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# THE APPLICATION OF STRATEGIC ENVIRONMENTAL ASSESSMENTS IN THE UK FISHERIES SECTOR

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The **Institute for European Environmental Policy (IEEP)** is an independent institute with its own research programmes. Based in London and Brussels, the Institute's major focus is the development, implementation and evaluation of EU policies of environmental significance, including agriculture, fisheries, regional development and transport. This paper was commissioned by WWF to support it in taking forward its marine programme, and work on marine spatial planning and environmental assessments in particular.

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## FOREWORD

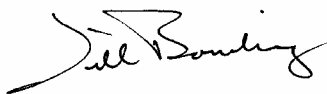
In 2001, the European Union adopted the Directive on the Assessment of the Effects of Certain Plans and Programmes on the Environment (2001/42/EC). The Directive is designed to ensure that the “environmental consequences of certain plans and programmes are identified and assessed during their preparation and before their adoption”. Under the terms of the Directive, competent authorities, stakeholders and the public can give their views on the results of assessment reports which should then be taken into consideration during the decision-making process.

The Directive therefore offers enormous potential for EU Member States to realise one of the main aims of the reformed Common Fisheries Policy (CFP) – the sustainable exploitation of fisheries, with the involvement of stakeholders at all levels. For the first time, too, it will allow the fishing sector to integrate its activities with those of other marine users in a planned and proactive way, placing it on a par with energy production, gravel extraction and other marine uses. Crucially, important data gathered as part of the SEA process will protect vital fish spawning and nursery grounds and the seas above them from developments and cumulative impacts that disturb the habitat and pollute the surrounding environments. As with other sectors, this data can be applied to a host of fisheries management issues and considerably improve our understanding of marine ecosystems.

The introduction of a UK Marine Act in 2008 will require marine spatial planning to be used as a way of minimising environmental damage and improving the sustainability of many marine industries. SEA will be an integral part of this planning process because the plans submitted under the Act will be subject to a strategic environmental assessment before they can be approved.

The application of SEA to the fisheries sector has not been attempted before in the EU; consequently many questions remain unanswered. Who should carry out the assessments, who should pay, how will potential conflicts be resolved? This report attempts to address some of these questions and provide decision-makers with sufficient background information to apply SEA as a cost-effective policy instrument. WWF commissioned IEEP to investigate the requirements of the Directive and report on best practice from around the world; to highlight the differences between an Environmental Impact Assessment (EIA) and SEA; and to define what plans and programmes might be relevant. This report is intended as a contribution to the discussion and evolution of this new legislation and is not a reflection of WWF’s final position on the matter. The contents of the report are the opinion of the authors and not WWF.

However, WWF would strongly advocate that SEA procedures are applied spatially and temporally to all fishing plans and programmes so that their likely (and actual) environmental impacts can be accurately assessed and mitigated. WWF believes that the assessments should be carried out on plans and programmes that include new fishing operations and ongoing fishing activities. This will significantly improve the sustainability of current and future fishing, and promote the wider use of technology (such as selective fishing gear) that will reduce the environmental impacts of fishing. Another helpful feature of the Directive is that it sets out the procedures for decision-making where there may be transboundary effects. In such circumstances, consultation with other Member States should occur before plans or programmes are approved.



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## EXECUTIVE SUMMARY

Strategic Environmental Assessment (SEA) is a procedural tool for assessing – *ex ante* – the impacts of plans and programmes (and in some countries also policies) on the environment. Since the introduction of the SEA Directive in July 2004, EU Member States have been required to undertake a number of SEAs. While implementing the Directive does not guarantee specific decisions, SEAs help to change processes, cultures and attitudes. They result in a more informed and transparent decision-making process – by integrating environmental considerations, and providing a clear audit trail of decisions made. New legal obligations and the potential benefits of the process (which are often not appreciated) have shifted increasing attention to the application of SEA in the UK, not least in the fisheries sector.

The SEA process presents a number of opportunities to enhance fisheries management. It can help to improve stakeholder participation and deliver a more ecosystem-based approach to fisheries management, both of which are objectives of the Common Fisheries Policy (CFP). Furthermore, the SEA process can play an important role in marine spatial planning, as it takes into account cumulative and in-combination effects of activities. These benefits have been reflected in a number of recent government and non-government report recommendations.

Despite the SEA process being embodied in national regulation, it has not been transferred satisfactorily into routine practice. In particular, it is yet to be applied to the fisheries sector. WWF-UK commissioned this report from the Institute for European Environmental Policy (IEEP) to interpret the EU SEA Directive and UK transposing regulations and assess how they apply to the management of EU and UK capture fisheries. The report reviews the details of the SEA Directive and its national transposing regulations and the implications for the fisheries sector. Other procedural impact assessment tools are reviewed, together with SEA lessons from Australia and the US. This analysis sets the scene for considering how SEA may be applied to UK capture fisheries within a spatial planning context, both within and beyond the legal requirements of the SEA Directive.

