USING SEA TO MAINSTREAM SUSTAINABLE DEVELOPMENT: SOME LESSONS FROM SCOTTISH PRACTICE

Tony Jackson, Barbara Illsley

Strategic environmental assessment (SEA) is now a requirement for virtually all new Scottish public sector strategies, plans and programmes (SPPs), whether of a statutory or of a voluntary nature, which are deemed likely to have significant environmental effects. This major extension of the EU SEA Directive by the Scottish Government has been deliberately designed to mainstream sustainable development in Scottish policy formulation. The paper reviews current progress in this direction, raising some issues of principle and practice in the use of SEA before considering how SEA can be combined with environmental modelling techniques to deliver the challenging climate change targets adopted by Scottish public bodies.

INTRODUCTION

United Kingdom (UK) legislative devolution in the 1990s created four different jurisdictions within the country, each of which has set the EU strategic environmental assessment (SEA) Directive (CEC, 2001) into its own legal framework. In Scotland, the Scottish Parliament exercises competence in SEA for matters pertaining to purely Scottish issues. Any issue that extends beyond its boundaries is covered by legislation enacted by the UK Parliament, which legislates for both the English and UK-wide aspects of the Directive. The manner in which the SEA Directive has been transposed into law has been markedly different in these two legislatures.

The UK Parliament confined its efforts to issuing a statutory instrument (SI2002/1633, 2004), which put into effect the minimum requirements of the Directive at English and UK levels. It has subsequently provided guidance on implementing this instrument as part of a more general requirement applicable in England and Wales to undertake sustainability appraisal of new development plans (ODPM, 2005; 2006). By contrast, the Scottish Parliament replaced its own statutory instrument for SEA (SSI2004/258, 2004) with new primary legislation: the Environmental Assessment (Scotland) Act (SP, 2005).

The 2005 Act extended the scope of SEA in Scotland well beyond the EU Directive, which only covers statutory plans and programmes that ‘set the framework for future development’. Scottish jurisdiction now places a legal obligation on all Scottish public bodies to apply SEA to the preparation of any new public sector strategies, plans and programmes (SPPs), including non-statutory (voluntary) SPPs, that are considered likely to have significant environmental effects. Scottish Ministers lauded this legislation as ‘offering an opportunity for Scotland to be a world leader in SEA’ (Jackson & Illsley, 2006: 369).

At the same time, the Scottish Government established an SEA Gateway to oversee the implementation of its new SEA legislation, and to ensure that public bodies with SPPs liable to SEA (referred to as ‘responsible authorities’) comply with the requirements of the Act. The Gateway co-ordinates the activities of the three Scottish statutory environmental consultees (Scottish Natural Heritage, Scottish Environment Protection Agency and Historic Scotland), who have a statutory obligation to review the application of SEA on new Scottish public sector SPPs (Jackson & Illsley, 2006).

The Gateway collates the opinions of the statutory environmental consultees on the screening and scoping of SPPs potentially liable to SEA, and on the subsequent consultative stage of the environmental report of any SEA. It also maintains an electronic SEA guide (termed a ‘toolkit’) to assist responsible authorities when undertaking an SEA for any new SPP (SE, 2006), and is funding a pathfinder project to identify good SEA practice amongst responsible authorities (SEEG, 2005a).

These arrangements help ensure the Scottish Government is better placed to monitor and evaluate the impact of SEA on public sector policy formulation and implementation in Scotland than the executive arms of government in other parts of the UK, where there is no supervisory body and where large areas of policy formulation are exempted from the SEA process. The first part of our paper outlines some of the issues of principle and of practice that have emerged in Scotland under this regime. The second reviews areas of future potential in the development of SEA, in particular with respect to the delivery of Scottish climate change targets.
ISSUES OF PRINCIPLE: SHOULD SEA OPERATIONALISE SUSTAINABILITY OR PROMOTE REFLEXIVE GOVERNANCE?

