1993/2001 guidance and Quality of Life Capital guidance by EN, EA, EH etc.
ACADEMIC INSTITUTIONS	1. Researched EA of development plans in India, and advised on environmental appraisals in Local Authorities e.g. Rekin District Council, has not undertaken any SEAs, SAs or EAs. The Government Good Practice Guidance was used to assist with the process.
	2. Reviewed and advised on EU commission, SEA and strategic decision making and was part of a steering group for Thames Water – Water Resources strategy. Guidance came from EC Reports – manual of SEA, transport infrastructure, transport corridors; USA EPE; and academic reports in particular the Dutch Guidance.
	3. Reviewed Guidance on EA of Development Plans – DoE 1993, Worked with Baker Associates on Guidance and Conducts Courses in SA for LA's and Consultants. Mainly use academic research as guidance.
	4. Undertaken EA of Unitary Development Plan and a SA of Unitary Development Plan undertook a SA for a funded Project known as 'Pathway'. Used the DOE 1993 guidance and the SA national draft guidance.
STATUTORY BODIES	1. Doesn't undertake SA's or SEA's but has carried out a review of SA's in terms of Biodiversity effects. Have undertaken a review of all Regional Sustainability Appraisals - SW, East Midlands. East Midlands was the best because it examined the issues in terms of an integrated appraisal framework. The DETR Guidance on RPG and the Guidance on SA (by Baker Associates) were used in the reviewing process.
	2. No direct experience relating to the South West. Have lobbied Directive, reviewing at the regional level, as part of a steering group. Have reviewed and advised on DTI Offshore oil and gas and MOD – Strategic Defence Regional SA. Used Baker RPG 12 guidance, Academic research such as Steven Smith Integrated Analysis, East Midlands Sustainability Appraisal Guidance and RSPB – Bedfordshire Step by Step Guidance (not up to date).
NOT-FOR-PROFIT ORGANISATIONS	1. Have had direct discussions/negotiations on SEA Directive, sat on steering group and undertook peer review contracts.

MEETING REQUIREMENTS OF THE SEA DIRECTIVE	
LOCAL AUTHORITIES	1. Unable to answer
	2. Unable to answer
	3. SEA Directive not consulted. 1993 guidance was used for review. First review came out in 1995 and second review came out in 1999.
	4. Aware of the SEA Directive, Using as guidance for SA, looking at implications and issues associated with this.
	5. Taken in advance of SEA Directive, met requirements of DTLR guidance.
	6. Unable to answer
CONSULTANTS	1. Work LUC has carried out has extended beyond the requirements of the SEA Directive, as the Directive does not adequately consider social and economic issues. The Directive is limited in its scope.
	2. None in accordance with Directive in UK
	3. None of the SEAs/Sas met the requirements of Directive in full, used good practice guide of environmental appraisal, many issues were internalised but did not follow Directive rigorously.
	4. Did not use the Directive, thought about the appraisals in terms of PPG12.
ACADEMIC INSTITUTIONS	1. SEA is more stringent than sustainability appraisals examined. Applicable to function.
	2. Met the requirements to a large extent where the SA had a very good consultation phase.
	3. SA (in general) will be easy to fulfil the SEA Directive because SA's encompass sustainability (nb. Is not fully aware of detail of SEA Directive).
	4. Relating to the examples, the Directive was never taken into account. The examples mainly incorporate the 1993 appraisal approach.
STATUTORY BODIES	1. SA carried out too late, hopefully the SEA will be carried out to inform policy making. SEA should take over SA.
	2. In first case the SA used Directive as guidance, the second example was based on Baker Guidance, building on sustainability.
NOT-FOR-PROFIT ORGANISATIONS	1. There are clear deficiencies, EAs are 'post-hoc', internal, consultation with stakeholders is minimal, don't focus on the bigger issues, no post plan monitoring, implementation issues.

ASSESSMENT/APPRaisal FRAMEWORK	
LOCAL AUTHORITIES	1. The appraisal recognised social, economic and environmental issues equally.
	2. Social, environmental and economic issues were all of equal importance – didn't split up into separate issues (founded from overarching objectives).