Authorities are required to undertake SEAs on certain plans and programmes that are likely to give rise to significant effects on the environment. The Directive identifies conditions under which an SEA *is* or *may be* required. It also sets out standard procedures for undertaking an SEA. The SEA Directive has a functional link to the Environmental Impact Assessment (EIA) Directive, and complements other assessment procedures including that under the EIA Directive on the assessment of projects.

The criteria for fisheries plans and programmes that *always* require an SEA are those that set the framework for future development consent of projects listed in Annex I and II of the EIA Directive. While these do not include fishing activities, they do include intensive aquaculture and fishing-related projects, such as port developments. Other fisheries-related plans and programmes that would always require an SEA are those that have been determined to require an assessment according to the Habitats Directive. Although there is no legally binding definition for “plan and programme” in this context, annually renewed fishing licences may fall under this heading.

The criteria for fisheries plans and programmes that *might* require an SEA are those that set the framework for future development consent of projects listed in Annex I and II of the EIA Directive that *cover only small areas at local level or minor modifications, but are still likely to have significant environmental effects*. A second case is fisheries plans and programmes that *set the framework for future development consent of projects that are likely to have significant environmental effects*. While not defined in the SEA Directive itself, the non-legally binding definition of projects applicable in this case, as provided in the European Commission SEA guidance document, appears to include fishing activities as “interventions in the natural surroundings”.

The types of fisheries plans and programmes that are expected to require SEAs include the forthcoming European Fisheries Fund (EFF) national strategic plans and national operational programmes, as well as any fisheries-related plans or programmes impacting on Special Areas of Conservation (SACs) or Special Protection Areas (SPAs). The inshore fisheries management plans to be developed throughout Scotland provide an example of fisheries-related plans and programmes that may legally require an SEA because they set the framework for future development consent of fishing activities likely to have significant environmental effects.

The legal analysis of when SEAs are required is clearly important in identifying Member State obligations. However, it may become academic in a UK context if the commitments of national fisheries administrations to implement recommendations to apply SEAs are met. This leads to the question of how SEA should best be applied to the fisheries sector – which may require going beyond the minimum requirements of the SEA Directive. Here, lessons from Australia and the US are an important addition to the SEA Directive and Commission and national guidance notes on SEA application.

Although details of the application of SEA to fisheries are important, there are two fundamental stumbling blocks in applying SEA to UK fisheries beyond inshore waters. First, there are few systems in place for the development of fisheries plans or programmes, thus limiting the extent to which SEAs can be applied. Second, where such fisheries plans or programmes exist, or may be developed, implementing the outcomes can be difficult because of the mismatch, and in some cases ambiguity, between the level at which mitigation measures are identified (national) and the level at which mitigation measures are generally taken (EU). This arises because of the “exclusive competence” of the EU in taking fisheries conservation measures, meaning that for fisheries conservation beyond inshore waters – 12 nautical miles (nm) – to be effective they need to be reflected in the words and details of CFP legislation.

To overcome this, a comprehensive marine spatial planning system is required that links into the EU fisheries management decision-making systems. Marine spatial planning systems have been the topic of various discussions and report recommendations. They are being explored by Defra, which may include them as part of the UK Marine Bill. However, links to EU institutions for fisheries management purposes have apparently received less attention, despite their importance.

Such links could be achieved by simply using SEA to identify mitigation measures to take to the Commission and Council. This would require effective inclusion of other Member States in the SEA process. Alternatively, a planning and SEA system could be established at the



Regional Advisory Council (RAC) level. This could help secure stakeholder buy-in and potentially make SEA an international consensus-building tool. The European Commission would probably have to play a role in ensuring the SEAs are undertaken in sufficient detail to prevent industry domination in the decision-making process from diluting the effectiveness of SEAs at delivering improvements, as was found to be the case in the US. To ensure RACs have sufficient capacity to undertake such plans and SEAs, resource issues would have to be resolved.

While the purpose of an RAC-level approach would be to ensure an international approach to fisheries planning and SEAs, safeguards would have to be developed to ensure the plans relate back down to national marine spatial planning systems. Without this, fishing activities may end up sitting outside national marine spatial plans that cover all other marine activities. This would undermine marine spatial planning efforts and the implementation of an ecosystem-based approach to managing the marine environment.

While mechanisms for national and international SEAs are worked through, there is little reason why the UK should not proceed with applying SEA, in the form of mitigation measures, to discrete inshore fisheries. From such an approach, the UK can begin to meet its obligations under the SEA Directive as well as start to generate lessons and capacity in the area. These could be transferred to the national, RAC and eventually international Regional Fisheries Management Organisation (RFMO) level.

