



## The First 10 years of the UK EIA System: Strengths, Weaknesses, Opportunities and Threats

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## PRACTICE FORUM

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# The First 10 Years of the UK EIA System: Strengths, Weaknesses, Opportunities and Threats

JOHN GLASSON

### Introduction

Good intentions do not always become good practice. In the field of public policy, there is often a policy formulation–implementation gap; this has been a particular concern in relation to European Union (EU) environmental policy. There are now over 200 Directives in this policy area, and many people have raised concerns about what they see as an ‘implementation deficit’—with more policy than action (Lieverink *et al.*, 1993; Lowe & Ward, 1998). However, the contention here is that this has proved to be less of an issue with regard to Environmental Impact Assessment (EIA) policy, and particularly in the case of its application in the UK.

It is now over 10 years since the UK government, somewhat reluctantly, implemented European Commission Directive 85/337 (Commission of the European Communities (CEC), 1985) through the initial Town and Country Planning (Assessment of Environmental Effects) Regulations (1988) plus a host of other associated regulations and guidance. From March 1999 we entered a new phase in EIA, with revised regulations to implement the amended Directive 93/11/EC (CEC, 1997). It is timely to review progress and prospects, and to briefly assess associated issues. This article adopts the business model of a SWOT analysis (systematic assessment of strengths, weaknesses, opportunities and threats) for the core of the review (Andrews, 1980; Bryson, 1995). It is prefaced by an overview of approaches to the

assessment of EIA quality, and followed by discussion on likely practice under the amended regulations, and proposals on the longer-term EIA agenda.

### EIA—Quantity and Quality in Context

Since the implementation of the European Commission (EC) Directive in the UK in 1988, over 3000 Environmental Impact Statements (EISs) have been produced (Wood & Belanger, 1999). Approximately 70% of these EISs have been produced under the Town and Country Planning (Assessment of Environment Effects) Regulations, for England and Wales, and for Scotland.<sup>1</sup> The annual output has fluctuated with the economic cycle, peaking at over 350 per annum. It might reasonably be expected that this level of activity would lead to improvements in the quality of EISs also, as the various parties involved—developers, consultants, local planning authorities, statutory and non-statutory consultees, other interest groups and central government—improve their EIA knowledge, understanding and skills. However, quality is not always associated with quantity. Some commentators (e.g. Council for the Protection of Rural England (CPRE), 1991) have argued that over-emphasis on the EIS, and in particular on EIS quality, has diverted attention away from the effectiveness of the overall EIA process.

TABLE 1. Changes in EIS quality in the UK

| Criterion category                                 | Qualitative assessment (A (high) to F (low)) |               |
|----------------------------------------------------|----------------------------------------------|---------------|
|                                                    | Pre-1991 ESs                                 | Post-1991 ESs |
| 1. Description of the development                  | C/D                                          | C             |
| 2. Description of the environment                  | C/D                                          | C             |
| 3. Scoping, consultation and impact identification | D                                            | C/D           |
| 4. Predictions and evaluation of impacts           | D                                            | C             |
| 5. Alternatives                                    | E                                            | D             |
| 6. Mitigation and monitoring                       | C/D                                          | C/D           |
| 7. Non-technical summary                           | D                                            | C/D           |
| 8. Organisation and presentation of information    | C/D                                          | C             |
| Overall quality of EIS                             | D                                            | C             |
| Overall numbers of EISs                            |                                              |               |
| • satisfactory (A–C)                               | 9 (36%)                                      | 15 (60%)      |
| • marginal (C/D)                                   | 3 (12%)                                      | 1 (4%)        |
| • unsatisfactory (D–F)                             | 13 (52%)                                     | 9 (36%)       |
| Total                                              | 25 (100%)                                    | 25 (100%)     |

*Source:* DoE (1996).

Various authors have identified quality criteria for the EIA process and for EISs (Ortolano, 1993; Petts & Eduljee, 1994; Department of the Environment (DoE), 1996). Key criteria include the following:

- (i) compliance with applicable regulations;
- (ii) completeness with respect to the agreed scope of the EIA work to be undertaken;
- (iii) adequacy of the methods to be used with regard to the guidelines, peer review, judicial review, etc.;
- (iv) influence on the weight given to environmental factors in decision making;
- (v) influence on the decision of whether to approve, reject or modify the project;
- (vi) cost effectiveness;
- (vii) contributions to sustainable development;
- (viii) transparency, objectivity and impartiality;

- (ix) effective communication and accessibility to relevant audiences.

Of these criteria, (i)–(iii) apply more to the EIS rather than to the entire EIA process. Criteria (viii) and (ix) highlight the need to define clearly for whom the EIA is provided. Perspectives on quality may vary between groups involved (e.g. between developers and various interest groups) and within groups (e.g. some developers may welcome the potential design and decision-making benefits of a good EIS; others may see it as yet another cost hurdle and time delay). All participants require an objective, clear and structured explanation of the proposal and assessment of impacts (Petts & Eduljee, 1994).