The minimalist approach taken by the executive arms of government in the rest of the UK to the implementation of the SEA Directive suggests that these other jurisdictions regard SEA simply as a means of ‘operationalising’ the implementation of sustainable government practices: translating a concept already agreed in principle into something workable in practice. However, restricting SEA to this narrow role radically curtails debate on the real trade-offs entailed in pursuing alternative development paths (Jackson & Illsley, 2007). SEA can instead be viewed as part of a much broader process of reflexive governance. Stirling (2006: 50) contends that SEA should be viewed as part of a reflexive approach to governance that promotes a shift from purely expert-driven methodologies towards “more inclusive ‘upstream’ processes of participatory deliberation”.

Some essential elements of a reflexive approach to environmental governance can be found in the aims underpinning the Scottish SEA legislation. The policy memorandum to the 2005 Act (SPCB, 2005) envisages SEA as a means of ‘operationalising’ the implementation of sustainable government practices: translating a concept already agreed in principle into something workable in practice. However, restricting SEA to this narrow role radically curtails debate on the real trade-offs entailed in pursuing alternative development paths (Jackson & Illsley, 2007). SEA can instead be viewed as part of a much broader process of reflexive governance. Stirling (2006: 50) contends that SEA should be viewed as part of a reflexive approach to governance that promotes a shift from purely expert-driven methodologies towards “more inclusive ‘upstream’ processes of participatory deliberation”.

By extending the application of SEA to virtually all new Scottish public sector SPPs, regardless of whether these are required by law or simply voluntarily, Scottish Ministers explicitly acknowledged (SPCB, 2005) that these provisions were intended to bring its public servants up to speed on the need for environmental proofing of their future proposals, and to mainstream the environment in Scottish public sector policy formulation. It is estimated that these provisions will more than double the number of Scottish SEAs undertaken annually, compared with the obligations under the SEA Directive (Jackson & Illsley, 2006). This additional commitment to formal public engagement in the environmental implications of Scottish governance allows SEA to assume a central role in discharging the procedural aspects of environmental justice in Scotland.

The capacity to track the application of the technique throughout Scotland via the SEA Gateway will gradually allow the growing database of tiered assessments to be transformed into a spatial and sectoral mapping of the environmental impacts of Scottish policy formulation. Through this facility the Scotland Government can acquire the capacity to take account of “the social, economic and environmental consequences of the assessment process, with decisions driven by the recognition that certain groups tend to systematically lose out in the distribution of environmental goods and bads” (Connelly & Richardson, 2005: 393). By linking this assessment process to an explicit mechanism for reconciling the conflicting values so revealed, SEA will form part of a reflexive approach to governance that addresses the substantive aspects of environmental justice.

To date, however, there has been little attempt to flesh out the Scottish Government’s commitment to environmental justice by enunciating principles or opening a debate on what environmental rights, if any, should be embodied in efforts to promote a more equitable distribution of the consequences of public sector actions. Instead, the focus has more recently shifted towards measuring the global warming impact of Scottish public bodies and their SPPs. In the penultimate section of the paper, we consider how the use of SEA and environmental modelling techniques can assist in this endeavour.

ISSUES OF PRACTICE

Scotland is now in the fourth year of applying the Directive, and it is becoming possible to identify certain patterns. The first three years saw 56 Scottish responsible authorities commence 220 SPPs requiring an SEA. The Scottish SEA Gateway handled 350 formal consultations seeking screening and scoping opinions from the three Scottish statutory environmental consultees (Deasley, 2007). The experience of SEA over this period has been mixed.

On the positive side, the impact of the wider remit of the 2005 Act is becoming evident. While more than a third of the SEAs generated over this period have been for statutory and non-statutory spatial development plans, a wide range of other SPPs has been subject to SEA. These cover energy, transport, waste management, tourism, agriculture, forestry and fisheries. Many of these would not have triggered an SEA under the restricted scope of the EU Directive. Table 1 provides a summary by sector of the SPPs within the Scottish SEA process during 2007.