In summary, it should be reiterated that SEAs are more about change of process, culture and attitudes than immediate outcomes, especially when the SEA process is relatively unfamiliar to those conducting the assessment. As a result, when SEA becomes resisted or grudgingly accepted by its implementers, it begins to lose its value as a tool for improving decision-making. So, while it is important that the procedures required under the SEA Directive are deliberated, the legal requirements should not become a distraction from the very purpose of SEA. To be fully effective, the process should be welcomed by implementers and stakeholders as one that improves transparency, stakeholder participation and assessment of the environmental impacts of fisheries plans and programmes, to help make the activities of the sector more sustainable.

## ACRONYMS

AFMA	Australian Fisheries Management Authority
CCAMLR	Conservation of Antarctic Marine Living Resources
CCW	Countryside Council for Wales
CEC	Commission of the European Community
CEQ	Council on Environmental Quality
CFP	Common Fisheries Policy
COM	Commission Communication
DARDNI	Department of Agriculture and Rural Development of Northern Ireland
Defra	Department for the Environment, Food and Rural Affairs
EA	Environment Agency
EC	European Community
EEA	European Environment Agency
EEC	European Economic Community
EEZ	Exclusive Economic Zone
EFF	European Fisheries Fund
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
EN	English Nature
EPA	Environmental Protection Agency
EU	European Union
ExIA	Extended Impact Assessment
FIFG	Financial Instrument for Fisheries Guidance
IEA	Integrated Environmental Assessment
IA	Integrated Assessments
ICES	International Council for the Exploration of the Seas
IEA	Integrated Environmental Assessment
IEEP	Institute for European Environmental Policy
JNCC	Joint Nature Conservation Commission
NEAFC	North East Atlantic Fisheries Commission
NEPA	National Environmental Policy Act
NERI	National Environmental Research Institute
NGO	Non-governmental organisation
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
PEIS	Programmatic Environmental Impact Statement
PMSU	Prime Minister's Strategy Unit
RAC	Regional Advisory Council
RCEP	Royal Commission on Environmental Pollution
RFMOs	Regional Fisheries Management Organisations
RIA	Regulatory Impact Assessments
RSE	Royal Society of Edinburgh
SAC	Special Area of Conservation
SEA	Strategic Environmental Assessment
SEERAD	Scottish Executive Environmental and Rural Affairs Department
SFC	Sea Fisheries Committee
SI	Statutory Instrument
SIA	Sustainability Impact Assessments

SIFAG .....Scottish Inshore Fisheries Advisory Group  
SNH.....Scottish Natural Heritage  
SPA.....Special Protection Area  
TAC.....Total Allowable Catch  
ToR.....Terms of Reference  
UK.....United Kingdom  
UNECE .....United Nations Economic Commission for Europe  
US.....United States of America  
WWF .....WWF – the global environment network

# 1. Introduction

## 1.1 THE ROLE OF SEA IN IMPROVED DECISION-MAKING

Strategic Environmental Assessment (SEA) is a procedural tool for assessing – *ex ante* – the impacts of plans and programmes (and in some countries also policies) on the environment. SEA provides the framework for a more informed and transparent decision-making process. It is only one of several existing assessment tools, but following the introduction of the EU SEA Directive (2001/42/EC), in July 2004, it has gained profile.

WWF-UK considers the SEA process to be an important part of its wider vision of marine spatial planning (WWF, 2004). It is seen as an important way of assessing the cumulative and in-combination effects of activities, contributing to improved decision-making, and delivering a more ecosystem-based approach to managing marine activities. However, as WWF-UK highlights, while the SEA process is embodied in national regulation, it has not been transferred satisfactorily into routine practice. In particular, it is yet to be applied to the fisheries sector.

The need to improve decision-making in European fisheries management is widely recognised as being important (CEC, 2001). Broad involvement of stakeholders in policy development and implementation, and the “progressive implementation of an ecosystem-based approach to fisheries management” are objectives of the CFP (Article 2, Regulation 2371/2002). SEA is, therefore, a tool that has much to offer. As such, it should appeal to stakeholders as a way to improve transparency, and help managers to meet legal obligations.

## 1.2 THE ROLE OF SEA IN SUSTAINABLE DEVELOPMENT

Where SEA systems are in place they tend to focus on the energy, transport, waste and water sectors and on land use plans. The use of SEA in fisheries is still very limited. The front runner in fisheries SEAs is Australia, with 90 strategic assessments of fisheries completed or under way (Dalal-Clayton and Sandler, 2005). Drawing on the example of the Netherlands, the application of SEA to other sectors illustrates the benefits of the SEA process:

- *SEA of the National Structure Plan for Surface Minerals* identified the elements of the decision most relevant to the environment, and its alternatives.
- *SEA of the Space for Rivers' Policy Plan* provided information on the combined environmental consequences of many measures in the plan, such as the lowering of the endyked floodplain, excavating side channels and re-routing dykes.
- *SEA of the National Waste Management Plan* compared alternative technologies for waste processing, including the best option from an environmental perspective. It developed a method to assess the environmental effects of waste treatment processes that can be used in subsequent EIAs of projects.
- *SEA of the Policy Rules on Active Soil Management* contributed to the development of guidance on dealing with polluted sludge in future river-widening projects.