There have been several studies of EIA quality, including the review of the implementation of the EC Directive (CEC, 1993), the comparative study by Wood (1995) and the major International Association for Impact Assessment (IAIA) study, coordinated by Sadler

TABLE 2. Changes in EIS quality in the UK—some further findings

| Criteria               | Grade |          |      |
|------------------------|-------|----------|------|
|                        | Good  | Marginal | Poor |
| Pre-1991               |       |          |      |
| Comprehensiveness      | 31%   | 31%      | 38%  |
| Objectivity            | 18%   | 37%      | 45%  |
| Clarity of information | 25%   | 56%      | 19%  |
| Post-1991              |       |          |      |
| Comprehensiveness      | 55%   | 27%      | 18%  |
| Objectivity            | 41%   | 35%      | 24%  |
| Clarity of information | 55%   | 38%      | 7%   |

*Source:* DoE (1996).

TABLE 3. Perspectives on extent to which EIS influenced planning decision

| Group                     | Extent (%) |      |             |
|---------------------------|------------|------|-------------|
|                           | Much       | Some | Little/none |
| Planners                  | 20         | 60   | 20          |
| Consultees                | 10         | 50   | 40          |
| Developers (small sample) | 25         | 50   | 25          |

(1996), plus specific national-based review studies, including the Commonwealth Environmental Protection Agency (CEPA) (1994) study in Australia. The findings of a recent study by Oxford Brookes University for the UK DoE, on compliance with procedures and impact on decisions, are summarised in Tables 1, 2 and 3. Table 1 is based on a detailed comparison of EISs for 25 matched pairs of projects, produced pre- and post-1991. They were reviewed against a very comprehensive framework developed by the Impact Assessment Unit (IAU) at Oxford Brookes University, building on an earlier work by Lee & Colley (1991). The projects were assessed on a scale of A (high quality) to F (low quality), with C being just satisfactory. The comparison of EISs over the two time periods does show some improvement in quality, although almost 40% of post-1991 EISs were still unsatisfactory (DoE, 1996).

Table 2 shows concern over issues such as objectivity; Table 3 shows variations in perceptions of the influence of EIA between the participants in the process. There are again signs of improvement, but important concerns remain when only 41% of survey respondents reported EIS objectivity as good. Consultees in the EIA process (such as English Nature) are less positive than planners and developers about the influence of EISs.

The improvement in quality can be explained by several factors, including learning through experience, with better-quality EISs associated with those consultants and local authorities handling larger numbers of EIA studies, and better guidance and good practice associated with certain project types. A correlation between EIS quality and EIS length was also reported, up to about 150 pages, after which diminishing returns set in. Similar recent stud-

TABLE 4. UK EIA performance: SWOT analysis

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Strengths     | <ul style="list-style-type: none"> <li>• underpinned by EU legislation</li> <li>• has not become over-technical</li> <li>• capacity building: guidance documents; training programmes</li> <li>• general acceptance of utility of EIA from all 'actors' in the process</li> <li>• some widening (e.g. environmental appraisal of development plans)</li> <li>• i.e. a fast 'learning curve'</li> </ul>                                                                                                                                        |
| Weaknesses    | <ul style="list-style-type: none"> <li>• multiple and fragmented legislation and links (e.g. to IPC)</li> <li>• little consideration of alternatives</li> <li>• little monitoring and auditing</li> <li>• bio-physical perspective on environment</li> <li>• little consideration of cumulative impacts</li> <li>• 100s of 'competent' authorities; weak quality control</li> <li>• perceived problem of developer/consultant management of the EIA process</li> <li>• lack of effective public participation; too little too late</li> </ul> |
| Opportunities | <ul style="list-style-type: none"> <li>• environmental politics/pressures (e.g. Local Agenda 21)</li> <li>• pressures from environmental liability/insurers</li> <li>• amended EU Directive; new Directives</li> <li>• more projects subject to EIA; more stages of project life cycle (e.g. planning, decommissioning)</li> <li>• widening scope—SIA, etc.</li> <li>• tiered assessment—SEA, etc.</li> <li>• use of IT (GIS, Expert Systems, etc.)</li> </ul>                                                                                |
| Threats       | <ul style="list-style-type: none"> <li>• deregulation/privatisation (more one-offs; less continuity)</li> <li>• fast-tracking/routinisation/cost reduction (more with less)</li> <li>• continuing perceived bias; inequity of process</li> <li>• perceived threats to/from competitive procedures (e.g. IPPC)</li> </ul>                                                                                                                                                                                                                      |

ies on changes in EIS quality for other EU Member States reveal the same general trends (see, for example, CEC, 1996a).