The 2005 Act has considerably extended the scope of SEA even within the area of competence on which the EU Directive is primarily focused: spatial planning. Table 2 reproduces Deasley’s (2007) analysis of the

<table>
<thead>
<tr>
<th>Sector</th>
<th>SPPs carried from previous years</th>
<th>SPPs started in 2007</th>
<th>% of total SPPs active in 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>2</td>
<td>0</td>
<td>1.1</td>
</tr>
<tr>
<td>Forestry</td>
<td>1</td>
<td>1</td>
<td>1.1</td>
</tr>
<tr>
<td>Fisheries</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Energy</td>
<td>4</td>
<td>4</td>
<td>4.5</td>
</tr>
<tr>
<td>Industry</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Transport</td>
<td>14</td>
<td>11</td>
<td>14</td>
</tr>
<tr>
<td>Waste Management</td>
<td>2</td>
<td>0</td>
<td>1.1</td>
</tr>
<tr>
<td>Water Management</td>
<td>0</td>
<td>5</td>
<td>2.8</td>
</tr>
<tr>
<td>Telecommunications</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Tourism</td>
<td>2</td>
<td>13</td>
<td>8.4</td>
</tr>
<tr>
<td>Town &amp; Country Planning</td>
<td>23</td>
<td>52</td>
<td>41.9</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>12</td>
<td>33</td>
<td>25.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>60</strong></td>
<td><strong>119</strong></td>
<td><strong>179</strong></td>
</tr>
</tbody>
</table>
74 Scottish spatial development plans submitted to the SEA Gateway up to the end of July 2007. The 36 formal development plans required by statute (Structure and Local Plans) would have come under the 2004 SEA regulations which simply transposed the EU Directive. The rest, Scottish Planning Policies, supplementary planning guidance and masterplans which together make up just over half the total, would in most cases have been exempt from the EU Directive. Under the comprehensive definition subsequently applied in the 2005 Act, most of these SPPs have been determined as requiring an SEA. As a result, Scottish planning authorities now assume that the preparation of any SPP relating to land use is likely to include formal proofing for its environmental implications.

<table>
<thead>
<tr>
<th>Plan type</th>
<th>Total</th>
<th>SEA applied</th>
<th>Screened out</th>
<th>Undetermined</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning framework</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Scottish Planning Policies</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Structure Plans</td>
<td>7</td>
<td>7</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Local Plans</td>
<td>29</td>
<td>29</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Supplementary Planning</td>
<td>12</td>
<td>8</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Guidance</td>
<td>21</td>
<td>10</td>
<td>8</td>
<td>3</td>
</tr>
</tbody>
</table>

On the negative side, whilst the application of SEA has now become almost standard, the quality of the assessment undertaken remains highly variable, even within the sector that had some previous exposure to environmental assessment before it became a statutory obligation: town and country planning. In part, this is due to the acquisition of poor practices within planning authorities during the voluntary phase of the exercise. When they tested embryonic forms of environmental assessment during the decade preceding the legal adoption of SEA, very few Scottish planning authorities attempted to undertake this in-house. Instead, most commissioned consultants to undertake a brief retrospective SEA in the later stages of the formulation of new development plans (Esson et al., 2004). Jackson & Illsley (2007: 613) criticised the practice of “stapling a full [SEA] onto a finalised version of a plan without undertaking even a prior scoping stage” as “frustrat[ing] attempts to use [SEA] iteratively to make informed choices about the relative sustainability of options in the early stages of preparation”. They concluded that during the period when such assessment was purely voluntary, the “absence of formal arrangements for consultation with outside bodies and failure to monitor subsequent implementation... reduced many pre-Directive [SEAs] to little more than self-administered ‘stamps of approval’ (ibid.)."

The implementation of statutory SEA obligations has forced a gradual shift of practice towards meeting the ‘front-loaded’ emphasis of the SEA Directive. This requires that responsible authorities should start applying the technique in the initial stages of plan preparation, when the strategic options have to be examined for their environmental implications. An example of good practice in this respect is provided by the SEA for the second Scottish National Planning Framework, which has just completed its consultative phase.