(Dalal-Clayton and Sandler, 2005)

SEA is also an important tool for promoting conservation and sustainable use of biodiversity and is part of international agreements, such as the Convention on Biodiversity and the

Ramsar Convention. Many of the benefits of the SEA process apply equally to fisheries. Indeed, SEA is particularly suited to protecting and enhancing biodiversity because it can:

- build biodiversity objectives into plan development from the outset;
- provide an opportunity for those with an interest in/responsibility for biodiversity to influence plan development;
- identify biodiversity-friendly alternatives;
- focus on the longer term and larger scale;
- consider all the threats affecting biodiversity in an area, enabling identification and assessment of cumulative threats and impacts;
- suggest effective mitigation strategies to ensure no net loss of biodiversity throughout the development and implementation of plans;
- establish monitoring to provide necessary biodiversity data and to enable remedial measures to be taken on an ongoing basis; and
- be a means of applying the precautionary principle.

(from South West Ecological Surveys and others, 2004)

### 1.3 A GROWING CASE FOR SEA IN FISHERIES

There are increasing calls for the application of SEA to marine fisheries management in the UK. These calls have come from government investigations and reports, reports to government by academics and consultants, and from environmental groups.

The Prime Minister's Strategy Unit recommended in 2004 that "Fisheries departments should introduce Strategic Environmental Assessments of both inshore and offshore fisheries by the end of 2006 as the first stage of establishing comprehensive Environmental Management Systems" (PMSU 2004a). In response, the Fisheries Administrations stated their support for the SEA approach; they intend to consult with stakeholders in deciding how to take forward its application (DARDNI et al, 2005).

Other recommendations have come from:

#### ***Turning the tide: addressing the impact of fisheries on the marine environment (RCEP, 2004)***

The most comprehensive analysis of the application of SEA to fisheries has arguably come from the Royal Commission on Environmental Pollution (RCEP), which recommended that "the UK government and devolved administrations should apply strategic environmental assessment and environmental impact assessment to fishing, amending the legislation as necessary". This was included within the broader recommendation that "the UK government should develop a comprehensive system of marine spatial planning that: develops integrated regional management plans to guide all major uses of the seas, including fishing. These should ensure high standards of marine protection, and be subject to strategic environmental assessment." A possible institutional structure was proposed for implementing marine spatial planning and SEAs.

#### ***The Irish Sea Pilot (Vincent et al, 2004)***

*The Irish Sea Pilot* provides a thorough review of the marine environment legislative framework and the application of SEA to fisheries activities. It states that "fisheries decisions and activities should be brought within the scope of Strategic Environmental Assessment plans and programmes and also within the scope of plans and projects in relevant European

Union legislation”. The review included aquaculture, considering that “mariculture developments should be subject to Strategic Environmental Assessment and Environmental Impact Assessment as part of the wider spatial planning of inshore waters”. Three SEA-specific recommendations were made:

- R39 The application of the Strategic Environmental Assessment Directive to fisheries and marine transboundary issues should be clarified. The publication of detailed guidance designed for marine plans or programmes is required.
- R40 Agreement with the fishing industry should be sought on how fisheries activities should be defined in plan or programme terms and on the adoption of a policy to undertake Strategic Environmental Assessment of fisheries.
- R41 Monitoring of the implementation of plans or programmes should be made a duty in the Strategic Environmental Assessment regulations to assess the accuracy of environmental changes predicted by the Strategic Environmental Assessment process and to ensure that unexpected impacts have not occurred.

***Inquiry into the future of the Scottish fishing industry (RSE, 2004)***

While SEAs themselves were not discussed, the royal Society of Edinburgh (RSE) recommended that “the Scottish Executive should consider some form of Environmental Impact Assessment for new ventures by the fishing industry”. It was also further noted that “an ecosystem-based approach to fisheries management should, *inter alia*, make provision for the introduction of Environmental Impact Assessments (EIAs) in respect of all new fisheries”.

***Inshore fisheries regulation and management in Scotland: meeting the challenge of environmental integration (Symes and Ridgway 2003)***

While not strictly a call for the SEA process, Symes and Ridgway (2003) recommended that the guidelines for the establishment of Regulating Orders be revisited *inter alia* to build in requirements for environmental assessments and a statement of environmental objectives within management plans.

However, the introduction of SEAs and/or EIAs in all future proposals to develop new fisheries or introduce new fishing practices was noted as an important element of implementing environmental integration.

More recently, JNCC commissioned a report to investigate the application of SEAs to fisheries (Hartley Anderson, 2005) to inform discussion on how to take forward the PMSU SEA recommendations (e.g. Sustainable Fisheries Programme, 2004; Sustainable Fisheries Programme, 2005). However, not much has been provided in the form of policy guidance beyond these recommendations, so the intention of this report is to add a level of detail necessary for the operationalisation of the Directive in the fisheries sector, including its implications for stakeholders and managers, how SEA fits into the management system and what an SEA would entail in practice.