#### UK EIA System—A 'SWOT' Analysis

Table 4 provides a summary SWOT analysis for EIA in the UK up to 1999. The SWOT analysis of the Harvard policy model (Andrews, 1980; Bryson, 1995) provides a useful tool for a review of the UK EIA system. Whilst the approach has evolved from business, the focus on progress and prospects and on varying stakeholder perspectives in the subject area under review offers a useful framework for this analysis. The following sections describe some of the main points.

#### Strengths

Without the EC Directive it is unlikely that the UK would have made the advances in EIA witnessed over the last decade, notwithstanding the pioneering work by Clark *et al.* (1976), Lee & Wood (1984) and Wathern (1988) during the 1970s and 1980s. From a position of hostility and reluctance the UK government has shifted somewhat, with support for research and best-practice guidance which is in advance of much of EIA activity in several founder Member States. So far the UK approach has not been over-technical. Voluminous documentation, typical of the National Environmental Policy Act (NEPA) in the US, has been avoided in most cases, with marked, and perhaps justified,

exceptions for certain mega projects, for example Heathrow Terminal Five.

A particular strength of the relatively new UK EIA system, in comparison, for example, with the long-established French system, has been the capacity building of documentation, training and institutions associated with EIA. The UK DoE, now the Department of the Environment, Transport and the Regions (DETR), has produced and commissioned a wide array of guidance on procedures and practice (see, for example, DoE 1994a, 1995). This has been complemented by guidance from other agencies, such as the Environment Agency (1996), and the Institute of Environmental Assessment (IEA) (1995). The latter is also an example of an independent body which undertakes much work in promoting best-practice standards in environmental assessment and auditing in the UK. It is a non-profit-making organisation maintained by membership drawn from a wide base of environmental consultancies, industry, local authorities and educational establishments.

The strong role of educational establishments in supporting EIA is another important feature of the UK system. There are major centres of EIA training (with Master's programmes and Ph.D. training), and research and consultancy activity, at Aberdeen, Aberystwyth, Manchester and Oxford Brookes universities, plus an array of courses in other institutions. This leads to an annual output of 100–200 graduates who provide a valuable resource to the growing numbers of consultancies (see Environmental Data Services Ltd (ENDS), 1997), local planning authorities (LPAs), developers, and other bodies such as the Environment Agency.

Overall, there has been a growing and widening acceptance of the utility of EIA from participants involved in the process. Consultees broadly agree that EIA creates a more structured approach to handling planning applications, and that an EIS "gives them something to work from rather than having to dig around for information themselves" (DoE, 1996, p. 39). Local planning authorities generally feel that projects and the environment benefit greatly from EIA (Jones, 1995; Lee *et al.*, 1994), and environmental consultants feel that EIA has brought about at least some improvements in

environmental protection, in project design and the higher regard given to environmental issues (Weston, 1995).

In addition, there is increasing interest in some extension of the scope of EIA to take on the higher-level tiers of policies, programmes and plans (PPPs). Whilst the Draft EC Directive on Strategic Environmental Assessment (SEA) is still being debated, there has been some progress on the SEA of central government PPPs (DoE, 1991, 1994b; CPRE, 1996), and much more substantial progress on the environmental appraisal of local authority development plans. By early 1997, most local authorities in England and Wales, and a few Scottish authorities, had begun to carry out environmental appraisals, and more than 180 had completed at least one round of appraisal (Therivel, 1997). The DoE's good-practice guide (1993) on environmental appraisal of development plans has been well accepted, and the progress noted represents a major 'SEA-change' in strategic assessment (Glasson, 1995). Further DETR-sponsored research is being undertaken on environmental appraisal for the reborn regional level of planning in the UK. Of growing significance also is the requirement by the EC Directorate General XVI (Regional Policy) for environmental appraisals of Member States' regional development plans, needed to access the 40% or so of the EU annual budget now earmarked for Structural Fund expenditure on infrastructure and training provision for the less favoured regions of the EU.

### Weaknesses

EC Directive 85/337 has been implemented in the UK through over 40 regulations (see Glasson *et al.*, 1999, Chap. 3). Different regulations apply to projects covered by the planning system, projects covered by other authorisation systems and projects not covered by any authorisation system but still requiring EIA. Different regulations also apply to England and Wales, to Scotland and to Northern Ireland. This can cause confusion; several regulations may also apply to the different components of a particular project.

Another area for overlap and conflict in

legislation is in relation to integrated pollution control (IPC) authorisations. There is, in effect, a dual consent procedure—involving both planning and pollution control—for many major project categories, including for example the important category of waste-disposal and treatment projects. This can lead to the duplication of information requirements, and to modification of project design and layout during the pollution control authorisation process, from that earlier agreed or considered at the planning stage (Brock, 1993; UK Environmental Law Association/Institute of Environmental Assessment (UKELA/IEA), 1993).