The Planning Directorate of the Scottish Government, as the responsible authority, not only issued a comprehensive consultative environmental report (SG, 2008a) accompanied by a non-technical summary (SG, 2008c). It also offered a supplementary report on its environmental assessment of strategic alternatives, undertaken at the outset of the preparation cycle (SG, 2008b). This outlined the strategic options considered as part of the early development of the new national planning framework, identifying and comparing their respective environmental effects. The supplementary report then goes on to demonstrate how these findings were used to inform the development of the preferred strategy underpinning the consultative version of the national planning framework, which the main part of the SEA environmental report assesses in more detail. By contrast, elsewhere in the UK two new statutory spatial development plans undertaken have recently been ruled legally non-compliant with the SEA Directive, inter alia because of a failure to apply the technique sufficiently early in the plan preparation process (Current Topics, 2008). In its judicial review of the process finding in favour of the plaintiffs, the High Court of Northern Ireland ruled that the development of the draft plans had reached an advanced stage before their environmental reports had been commenced, so there was no opportunity for the latter to inform the development of the former, as required under the Directive. Moreover, the High Court considered that the responsible authority had not sufficiently complied with another requirement of the Directive to undertake adequate public consultation on the environmental report during the preparation of the plans.

This judgement had widespread reverberations across the Scottish planning community, with one planning authority initially announcing that it was preparing to abandon all its current preparation of new development plans, on the basis that these could be exposed to the same legal strictures (PKC, 2008). With other Scottish planning authorities finding themselves in a similar position, the Scottish Government moved to grant them exemptions from the strict requirements of the Directive in respect of ‘front-loading’. Despite the appearance of a number of examples of best-practice at local authority level to complement the Scottish Planning Directorates’s handling of the SEAs for its second National Planning Framework, the Scottish Government’s willingness to grant such exemptions threatens to leave the current generation of development plans little better in terms of public consultation and early proofing of strategic options than their predecessors (Winter, 2007).

**RECENT DEVELOPMENTS**

Elections to the Scottish Parliament in 2007 saw the Scottish Labour/Liberal Democrat administration replaced by a minority Scottish
National Party administration. One of the policy changes triggered by this new administration is an increased emphasis on the promotion of renewable energy as a central element of ambitious targets adopted by Scottish public bodies for reducing greenhouse gas (GHG) emissions. As part of a new Climate Change Bill, the Scottish Government has now adopted a Scottish Mitigation and a Scottish Adaptation Framework, both of which are designed to address the implications of global warming caused by anthropogenic GHGs (Kerr, 2008). The targets to which these frameworks are constructed require an 80% reduction in GHGs by 2050, with an interim target of 50% by 2030.

Similar targets have more recently been adopted by the UK Parliament during the passage of its Climate Change and Energy Bills, and in England and Wales these will be overseen by a new Climate Change Commission, set up to monitor UK public bodies and their forthcoming five-year carbon budgets. In Scotland, following the signing of a Single Outcome Agreement (SOA) at the start of 2008 between the new Scottish administration and the 32 single-tier Scottish local authorities (SLAs), Scottish local government has been given considerable freedom to determine optimal strategies for hitting Scottish GHG reduction targets.

In evaluating the climate change implications of their current practices and their new SPPs, one of the key tools which has recently become available to SLAs is the use of carbon accounting software. Termed the Local Footprints Project, the introduction of carbon accounting for local authorities is a joint venture by WWF Scotland and the Sustainable Scotland Network, with funding and support from Eco-Schools Scotland, the Improvement Service, the Scottish Government and Scottish Power (Paul et al., 2008). The project makes use of the Stockholm Environment Institute Resources and Energy Appraisal Programme (REAP) inter-active software package, which is designed to allow participants to model their current and projected local activities for their carbon (and ecological) footprints (Barrett et al., 2003; Barrett et al., 2007).