WWF-UK has thus commissioned the Institute for European Environmental Policy (IEEP) to develop this report with the following purposes:

1. To interpret the EU SEA Directive and UK transposing regulations in relation to how they apply to the management of EU and UK capture fisheries and how they compare to other assessment procedures, e.g. Sustainability Impact Assessment (SIA).

2. To review SEA good practice and consider how the UK could learn from this.
3. To consider how SEA may be applied to UK capture fisheries within a spatial planning context.

#### 1.4 REPORT STRUCTURE

Section 2 begins by reviewing the details of the SEA Directive, in terms of the SEA process and how it has been transposed into UK law. Section 3 continues by reviewing the types of fisheries plans and programmes to which the SEA Directive applies. Other procedural impact assessment tools are reviewed in section 4, to put the SEA process into context. Based on this background, the fisheries management systems at the EU and UK levels are reviewed in section 5, highlighting in more detail where SEA is and is not relevant. Section 6 presents case studies of the application of SEA to fisheries in other countries, which informs a discussion of the application of SEA good practice to fisheries management in the UK in section 7. Section 8 draws the report to a close with final conclusions.

## 2. The SEA Directive

Before reviewing the types of fisheries plans and programmes that the SEA Directive applies to, this section begins by reviewing the details of the SEA Directive, in terms of the SEA process and how it has been transposed into UK law. Such a legal starting point to the analysis is important because it underpins the discussion of what is legally required by Member States, including the UK, in applying SEA to the fisheries sector.

### 2.1 BACKGROUND

The view that a comprehensive system of environmental assessment in Europe should be established, going beyond the assessment of projects only, emerged from European Commission studies in the 1970s. The argument was that the project-based EIA process (discussed further in section 4.4) takes place too late in the planning process and consequently policies, plans and programmes that give rise to such projects should also be subject to an environmental assessment.

The first internal draft of a Commission proposal for an SEA Directive (which included policies) was produced in 1991, but it took 10 years before it was agreed. A proposal was formally published in 1996. However, it was restricted to plans and programmes, and this remained the case under the finally adopted Directive 2001/42/EC on the assessment of the effects of certain plans and programmes in the environment, hereafter the SEA Directive. This was adopted in 2001, with formal compliance by Member States required by July 2004.

The aim of the SEA Directive is to integrate environmental considerations in a more proactive and strategic way into the decision-making process. It requires authorities to undertake an environmental assessment of certain plans and programmes that are likely to give rise to significant effects on the environment. The Directive sets out standard procedures for undertaking an environmental assessment. It also complements other assessment procedures such as the EIA Directive 85/337 on the assessment of projects (see section 4.4).

The requirements of the SEA Directive are very similar to those of the UNECE (United Nations Economic Commission for Europe) Protocol on Strategic Environmental Assessment<sup>1</sup>. The UNECE has 55 member countries; it provides a forum for communication and brokers international legal instruments for trade, transport and the environment. The SEA Protocol was adopted in Kiev in 2003 and signed by 35 countries. While the Protocol was negotiated under the UNECE, it is open to all UN members. It has not yet come into legal force as it only has two of the 16 ratifications required (Finland and the Czech Republic). However, when ratified it will expand on the geographical area covered by SEA requirements and hence will further increase the importance of the SEA Directive. In addition, the UNECE's focus on transboundary issues and international conventions could serve as a forum to develop even further the links between SEA and fisheries.

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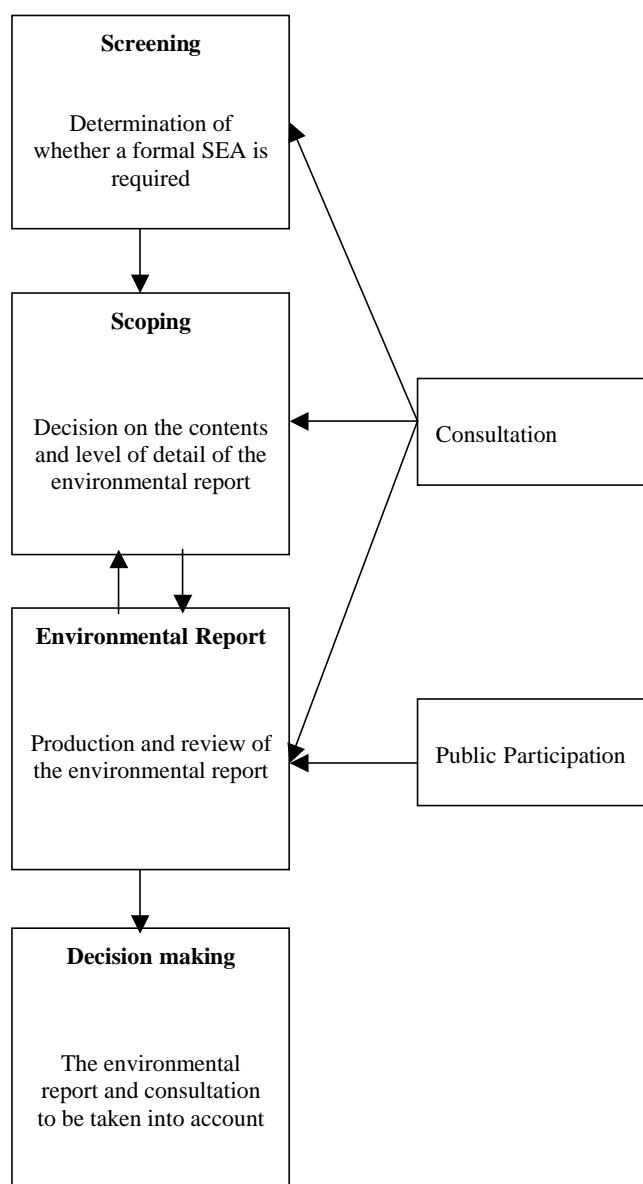
<sup>1</sup> This protocol supplements the Espoo Convention on Environmental Impact Assessment in a Transboundary Context.