A number of other weaknesses relate to aspects of the EIA process. For example, according to Eastman (1997) only about 50% of EISs submitted since 1991 discussed alternatives. Yet, as noted 20 years ago by the US Council on Environmental Quality (CEQ) (1978), the discussion of alternatives is 'the heart of the environmental impact statement'. A discussion of alternatives ensures that the developer has considered other approaches to the project and the means of preventing environmental damage. A consideration of alternatives also encourages analysts to focus on the differences between real choices. The lack of systematic monitoring and auditing of project impacts during implementation is a further significant weakness in current UK practice to date. There is a danger of a short-sighted 'build it and forget it' approach (Culhane, 1993; Frost, 1997). EIA should be more than an auxiliary to the procedure of obtaining planning permission; it should be a means to obtain good environmental management over the life of a project. This requires the better integration of monitoring and auditing into the EIA process, resources to undertake the work and some recognised mechanism for dissemination of results to ensure that they are built into future project EIA.

A number of recent reports have highlighted the importance of considering socioeconomic and social impacts (see, for example, IAIA, 1994). While there are differing interpretations of the scope of this work, UK EIA practice can be seen as primarily bio-physical in focus, with only limited consideration of socioeconomic impacts (Glasson & Heaney, 1993). Yet most

development decisions involve tradeoffs between bio-physical and socioeconomic impacts; there are also invariably winners and losers. There is useful social impact assessment (SIA) practice and associated legislative impetus in several countries, including for example Canada and Australia (CEPA, 1994); however, in Europe the profile is lower, and such impacts tend to be less well considered in UK EIA (Glasson & Heaney, 1993). The consideration of cumulative impacts is even more limited. Impacts associated with individual projects can be minor, but collectively the impacts of multiple projects can impose a significant impact on the environment in what Odum (1982) refers to as the "tyranny of small decisions".

Another area of weakness relates to the unequal access of various 'participants' in the EIA process. It is hard to dispel the view that the UK process is too developer/environmental-consultant driven, and that this may influence perceived objectivity (as noted in Table 2). This view is reinforced by concerns that some local planning authorities may not be as competent as required to assess the quality of EISs, by virtue of their limited resources, lack of expertise and very intermittent consideration of EIA activity. Of the more than 500 UK local planning authorities, many (approximately 250) have received no more than one or two EISs since 1988 (Wood & Bellanger, 1999). In addition, there is a serious concern about the lack of effective public participation in EIA in the UK. It tends to occur late, if at all, and is often tokenistic and limited to minimum requirements (McNab, 1997). We hear much of 'expert speak' but often very little of 'people speak'. Yet the public have much to contribute to the process, including superior local knowledge, their own values as stakeholders, and a non-scientific discourse. Lack of effective public participation is inequitable, inefficient and may also be very counterproductive if frustrated parties resort to other means, including direct action.

### **Opportunities**

O'Riordan (1990, p. 13) provides an interesting perspective on the changing nature and context of EIA:

If one sees EIA not so much as a technique, rather as a process that is constantly changing in the face of shifting environmental politics and managerial capabilities, one can visualise it as a sensitive barometer of environmental values in a complex environmental society. Long may EIA thrive.

Environmental politics and values are changing. Concern for global environmental issues is providing a climate of support for 'precautionary' procedures such as EIA and SEA. In addition, the business sector, and their insurers, are becoming increasingly sensitive to the costs of environmental mismanagement. A high-profile pollution incident can severely damage the reputation of a company and sometimes an industry; a contaminated site can be a major liability. Processes which assess impacts and propose relevant mitigation in advance can be seen as increasingly valuable.

There have been legislative responses, including an amended EC EIA Directive, and further drafts of an SEA Directive (see later). The Fifth Environmental Action Programme (CEC, 1992) clearly states that:

given the goal of achieving sustainable development, it seems only logical, if not essential, to apply an assessment of the environmental implications of all relevant policies, plans and programmes.

The amended EIA Directive, to be implemented in Member States from March 1999, will lead to more projects becoming subject to EIA procedures. The SEA Directive may not be adopted for some time, but the principles are being adopted in an increasing number of countries, including the UK. SEA of plans is developing quickly; programmes and policies are likely to follow and tiered assessment is likely to become a significant area of practice over the next decade.

Other areas of opportunity include the widening scope of EIA to include fuller consideration of socioeconomic and cumulative impacts. Hopefully there will also be a consideration of the longer project life cycle. More

consideration of alternatives at the planning stage of the cycle will bring challenges for all the parties involved; one detrimental impact may be the spread of more 'planning blight', if only for short periods. There may also be more consideration of the closure/decommissioning of projects. In August 1998, the UK Health and Safety Executive published a consultation document on EIA for the dismantling and decommissioning of nuclear reactors and power stations (Health and Safety Executive (HSE), 1998). Such decommissioning became subject to mandatory EIA under the amended EIA Directive (97/11/EC). In the UK, the HSE is the relevant competent authority for receipt of the assessments. It is possible that the environmental impacts of the closure of other types of projects may also become suitable cases for EIA treatment.