As part of the SOA, 22 of the 32 SLAs chose footprint indicators to monitor their activities, and the Local Footprints Project is currently training these authorities in the use of REAP. Three councils (Aberdeenshire, Aberdeen City and North Lanark) were involved in the pilot project which ran from 2004 to 2007. Seven councils (Dundee, Edinburgh, Fife, South Lanarkshire, Stirling, West Dunbartonshire, and West Lothian) are currently involved in Phase 1 of the full project, and by 2009 all 32 SLAs will be offered these facilities. At the present stage of development, 9 SLAs have received introductory REAP training, which entails developing and scoping scenarios, such as Local Housing and Transport Strategies, assessment of community growth areas, and the application of REAP in SEAs of SPPs. Three councils have already developed footprint reduction strategies.

The REAP model is becoming widely accepted as a basic planning tool for Scottish public bodies. It is a natural development of earlier environmental modelling techniques. In the early 1990s, the then Scottish Office and the Fraser of Allander Institute at Strathclyde were experimenting with adding environmental coefficients to the basic Scottish economic input-output (I/O) transaction matrices. These matrices were originally created to analyse the composition of the Scottish economy, and to derive economic multipliers to evaluate the effects of a change in economic activity on the rest of the Scottish (or local) economy (Jackson, 2002; 2006). The original attempts to add environmental matrices to these tables simply applied conversion factors designed to map the environmental pollutants associated with a given level of economic activity (e.g. carbon dioxide emissions). The environmental matrices were then attached to the I/O variables and run to determine what would happen in terms of environmental impacts if certain sectors grew and others declined. The findings were severely constrained by the static nature of the process, in that the economic coefficients were fixed by the timing of the survey work undertaken to produce the I/O tables, as were the resulting environmental coefficients. In other words, embodied technology was frozen at the survey stage of the exercise.

Over the subsequent decade, the concepts of ecological and carbon footprints initially pioneered by Wackernegel & Rees (1996) have been used to construct dynamic resource use and energy consumption models, in which the technical coefficients embodied in the I/O matrices can be modified to allow SPPs to be tested under different environmental and economic scenarios. This facility enables the users of REAP to plug in current and projected levels of demand for housing, transport, energy and waste provision, for example, for their local areas, and to run the model to determine probable resource and GHG outcomes. SLAs can then assess the environmental consequences of delivering economic targets for their economies on the basis of existing economic and environmental coefficients. They can then test this against a range of alternative scenarios, by plugging in potential improvements in the economic and environmental coefficients to determine whether and to what extent the environmental implications of achieving the economic targets set out in SPPs can be ameliorated.

A recent example of the use of this application is provided by the East of England Development Agency (SWQ Consulting & Cambridge Econometrics, 2008). The Agency commissioned a sustainability appraisal (equivalent to an SEA with added economic and social evaluations) of its new Regional Economic Strategy (RES). Part of this assessment involved running a REAP exercise to quantify the environmental implications of adopting the economic targets. The exercise was confined to three key variables: waste arisings, water usage and carbon emissions.

The model was run to establish whether these three variables would comply with UK Government and Agency targets for sustainable resource use, assuming the East of England’s RES and Regional Spatial Strategy (RSS) were to be realised. On the first run of the model, applying realistic technical coefficients and parameters, the consultants concluded that some inherent decoupling of economic growth from resource use could be expected within East of England up to 2031 without any specific intervention, but that by itself this unmodified development pathway would fail to meet the ambitious targets for these variables incorporated in the area’s RES & RSS. From this, the model was run again incorporating a
range of additional pro-active measures that would be needed to realise spatial economic development targets for the East of England within the tighter environmental constraints desired. Table 3 lists the range of policy options identified by the consultants as additional requirements in order to deliver the desired outcomes.