## 2.2 REQUIREMENTS AND PROCEDURES

The SEA procedure required by the Directive has here been divided into four main stages (Figure 1). The terms to describe these stages, such as screening, are not used in the Directive itself but are commonly used in SEA terminology. It should be noted that the boundaries between the different stages are fluid and interact with each other. This is especially true for the scoping stage and the preparation of the environmental report stage.

Figure 1 SEA procedural steps



### 2.2.1 Screening

The first stage of the SEA procedure is screening. The screening process determines whether an SEA is required or not. This is probably the most complicated stage. It is also possibly the most controversial as it may lead to legal challenges over what is actually covered.

The procedures used for the preparation and adoption of plans and programmes determine whether they are covered by the Directive. These procedures are discussed here and summarised in Appendix 1. The SEA Directive requires an environmental assessment for certain plans and programmes prepared or adopted by national, regional or local authorities (rather than, say, EU institutions), where these are “required by legislative, regulatory or administrative provisions”. This means that plans and programmes prepared by private companies or voluntary bodies would not require an SEA.

Furthermore, the Directive lists types of plans and programmes that will always require an SEA, might require an SEA, or are exempt from an SEA. These are shown in Box 1 and are discussed in more detail in section 3 in relation to the fisheries sector.

### **Box 1 Plans and programmes covered by the Directive**

Drawing directly from the SEA Directive:

1. An SEA is required for:

- plans and programmes which are prepared for agriculture, forestry, **fisheries**, energy, industry, transport, waste management, water management, telecommunications, tourism, town and country planning or land use **and** which set the framework for future development consent of projects listed in Annex I and II of the EIA Directive (Article 3(2a));
- plans and programmes, which have been determined to require an assessment according to the Habitats Directive 92/43/EEC (Article 3(2b)); and

2. An SEA might be required for:

- plans and programmes of Article 3(2) covering small areas at local level or minor modifications but are still likely to have significant environmental effects; and
- other plans and programmes than those of Article 3(2), which set the framework for future development consent of projects, and are likely to have significant environmental effects.

3. Plans and programmes exempt from an SEA:

- national defence or civil emergency plans and programmes; and
- financial or budget plans and programmes.

Many of the definitions shown in Box 1 have been left open in the Directive. The definition in the Directive of what constitutes a minor modification or a small area at local level is not defined and will most likely be defined through case law. However, a plan or programme that Member States determine as likely to have significant environmental effects should undergo environmental assessment even if it determines only the use of a small area at local level.

The criteria to determine significant environmental effects are set out in Annex II of the Directive (see Appendix 2). These cover a list of characteristics of the plan and programme, of the effects and of the area likely to be affected. Member States can carry out this determination, either through case-by-case examination or by specifying types of plans and programmes or by combining both approaches.

A case-by-case examination would require each individual plan or programme to be examined to see whether it is likely to have significant effects on the environment. By

“specifying types of plans and programmes”, the Directive envisages that plans and programmes of the same kind will be the subject of a general determination that they are likely to have significant environmental effects. According to the European Commission SEA Guidance document (CEC 2003), it is clear that the power to specify types of plans and programmes is not intended as a broad power to exempt whole classes of plans and programmes unless all those plans and programmes could, when viewed as a whole, be regarded as not likely to have significant effects on the environment. The same SEA Guidance document points out that the general approach for a combination of both approaches would be to define a class of plans or programmes that would not, in specified circumstances, be likely to have significant environmental effects, and to provide that in other circumstances the determination would have to be made case by case.

To determine whether an SEA is required for those plans and programmes that might require an SEA, the statutory consultees need to be consulted. The consultees for the UK are listed in section 2.3.1.