EIA, and SEA, also have the opportunity to build on complementary developments in environmental knowledge and skills. State-of-the-Environment reports, carrying capacity studies, and sustainability indicators can provide improved knowledge of the changing baseline environment. Technical developments, including the application of information technology in the form of geographical information systems (GIS), expert systems (ES) and the increasingly ubiquitous Internet sources, can all contribute to the enhancement of EIA activity. In order to maximise the opportunities offered by technical development, a higher profile for public participation and socioeconomic impacts is required. There is also a role for more 'participatory' approaches such as focus-group, Delphi and mediation approaches, and associated techniques, to encourage real public involvement.

### **Threats**

The EC EIA Directive differs from the US NEPA legislation in several important ways. In particular it requires EIAs to be prepared by both public agencies and private developers, whereas NEPA applies only to federal agencies. Over the past 10 years there has been a marked shift towards privatisation and deregulation of many formerly state-managed activities, particularly in the UK. The implications

for EIA of such a shift can only be surmised. However, one implication is a shift away from state developers with ongoing development programmes towards a market of competitive and often smaller developers, with occasional development projects. The UK electricity supply industry provides an interesting example. A considerable body of expertise was built up within the former Central Electricity Generating Board (CEGB) on the environmental impacts, both bio-physical and socioeconomic, of its projects. This was gained from work on a long-running programme of fossil-fuelled and nuclear power station projects (Glasson, 1984; Manning, 1991; Sheail, 1991). Undoubtedly much of this experience has been inherited by the larger of the privatised generating companies such as National Power, Powergen and British Energy. There are also many smaller generators in the market and for them projects requiring EIAs are rare. Consequently, there is less opportunity to learn from their own experience. Increasing commercial rivalry may also make companies more reluctant to engage the public and to be open about their development plans.

In the wider context of developing countries, the World Bank (1995, p. 24) has also drawn attention to the need to 'engage the private sector' as one of the key challenges ahead for EIA:

The private sector has become a major force in financing, designing or implementing development projects. A major, immediate challenge is to work with financiers and project sponsors in the private sector to ensure that projects are subject to EIA of acceptable quality and the projects are compatible with country environmental strategies and plans. Significant progress has been made, but much more work needs to be done, especially in relation to the banking sector and the capital markets, which are the main sources of investment finance in the development world, and in relating environmental planning at the macro level with private sector development.

Another concern is the impact of the growing competition in the environmental consultancy market. In the UK the number of environmental consultancies has almost doubled (to well over 400) since the introduction of the EC EIA Directive (ENDS, 1993, 1997). Whilst EIA work is only one element of the growing environmental consultancy field, it is becoming increasingly competitive. Some consultancies have very limited EIA experience. The Oxford Brookes study for the DoE (1996) showed that of the EISs prepared by consultants with experience of five or fewer about 50% were satisfactory, compared with about 85% of those prepared by consultants with experience of eight or more. Cost cutting by consultancies, including the routinisation and standardisation of some EIS elements (courtesy of the word processor), and the presence of some less reputable firms in the consultancy market, represent a potential threat to EIA quality.

These potential threats from privatisation and competition further exacerbate the continuing perceived bias towards the project proponent in the UK EIA process. As noted earlier, the public in general, and various pressure groups in particular, can feel marginalised in the process. Trends in legislation may also be seen as a threat when there appears to be further scope for complexity and confusion. For example, the EU Council Directive 96/61/EC on integrated pollution prevention and control (IPPC) is a potential further complication for assessment procedures and participation (CEC, 1996b). Although the amended EIA Directive 97/11/EC does allow for the provision of a single procedure to fulfil the requirements of both Directives, this approach seems unlikely to be adopted in the UK.

### **Prospects under the Amended Directive (97/11/EC)**

The amended EIA Directive, to be implemented from March 1999, will address a number of the identified weaknesses and threats. A summary of the main amendments is included in Table 5.

The DETR produced two consultation papers on the implementation of the amended Directive (DETR, 1997a, 1997b), leading to the