	3. Economic issues and environmental issues were prominent. Social issues were difficult because they were beyond the scope. Dominant economic issue - the plan would have economic implications in the Forest of Dean – it would increase employment in the area.
	4. The Guidance highlighted the environmental issues more than social and economic issues, however, the Local Plan used a matrix to highlight the welfare issues such as housing, it had a sustainability development context ended up being called a sustainability appraisal.
	5. Environmental and amenity issues (such as noise, dust, smells) were the most prominent, there were no real social issues. All sorts of issues were addressed based on indicators.
	6. Mainly dealt with environmental issues as it is hard to assess economic impacts on planning issues. Quite a lot of policies were positive, however there was skew in information where a new community was being built which had a negative environmental impact through building. The social side of things were quite positive in terms of quality of life. Hard to judge social issues.
CONSULTANTS	1. In terms of SEA for LA's the social and economic issues were not as detailed as the environmental issues.
	2. Included economic, social and environmental issues. Main issues were that the national sustainability objectives had to be considered as there were no regional SD objectives at the time. The report was largely prepared without any clear guidance as to how to incorporate the issues of SD. Regional SD objectives were available.
	3. Environmental issues have always been the dominant issues, but social issues are becoming more important now. Recently just finished carrying out a sustainability appraisal of policies for food and agriculture. The key issue was robustness e.g. taking into consideration farming policies resilience to change.
	4. Social, environmental and economic issues were included. SA of Local Plan - dominant issues included social inclusion and economic development. Dominant issues tend to be bound by wether politics or area.
ACADEMIC INSTITUTIONS	1. Environmental appraisals mainly covered environmental issues and generally they followed the good practice guide so sustainability issues were built in. Herefordshire and Kent were able to demonstrate their sustainability objectives and developed social and economic criteria.
	2. Focused on environmental integration rather than social and environmental issues. However, often encourage through sustainable development. Looked at costs implications, but basically and environmental assessment.
	3. (In general) criteria should be set at the outset within the objectives.
	4. The research incorporated environmental, social and economic issues. Because of the nature of what they were, the research was biased toward the environment.
STATUTORY BODIES	1. Included all social, environmental and economic issues. Something which is missing is the distributional effects. Social and health issues are currently at the forefront of discussion and need to be addressed properly.
	2. Unable to answer.
NOT-FOR-PROFIT ORGANISATIONS	1. Economic issues do not get properly raised at regional level. Limited range of factors considered and this makes the review superficial – e.g. jobs, and transport. SA does not lead to balancing effects. Currently SA is not being carried out in the interests of Sustainable Development, but is being carried out because it is a requirement.

AVAILABILITY OF APPROPRIATE DATA	
LOCAL AUTHORITIES	1. The Local Authority has its own indicators, they produce annually updated data sets which also inform Local Agenda 21.
	2. To some extent, some background research for a Local Plan. For example, some surveys of wildlife were carried out on wildlife in the area. Air quality data was patchy. There were difficulties with finding information on safety and security issues. Landscape data was available. Issues relating to health – e.g. contaminated land data was hard to get hold of. There was little information on retail mix.
	3. Available data was a limitation, in particular, collecting baseline data, for state of the environment issues in the minerals SEA. Air quality information relevant to region was patchy and base data on county audit was not up to date. Generally, the LA did not have the resources to cope with the situation.
	4. Data was used more as a tool to examine conflicts and was based on objectives. The state of the environment report and key designated sites were available data sources. The SA had a clearly defined environmental position.
	5. Unable to answer.
	6. There were data limitations due to the inability to carry out an extensive baseline scoping exercise due to inadequate resources. Unable to say where the data gaps were.
CONSULTANTS	1. The availability of data was an issue. For example the SEA of the Defence Review involved detailed consultations with the MOD and there were often knowledge gaps. Cannot recall limitations with data with Local Authorities.
	2. Reliance on national Sustainable Development objectives was a limitation.
	3. Baseline data given by LA was a limitation. Some LAs have monitoring, but most have none or data which is out of date. Sorts of data which is generally unavailable is 'access data', and services available. These are mainly associated with the social component. However these issues are not easily measured. In terms of basic data, there is a need for transport movements, and greenfield/brownfield data.