Finally, there is no definition of plans and programmes in the Directive. This means that plans and programmes cannot be clearly distinguished from policies, which are excluded from the scope of the Directive. Consequently, Member States could avoid the obligations of the Directive by arguing that their plans and programmes were in fact policies, and therefore exempt.

#### 2.2.2 Scoping

After the screening process has determined that an SEA is required the next step is the scoping stage. This is the procedure where the contents and the level of detail of the SEA are determined. The Directive lists the information to be included in the environmental report and the scope and level of detail that ought to be evaluated within the boundaries of this information. The level of detail should relate to the 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 order to avoid duplication of assessment.

The environmental report (section 2.2.3) contains the findings of the SEA and is required to be submitted together with the proposed plan or programme. The consultation bodies must be consulted when deciding on the scope and level of detail of the environmental report. The SEA Directive does not specifically require the preparation of a scoping report providing the level and the detail of the information to be used, but this is considered sensible as it would form the basis of the required environmental report. It would also make it easier for the consultees to provide advice.

#### 2.2.3 Preparation of the environmental report

The Directive contains a comprehensive list of information to be included in the environmental report and this is listed in Appendix 3. This section provides an overview of what are considered the most relevant parts.

##### **Baseline data**

The baseline data describes the current state of the environment and the likely evolution thereof without implementing the plan or programme. As such, it provides an ‘in the event of no action’ scenario.

The SEA Directive does not provide advice on the amount of baseline data required. Therivel (2004) suggest that the baseline data required ought to allow environmental problems to be identified and addressed, to provide a baseline against which future monitoring can be carried out, and a basis for impact prediction. Any data that do not do this are superfluous, and enough data are needed to achieve this.

**The impact on what?**

The issues to be considered when evaluating the “significant effects on the environment” of the plan or programme are almost all environmental or social, as can be seen in Box 2. The onus of the SEA Directive is thus strongly environmental and does not require the evaluation of other issues apart from those listed in Box 2. Consequently, it is not necessary to assess the impact of the plan or programme on the economy as a whole (cost benefit analysis, etc), or on other social issues such as employment. This does not mean that these have to be omitted from the SEA process required by the Directive, but rather it is not a statutory requirement. Accordingly, the SEA process is primarily an environmental assessment, not a sustainability assessment.

<b>Box 2 Issues to be covered by the SEA</b>	
Environmental	Social
<ul style="list-style-type: none"> <li>• Biodiversity</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>• Landscape</li> </ul>	<ul style="list-style-type: none"> <li>• Population</li> <li>• Human health</li> <li>• Cultural heritage</li> </ul>

**Type of effects to be covered**

The Directive covers a wide range of effects and requires knowledge about the interaction with other plans and programmes in the area as well. These types of effects are shown in Box 3.

<b>Box 3 Effects covered by the Directive</b>
<ul style="list-style-type: none"> <li>• Secondary, cumulative and synergistic</li> <li>• Short, medium and long term</li> <li>• Permanent and temporary</li> <li>• Positive and negative</li> </ul>

**Consideration of alternatives**

The environmental report needs to include a description of “reasonable” alternatives, taking into account the objectives and the geographical scope of the plan or programme, including an outline of the *reasons* for selecting the alternatives dealt with. In addition, after a decision has been made, a statement explaining why the plan or programme was chosen in the light of

other alternatives needs to be made available to the public and the consultation bodies by those responsible for the preparation of the plan or programme.

### **Mitigation**

Identifying mitigation measures is a key requirement of the Directive. The report has to cover measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment caused by the plan or programme. Where the SEA procedure will be included within a wider sustainability impact assessment (including also economic and social impacts) much care must be taken not to let possible trade offs of economic, social and environmental impacts distract attention from the mitigation requirements.

### **Monitoring**

The environmental report is required to include a description of how to monitor the significant environmental effects of the implementation of plans and programmes throughout their life. The aim is to identify unforeseen adverse effects at an early stage and to be able to undertake appropriate remedial action. Unforeseen adverse impacts are interpreted in the Commission's guidance document as "changes in circumstances, which have invalidated the assumptions made in the environmental report".

#### 2.2.4 Decision-making

The SEA Directive requires the environmental report, the opinions expressed, and the results of consultations to be taken into account by decision-makers (i.e. those responsible for the plan or programme) before the plan or programme is adopted or submitted to the legislative procedure.

When a plan or programme is adopted, the parties consulted and the public are to be informed of the following:

- the plan or programme as adopted;
- a statement summarising how environmental considerations have been integrated into the plan or programme;
- a statement summarising how the environmental report has been taken into consideration;
- a statement summarising how the expressed opinions and results of consultations have been taken into account; and
- the reasons for choosing the plan or programme as adopted in the light of other reasonable alternatives.