TABLE 5. Amendments by Directive 97/11/EC—summary of main elements

- Annex I (mandatory)—the addition of 12 new classes of project (e.g. dams and reservoirs, pipelines, quarries and open-cast mining)
- Annex II (discretionary)—the addition of eight new sub-classes of project (plus extension to 10 others), including shopping and car parks, and particularly tourism and leisure (e.g. caravan sites and theme parks)
- New Annex III lists selection criteria to be considered in determining need for EIA, including:
  - Characteristics of projects: size, cumulative impacts, the use of natural resources, the production of waste, pollution and nuisance, the risk of accidents.
  - Location of projects: designated areas and their characteristics, existing and previous land uses.
  - Characteristics of the potential impacts: geographical extent, trans-frontier effects, the magnitude and complexity of impacts, the probability of impact, the duration, frequency and reversibility of impacts.
- Change of previous Annex III to Annex IV: small changes in content on information required in an EIA.
- Other changes:
  - Article 2(3): there is no exemption from consultation with other Member States on trans-boundary effects.
  - Article 4: when deciding which Annex II projects will require EIA, Member States can use thresholds, case by case or a combination of the two.
  - Article 5.2: a developer may request an opinion about the information to be supplied in an ES, and a competent authority must provide that information. Member States may require authorities to give an opinion irrespective of the request from the developer.
  - Article 5.3: the minimum information provided by the developer must include an outline of the main alternatives studied and an indication of the main reasons for the final choice between alternatives.
  - Article 7: this requires consultation with affected Member States, and other countries, about trans-boundary effects.
  - Article 9: a competent authority must make public the main reasons and considerations on which decisions are based, together with a description of the main mitigation measures.

*Source:* adapted from CEC (1997).

revised Town and Country Planning Regulations (Environmental Impact Assessment) (England and Wales) (DETR, 1999a) and the guidance Circular on EIA (DETR, 1999b). All indicate a positive response to the implementation of the amendments:

The government believes that the Directive represents a significant improvement on the original, particularly in clarifying a number of

ambiguities. The new measures should improve the consistency with which the environment is taken into account in major development decisions throughout the Community. At the same time the Directive offers Member States sufficient flexibility to achieve this without adding unnecessarily to bureaucracy or burdens on devel-

opers ... . Wherever possible, new measures will be incorporated into existing procedures. (DETR, 1997a)

The implementation of new and amended project classes, such as tourism and leisure, can in most cases be incorporated easily within existing current systems. Revised screening procedures are to include both new 'exclusive' thresholds and enhanced indicative thresholds; both will take account of the new criteria, including cumulative impacts, in Annex III of the Directive. Local planning authorities will also be required to place a record of decisions on the need for EIA on the planning register. On scoping, while the government will continue to encourage (rather than require) developers to consult informally with the relevant competent authorities, legislation will also allow a developer to ask the competent authority for a formal opinion, within a specified time frame, on the information that should be included in a particular EIS. The applicant will also be required to provide an outline of the main alternatives studied, and LPAs will be required to publicise reasons when consent is given for a project which has been subject to EIA. The revised Town and Country Planning (Assessment of Environment Effects) Regulations will also consolidate parts of the previous wide array of legislation.

Welcome though these changes are, there are still a number of issues on which the amended procedures 'remain silent'. The vital step of 'completing the circle' in EIA through the more widespread use of monitoring and auditing will still not be mandatory. Similarly, whilst there is some movement towards increasing public participation, it does not go far enough; nor is there much emphasis put on a 'whole-of-environment' approach, with a more balanced consideration of both bio-physical and socio-economic impacts. The slow progress towards the development of tiered assessment through the introduction of SEA has already been noted.

## **Conclusions and Future Agenda**

In the UK, EIA has come a long way and has

many demonstrable strengths. The implementation of the amended EIA Directive (97/11/EC) and the subsequent UK Regulations and Circular will address a number of the identified weaknesses, such as the limited and discretionary consideration of alternatives. Progress on the consideration of cumulative impacts, improved consultation and participation, and on the simplification of regulations, should also result. Some developments in SEA are also anticipated, providing an improved framework of tiered assessment.

Progress remains necessary on several other issues, including a 'whole-of-environment' approach, more effective public participation, and monitoring and auditing. EIA should serve as an adaptive, organisational learning process in which the lessons experienced are fed back into policy, institutional and project design. There are some recent examples of the application of EIA at increasingly early stages of project design. For example, the *Design Manual for Roads and Bridges* (DoT, 1993) requires a three-stage approach covering, in turn, broadly defined route corridors, route options and the chosen route. British Gas also now uses three levels of environmental analysis for its pipelines, from broad feasibility studies to detailed design (Parkinson, 1996). Such application of EIA to the early stages of project planning helps to improve project design and to avoid the delayed and costly identification of environmental constraints that ensues from carrying out an EIA once the project design is completed.

There is the potential for EIA to become increasingly important in decision making on development actions in the UK, and from the perspectives of the key participants in the process. The amended EC Directive and the associated UK Regulations are likely to bring more local planning authority involvement, including scoping advice, consideration of alternatives, and a wider range of projects, bringing EIA more centrally into the decision-making process. Pressure groups and the general public should benefit from improved information and earlier consultation, which may lead to a perception of more fairness and equity in an EIA system which will be less easily bypassed in the approval process. As noted earlier, the

government believes that improving procedures, for example on the clarification of the criteria and thresholds for deciding which projects should have EIA, should help to improve consistency in application across the country (DETR, 1997a). The government has indicated that it will review the amended procedures after two years of operation; hopefully this will provide evidence of further progress in the development and implementation of EIA in the UK context.