	4. Appropriate data is not really a limitation as such, but had to search for data, e.g. environmental quality of area – there were no data and had to carry out own research, there were problems with social and demographic data being too out of date. Data research was done by pulling information from Wildlife Trust, EN and EH together,.
ACADEMIC INSTITUTIONS	1. Unable to answer
	2. SEA of North Corridor – data inconsistencies with GIS information. In most of the case studies examined, data was a limitation. With Thames Project - Not as many data problems because project was long term. If necessary the project had resources to carry out additional surveys.
	3. Major data issues are as follows: <ul style="list-style-type: none"> <li>▪ Global Issues such as transport (length of trips, modal choice), buildings (site location), biodiversity;</li> <li>▪ Local Issues such as air, water, land (local environmental quality, townscape, heritage);</li> <li>▪ Social issues such as provision of space (relates to housing, open space);</li> <li>▪ Health and equity issues (accessibility)</li> <li>▪ Economic issues</li> </ul> This information is essential when looking at plans and programmes. There is a real problem getting data on accessibility and open space.
	4. Information was required from several organisations which caused problems. Problems with public consultations. The main problems were with spatial impacts, the GIS system used was inadequate for the purpose. Didn't take these matters any further because it was part of a bigger appraisal phase. Now the appraisal has responses from a large proportion of the public and there is info on CD rom etc.
STATUTORY BODIES	1. Can't really tell with SA because it is down to objectives. Data is not regularly available at a regional level. With SEA, the data will be needed up front.
	2. Lots of resources to find information, also has SEA experts and technical experts on panel. Looked at topic areas within guidance and based SEA on the relevant areas rather than objectives. Biodiversity data, regional audits, EN natural areas – generally comprehensive data sources. Need data on spatial areas and data on regional sustainable development.
NOT-FOR-PROFIT ORGANISATIONS	1. Need a systematic approach, the real issue is the understanding of data.

MONITORING	
LOCAL AUTHORITIES	1. Use of broader indicators of Environmental Quality? Unable to answer.
	2. Criteria for monitoring was drawn up and indicators were identified to measure them by, however, not implemented.
	3. Currently developing an annual monitoring report for the structure plan SA, use indicator monitoring e.g. percentage of brownfield sites compared with Greenfield sites.
	4. Need to consider that impacts stretch beyond boundaries Didn't include monitoring or baseline data. Use appraisal monitoring based on information we now we can get our hands on. Need to consider future.
	5. Procedural monitoring takes place, such as monitoring for noise, air. Difficult to set monitoring targets so no targets were set within the SA's or EA's. No resources or time to do it
	6. Do have monitoring in terms of the planning process, e.g. with housing applications there are monitoring of things like energy efficiency.
CONSULTANTS	1. Local Authorities have developed Environmental Forums where council officers, key organisations and public can attend. The LA undertake monitoring in various groups, they have set targets. PPG12 actually requires the LA to undertake monitoring reports. Problems with adequate funding and implementing and recording data for all indicators. For example, the LA may have 52 indicators but only focus on say, 12.
	2. Relies on issues built in to the plan and programme and responsibility. Signals from Government are weak and no monitoring is really carried out.
	3. The difficulty with monitoring is that it costs in terms of resources. LAs are supposed to monitor. The Directive requires topics which are generally already being monitored e.g. air etc. Social Issues are not dealt with properly human health and population need re-interpretation. Also need to bring these topics together in terms of data sets. Monitoring at one scale, lots of local scale data but what about regional?
	4. Incorporates an environmental action plan, then recommendation and requirements are made upon this. Use of a management system – there are different ways of doing this dependant on the client. Additional data demands will be created. The real issue is the quality and interpretation of the data – everyone collects it but need integration between organisations e.g. urban air quality network' now include management areas.
ACADEMIC INSTITUTIONS	1. Concerned with monitoring for uncertainties rather than monitoring for changes (nb. Consultant has not carried out an SEA/SA etc)
	2. LA21 grants in Australia created a Public NGO forum for monitoring indicators. Involvement in this was at the preliminary phase and monitoring was not really relevant as no decisions were made. This was basically a feasibility study. Monitoring considerations will probably be important later on.