**Table 3: Policy options required to deliver RES/RSS East of England environmental targets**

<table>
<thead>
<tr>
<th>Sector</th>
<th>Incremental or national policies</th>
<th>Additional or regional/local policies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic</td>
<td><strong>Incremental policies</strong>&lt;br&gt;• environmental standard regulations on new development&lt;br&gt;• retro-fitting new homes national campaign&lt;br&gt;• household waste and recycling pay as you throw&lt;br&gt;• energy efficiency regulations via planning for extensions</td>
<td><strong>Additional policies</strong>&lt;br&gt;• minimum domestic resource efficiency standards at point of sale&lt;br&gt;• minimum resource efficiency standards on products and appliances sold in the UK</td>
</tr>
<tr>
<td>Transport</td>
<td><strong>Incremental policies</strong>&lt;br&gt;• local planning to encourage modal shift&lt;br&gt;• encourage business travel plans&lt;br&gt;• investment to ensure efficient use of infrastructure&lt;br&gt;• improvement of infrastructure capacity&lt;br&gt;• incentivise use of fuel efficient cars</td>
<td><strong>Additional policies</strong>&lt;br&gt;• local planning to encourage modal shift&lt;br&gt;• regional alternative fuels pilot</td>
</tr>
<tr>
<td>Industrial and commercial</td>
<td><strong>Incremental policies</strong>&lt;br&gt;• incentivise environmental management systems and carbon clubs&lt;br&gt;• regulate environmental standards for new commercial development&lt;br&gt;• integrate resource use advice into mainstream business support&lt;br&gt;• regional carbon reduction scheme</td>
<td><strong>Additional policies</strong>&lt;br&gt;• requirement for all VAT-registered businesses to report on resource use&lt;br&gt;• requirement on all commercial landlords to develop resource efficiency plans for buildings</td>
</tr>
<tr>
<td>Energy generation</td>
<td><strong>National policies</strong>&lt;br&gt;• carbon capture and storage&lt;br&gt;• UK nuclear policy&lt;br&gt;• Renewable Obligation Certificates (ROCs)</td>
<td><strong>Local/regional policies</strong>&lt;br&gt;• encourage and enable micro and distributed generation&lt;br&gt;• special planning status for renewable/ distributed generation</td>
</tr>
</tbody>
</table>

Without the capacity to model the local economy in this way, to run alternative scenarios, and to quantify the alternative outcomes, the planners responsible for the RES and RSS for the East of England Development Agency would have had to rely on the traditional non-quantitative ‘wing-and-a-prayer’ subjective judgements, which simply ask their clients to believe ‘expert’ judgement that such plans will work. Such an attitude towards discharging their responsibilities with respect to SEA (and sustainability appraisal in England and Wales) has imbued UK planning practitioners with a well-deserved reputation for using assessment procedures merely as a convenient means of ‘rubber-stamping’ preconceived options, and of discarding potentially more sustainable alternatives at the outset with insufficient consideration.

It would also imbue assessors with the professional credibility necessary to pursue a dialogue with stakeholders on ways of using the technique to reconcile alternative interpretations of sustainability”.

The SLAs Low Footprint Project currently draws on a set of databases, such as the National Footprint Accounts collated by WWF UK (Calcott & Bull, 2007) and the Environmental Accounts produced by Office for National Statistics, to generate ecological and carbon footprints both on a producer and on an end-user basis (Paul et al, 2008). The former provide valuable insights for national policy-makers into the pattern of emissions generated by the spatial dispersion of economic activities. However, the latter offer the most effective basis for SLAs to modify their GHGs, since they identify the carbon footprints of local patterns of consumption of goods and services.

Such information is integral in assessing the environmental impacts of new SPPs. The capacity to model these effects should offer local government in Scotland an objective means of applying SEA to the development process, allowing the environmental outcomes of different tiers of SPPs to be compared using a common standard. This in turn will assist in identifying incompatibilities in assumptions and proposed interventions across the 32 SLAs, with individual SPPs able to be tied into the new National Planning Framework on a quantifiable basis.