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## Note

1. The UK terminology until 1999 has been ES (Environmental Statement) and EA (Environmental Assessment), in contrast with the more internationally recognised terms of EIS and EIA. The terms are used interchangeably in this paper. Since the revised UK Government Circular of 1999, there has been a reversion to the use of EIA, but still ES (DETR, 1999b).

## References

Andrews, K. (1980) *The Concept of Corporate Strategy* (Homewood, IL, R.O. Irwin).

Brock, D. (1993) IPC authorisations vs planning permission, *Environmental Policy and Practice*, 2, p. 4.

Bryson, J. (1995) *Strategic Planning for Public and Nonprofit Organisations* (San Francisco, CA, Jossey Bass).

Clark, B. D., Chapman, K., Bissett, R. & Wathern, P. (1976) *Assessment of Major Industrial Applications: A Manual*, Department of the Environment Research Report No. 13 (London, HMSO).

Commission of the European Communities (1985) On the assessment of the effects of certain public and private projects on the environment, *Official Journal* L175 5.7.1985 (Brussels, Commission of the European Communities).

Commission of the European Communities (1992) *Towards Sustainability: A European Community Programme of Policy and Action in Relation to the Environment and Sustainable Development*, Vol. II (Brussels, Commission of the European Communities).

Commission of the European Communities (1993) *Report from the Commission of the Implementation of Directive 85/337/EEC*, COM(93), 28 Final (Brussels, Commission of the European Communities).

Commission of the European Communities (1996a) *Evaluation of the Performance of the EIA Process; Vol 1: Main Report; Vol 2: Member State Reports* (Brussels, Commission of the European Communities).

Commission of the European Communities (1996b) *Council Directive 96/61/EC of 24 September 1996 on Integrated Pollution Prevention and Control* (Brussels, Commission of the European Communities).

Commission of the European Communities (1997) *Council Directive 97/11/EC of 3 March 1997 Amending Directive 85/337/EEC*, *Official Journal*, L73/5 (Brussels, Commission of the European Communities).

Commonwealth Environmental Protection Agency (1994) *Review of Commonwealth Environmental Impact Assessment* (Canberra, Commonwealth Environmental Protection Agency).

Council for the Protection of Rural England (1991) *The Environmental Assessment Directive—Five Years On* (Council for the Protection of Rural England, London).

Council for the Protection of Rural England (1996) *Greening Government—From Rhetoric to Reality* (London, Council for the Protection of Rural England).

Council on Environmental Quality (1978) *National Environmental Policy Act. Implementation of Procedural Provision*, Federal Register (Washington, Council on Environmental Quality).

Culhane, P. J. (1993) Post-EIS environmental auditing: a first step to making rational environmental assessment a reality, *Environmental Professional*, 15, pp. 66–75.

Department of the Environment (1991) *Policy Appraisal and the Environment* (London, HMSO).

Department of the Environment (1993) *Environmental Appraisal of Development Plans: A Good Practice Guide* (London, HMSO).

Department of the Environment (1994a) *Evaluation of Environmental Information for Planning Projects: A Good Practice Guide* (London, HMSO).

Department of the Environment (1994b) *Environmental Appraisal in Government Departments* (London, HMSO).

Department of the Environment (1995) *Preparation of Environmental Statements for Planning Projects that Require Environmental Assessment* (London, HMSO).