	3. Monitoring issues are often dealt with through the application of indicators, however indicators only deal with the primary issues (e.g. quality of life indicators). These don't reveal what the impacts are on policies and plans. It is difficult to monitor energy impacts because the energy companies do not share the data. There is a need for stakeholders to share information.
	4. Unable to answer.
STATUTORY BODIES	1. Feels that this is going to be tricky, as EN will be part of the monitoring framework. Currently setting up a National Biodiversity Network. Easier to collect data on designated sites, but the difficulty come from monitoring habitats. These issues have not been addressed.
	2. Ways to monitor include: <ul style="list-style-type: none"> <li>▪ Web based data base on best practice examples forming a catalogue.</li> <li>▪ National Biodiversity Network'</li> <li>▪ Use of indicators only relating to the objectives and only half the problem of examining baseline data.</li> <li>▪ Independent monitoring groups</li> </ul> LA base studies on datasets already available, fear that new datasets will not emerge. Need to consider the co-ordination of information.
NOT-FOR-PROFIT ORGANISATIONS	1. Monitoring needs to be planned in advance, but there are often too few resources, Some topics are more closely examined such as water quality, other topics have less focus such as noise. Landscape has always been difficult to measure.

BARRIERS TO THE IMPLEMENTATION OF THE SEA DIRECTIVE	
LOCAL AUTHORITIES	1. The broad range of strategies covered by the Directive needs to be defined, for example, community strategies are covered, but what about smaller strategies such as swimming pool strategies?; Time implications and costs incurred through training staff; Data gaps - currently indicators are poorly monitored and often not monitored at all – there would have to be a process for accurate sets of data.
	2. Resources – time, staff, money; robust manageable targets, no net loss and damage to sites is difficult to monitor because there is a difficulty in identifying specific targets; Educational training.
	3. Difficult when the issues are politically sensitive, (for example, the SEA of minerals plan – the site for a new settlement was on a Greenfield site so it was 'unsustainable', but this was politically sensitive information and the outcomes were 'covered up'); Need to consider the life span of a policy, plans and programmes – can outcome be sustainable?; Government commitment and context; Resource implications.
	4. Important to tie up plans and strategies and be consistent – need to account for the cumulative effects of other plans and programmes; Resources; Need to recognise compatibility issues between SEA and SA.
	5. Resources; Complexity ; Need for measurers and monitoring staff.
	6. Comprehensive process; financial resources and time.
CONSULTANTS	1. Scope of the SEA Directive is limited; Lack of guidance. Many LA are basing SEA's on old guidance; Educational training; Resource issues.
	2. Agencies will find the Directive more useful than the Local Authorities; There is a lack of Government will to provide information and guidance on the SEA Directive; Need for training; Absolute clarity; Monitoring
	3. Cost; Guidance – need to bring something out relatively quickly if we are aiming for the implementation target; Need to distinguish between SEA and Sustainability Appraisal – Guidance is needed on the integration of these.
	4. No barriers as such, more problems – how to interpret it, what do we do with it? Will probably start like the progression of EIA. Appraisals and SEA or on a learning curve – need to learn from best practice examples.
ACADEMIC INSTITUTIONS	1. Barriers due to the prescriptive nature of the Directive. Currently there is a well defined system for carrying sustainability appraisal and incorporating the new ideas is difficult; The Directive is cross sectoral e.g. transport, land use etc., and there needs to be some sort of interpretation for these variations.
	2. Integration of SA with SEA; Resource issue, particularly for the LA's and RG; Availability of data; Political will.
	3. The will of the Local Authorities and other Authorities to introduce SEA as part of the process. Resources are secondary to this; Education and Training.
	4. Integration between SA and SEA; Resources, in particular the reallocation within LA.
STATUTORY BODIES	1. Data and information; If a good SEA is done then hopefully EIA's will not be as onerous.
	2. Clarity on the relationship between SA and SEA; Need for qualified professionals; Resources; Government implementation of the Directive
NOT-FOR-PROFIT ORGANISATIONS	1. Political will – buying what SEA can deliver; Data requirements; Training; Financial resources; Establishing communication networks in other regions.