At present, the 22 SLAs actively involved in carbon footprinting are on the initial stages of a learning curve (Fulton, 2008). Some find it difficult to fit very specific assumptions to their vague policy objectives in order to model the potential outcomes, suggesting that the Low Footprint Project may have unintended beneficial consequences in filtering out indeterminate aspirations from the final input to development plans. Others find the modelling process identifies further areas of uncertainty which require work on local coefficients and parameters to refine and supplement the national databases. Here again, the exercise is identifying shortcomings that need to be addressed if the Scottish Government’s ambitious climate change targets are to be achieved.
Another concern expressed by SLAs is that their findings may be challenged by objectors during the public consultations required before development plans can be adopted. This reservation reflects an outdated technical-rationalist conception of the process of decision-making, which holds that 'experts' can glean little from community engagement in the planning process. The opportunity to challenge quantifiable SEA outcomes should instead be welcomed as a contribution towards the realisation of reflexive governance in the delivery of sustainable development (Jackson & Illsley, 2007).

CONCLUSIONS

The UK Government funds a Sustainable Development Research Network, which is intended to link the world of academic research with that of government, so that policy-making is informed by research outcomes on sustainable development. The Network recently commissioned a report (SDRN, 2008) on the application of sustainability appraisal to spatial planning in England and Wales, which examines current experience in these jurisdictions of combining an SEA with economic and social appraisals to determine the sustainability of statutory development plans. Critics of this approach (e.g. Owen & Cowell, 2002) suggest that the opportunity to combine economic, social and environmental assessments and match them against a government-determined sustainable development framework negates much of the intended value of SEA as a forensic tool for identifying the adverse environmental effects of the development process and addressing these in the proofing process for new development plans.

The report on sustainability appraisal highlights the difficulties that planning authorities in England and Wales encounter in applying this technique to new development plans. Three key problem areas are identified: the acquisition of suitable databases for testing options and determining the significance of effects; uncertainty about the extent to which appraisals actually modify the plans they assess; and the obstacles confronting attempts to co-ordinate appraisal methodologies between planning authorities which are conterminous, and across different tiers of planning, to achieve a coherent set of assessment for spatial policies that operate at more than one level and across more than one authority (SDRN, 2008).

We noted earlier that Scotland enjoys the benefits of an SEA Gateway designed to oversee and collate SEA practice across Scotland, a facility that is unique within the UK. During public consultations on the Environmental Assessment (Scotland) Act 2005, vigorous representations were made to establish an SEA unit which would be independent of the Scottish Government (McLauchlan & João, 2005). Although this aim was never realised, the Scottish Cabinet Secretary for Finance and Sustainable Growth, John Swinney, recently announced as part of the outcomes from his review of the Scottish planning system (SG, 2008d) that the Scottish Government’s SEA Gateway would be upgraded into a dedicated unit to support the requirements of Scottish public bodies undertaking SEA on their SPPs.

The previous Scottish administration’s emphasis on delivering environmental justice has been downgraded with the advent of an SNP administration. The focus is now on encouraging and supporting Scottish public bodies in delivering effective climate changes outcomes sufficient to meet the administrations ambitious GHG targets. The combination of SEA with the environmental modelling opportunities offered by REAP through the Low Footprint Project currently being rolled out for SLAs offers Scotland the chance to deliver the outcomes found lacking in the practice of sustainability appraisal in England and Wales, and by doing so help meet the challenge of global warming.

An upgraded SEA Gateway would be able to co-ordinate SEA practice on a spatial basis both across public sector planning bodies operating at the same level and also through different tiers of decision-making. Training the 32 SLAs in the use of REAP to assess their new SPPs by identifying and quantifying viable environmental options at an early stage in the formulation of SPPs, and encouraging widespread use of this software package so that practitioners and the public can converse in a common language in evaluating the impact of the development process in different parts of Scotland and at different levels of decision-making, would transform the use of SEA as a planning tool intended to improve environmental governance. It would also address many of the difficulties identified by the Sustainable Development Research Network when examining the practice of sustainability appraisal in England and Wales.

These recent developments in the practice of SEA within the Scottish jurisdiction emphasise the continuing importance of environmental assessment. The specific goal of environmental justice is no longer stressed by the current Scottish administration. Nevertheless, since the adverse effects of global warming are likely to fall disproportionately on the most disadvantaged members of society, if SEA can be combined with environmental modelling techniques to help Scottish public bodies modify the development process sufficiently to ameliorate these, some of the central aims of environmental justice will have been realised.

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