- Department of the Environment (1996) *Changes in the Quality of Environmental Statements for Planning Projects: Research Report*. Report by Impact Assessment Unit, Oxford Brookes University (London, HMSO).
- Department of the Environment, Transport and the Regions (1997a) *Consultation Paper: Implementation of EC Directive (97/11/EC) on Environmental Assessment* (London, Department of the Environment, Transport and the Regions).
- Department of the Environment, Transport and the Regions (1997b) *Consultation Paper: Implementation of Directive (97/11/EC)—Determining the Need for Environmental Assessment* (London, Department of the Environment, Transport and the Regions).
- Department of the Environment, Transport and the Regions (1999a) *Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999* (London, Department of the Environment, Transport and the Regions).
- Department of the Environment, Transport and the Regions (1999b) *DETR Circular 02/99: Environmental Impact Assessment* (London, Department of the Environment, Transport and the Regions).
- Department of Transport (1993) *Design Manual for Roads and Bridges, Vol. 11: Environmental Assessment* (London, HMSO).
- Eastman, C. (1997) The treatment of alternatives in the environmental assessment process, M.Sc. dissertation (Oxford, Oxford Brookes University).
- Environment Agency (1996) *Scoping Guidance Notes* (London, HMSO).
- Environmental Data Services Ltd (1993) *ENDS—Environmental Consultants Directory: 1993/94 Edition* (London, Environmental Data Services Ltd).
- Environmental Data Services Ltd (1997) *ENDS—Environmental Consultants Directory: 1997/98 Edition* (London, Environmental Data Services Ltd).
- Frost, R. (1997) EIA monitoring and audit, in: J. Weston (Ed.) *Planning and EIA in Practice*, pp. 141–164 (Harlow, Longman).
- Glasson, J. (1984) Local impacts of power station developments, in: D. Cope, P. Hills & P. James (Eds) *Energy Policy and Land Use Planning*, pp. 123–145 (Oxford, Pergamon).
- Glasson, J. (1995) Regional planning and the environment: time for a SEA change, *Urban Studies*, 32(4–5), pp. 713–731.
- Glasson, J. & Heaney, D. (1993) Socio-economic impacts: the poor relations in British environmental impact statements, *Journal of Environmental Planning and Management*, 36(3), 335–343.
- Glasson, J., Therivel, R. & Chadwick, A. (1999) *An Introduction to Environmental Impact Assessment: Second Edition* (London, UCL Press).
- Health and Safety Executive (1998) *Environmental Impact Assessment: Dismantling and Decommissioning Nuclear Reactors and Power Stations* (London, Health and Safety Executive).
- International Association for Impact Assessment (1994) Report of special committee on guidelines on principles for social impact assessment, *Impact Assessment*, 12(2), special issue.
- Institute of Environmental Assessment and the Institute of Terrestrial Ecology (1995) *Guidelines for Baseline Ecological Assessment* (London, E. & F.N. Spon).
- Jones, C. E. (1995) The effect of environmental assessment on planning decisions, *Report*, October, pp. 5–7.
- Lee, N. & Colley, R. (1991) Reviewing the quality of environmental statements: review methods and findings, *Town Planning Review*, 62(2), pp. 239–248.
- Lee, N., Walsh, F. & Reeder G. (1994) Assessing the performance of the EA process, *Project Appraisal*, 9(3), pp. 161–172.
- Lee, N. & Wood, C. (1984) Environmental impact procedures within the European Economic Community, in: R.D. Roberts & T.M. Roberts (Eds) *Planning and Ecology* (London, Chapman Hall).
- Liefferink, J., Lowe, P. & Mol, A. (Eds) (1993) *European Integration and Environmental Policy* (London, Bellhaven).
- Lowe, P. & Ward, S. (1998) *British Environmental Policy and Europe* (London, Routledge).
- Manning, M. (1991) *The Role of Environmental Assessment in Power System Planning*. Paper presented to IBC/IEA conference on Advances in Environmental Assessment (London, IBC).
- McNab, A. (1997) Scoping and public participation, in: J. Weston (Ed.) *Planning and EIA in Practice*, pp. 60–77 (Harlow, Longman).
- Odum, W. (1982) Environmental degradation and the tyranny of small decisions, *Bio-Science*, 32, pp. 728–729.
- O’Riordan, T. (1990) EIA from the environmentalist’s perspective, *VIA*, 4 March, p. 13.
- Ortolano, L. (1993) Controls on project proponents and environmental impact assessment effectiveness, *The Environmental Professional*, 15.
- Parkinson, P. (1996) *Best Practice for the Environmental Assessment of Pipelines*. Paper presented to IBC conference on Advances in Environmental Assessment. (London, IBC).
- Petts, J. & Eduljee, G. (1994) *Environmental Impact*

- Assessment for Waste Treatment and Disposal Facilities* (Chichester, John Wiley).
- Sadler, B. (1996) *Environmental Assessment in a Changing World: Evaluating Practice to Improve Performance*, International study of the effectiveness of environmental assessment (Canada, CEAA).
- Sheail, J. (1991) *Power in Trust: The Environmental History of the CEBG* (Oxford, Oxford University Press).
- Therivel, R. (1998) Strategic environmental assessment of development plans in Great Britain, *Environmental Impact Assessment Review*, 18(1), pp. 39–57.
- UK Environmental Law Association/Institute of Environmental Assessment (1993) *Overlaps in the Requirement for Environmental Assessment*, A report of the UK Environmental Law Association and Institute of Environmental Assessment Working Party on Environmental Assessment and Integrated Pollution Control (Lincoln, Institute of Environmental Assessment).
- Wathern, P. (Ed.) (1988) *Environmental Impact Assessment: Theory and Practice* (London, Unwin Hyman).
- Weston, J. (1995) Consultants in the EIA process, *Environmental Policy and Practice*, 5(3), pp. 131–134.
- Wood, C. M. (1995) *Environmental Impact Assessment: A Comparative Review* (Harlow, Longman).
- Wood, G. & Bellanger, C. (1999) *Directory of Environmental Impact Statements: Working Paper No 179* (Oxford, School of Planning, Oxford Brookes University).
- World Bank (1995) *Environmental Assessment: Challenges and Good Practice* (Washington DC, World Bank).