The process of the SEA Directive does not guarantee any specific decisions, even if it ought to make the decision-making process more informed by integrating environmental considerations into it. Consequently, SEAs are more about change of process, culture and attitudes than immediate outcomes. This is especially true when the SEA process is relatively unfamiliar to those conducting the assessment.

#### 2.2.5 Consultation and public participation

Consultation and public participation are other key features of the SEA process and are present in the screening, scoping and environmental report stages. The consultation bodies are to be consulted, during the screening stage, on the scope and detail of the information in the environmental report and on the draft plan or programme and its accompanying

environmental report. Obviously the consultation can include a broader remit than only including the consultation bodies.

The draft plan or programme shall also be made available to the public, who will be given an early and effective opportunity within appropriate time frames to express their opinion. The public are defined as those affected or likely to be affected or just having an interest in the decision subject to the Directive. This consequently covers non-governmental organisations and the private sector.

Where a Member State considers that the implementation of a plan or programme is likely to have significant effects on the environment in another Member State (or where a Member State likely to be significantly affected so requests), the Member State where the plan or programme is being prepared is required to forward a copy of the draft plan or programme and the environmental report to the other Member State. The other Member State can then indicate whether it wishes to enter into consultations before the adoption of the plan or programme. Where such consultation takes place, the Member States concerned shall agree on detailed arrangements to ensure that the consultation bodies and the public in the other Member State are informed and given an opportunity to express their opinion.

## 2.3 UK REGULATIONS AND PROCEDURES

The UK has implemented the Directive by means of the Environmental Assessment of Plans and Programmes Regulations 2004 (SI 2004, No. 1633 for England; SI 2004 No 258 for Scotland; SR 2004 No. 280 for Northern Ireland and SI 2004 No. 1656 (W.170) for Wales)<sup>2</sup>.

The Directive has been transposed into UK law following very closely the wording of the Directive. Therefore the requirements of the SEA Directive discussed above hold true for the UK regulations. The issues, which are left to be decided by the Member States, are discussed here.

### 2.3.1 Consultation bodies

The consultation bodies designated by the UK are listed below.

For England:

- the Countryside Agency;
- English Heritage;
- English Nature; and
- the Environment Agency.

For Northern Ireland:

- the Department of the Environment for Northern Ireland.

For Scotland:

- the Scottish Ministers;
- the Scottish Environment Protection Agency; and
- Scottish Natural Heritage.

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<sup>2</sup> It should be noted that the SEA Directive does not apply to the Channel Islands.

For Wales:

- the Countryside Council for Wales;
- the Environment Agency; and
- Cadw (Welsh Historic Monuments).

#### 2.3.2 Time frames and costs

The UK Regulations set a time limit of five weeks for the consultation bodies to comment on the scope and level of detail of the information in the environmental report. Subsequently, the time period for expressing their opinion on the draft plan or programme and its accompanying environmental report is not set but needs to be of such length that the consultees are given “an effective opportunity to express their opinion”. In cases of transboundary environmental effects, the time period for consultation with the consultation bodies is specified by the Secretary of State. However, it cannot end later than 28 days from the end of the overall consultation period agreed between the Secretary of State and the Member State concerned.

The SEA Directive does not address the level of resources that should be allocated to undertake SEAs or how these costs should be covered, and by whom. Given that SEAs are undertaken by national, regional and local authorities, in the UK the costs of undertaking SEAs are covered using public funds. Note though that the costs required upfront by SEA can save time and the future costs of the consequences of poor decisions. Furthermore, a good quality SEA process can save money in the long term by preventing delays and legal challenges to decisions.

#### 2.3.3 Broader SEA application in Scotland

A notable development for future SEAs is the recent Environmental Assessment (Scotland) Bill<sup>3</sup>. This Bill expands the scope of plans and programmes to be covered by the current Regulations. As mentioned in section 2.2.1, the Directive covers only those plans and programmes that are required by legislative, regulatory or administrative provisions. This has meant that government plans and programmes, which are perceived as being voluntary, have not been covered by the Regulation, even if they would have significant environmental impacts. The Bill removes this restriction, stating that any reference to plans and programmes would also include strategies. Therefore the Bill will require an SEA of government strategies in Scotland, such as airport strategies, which have not been covered by the current Regulation. The earliest the Bill would be passed is spring 2006.

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<sup>3</sup> Environmental Assessment (Scotland) Bill (SP Bill 38) 2. March 2005

## 3. The SEA Directive and fisheries

The screening stage determines what is and is not subject to an SEA (see section 2.2.1). Plans and programmes can be divided into those that always require an SEA and those that might require an SEA. From this, one can establish what does not legally require an SEA, although this is not to say that an SEA cannot be applied if legislators or plan and programme developers consider this desirable.

A more detailed description of how the SEA Directive assessment procedure could be implemented within a UK fisheries context is discussed in section 7.

### 3.1 FISHERIES PLANS AND PROGRAMMES THAT ALWAYS REQUIRE AN SEA

As noted in Box 1, the SEA Directive requires an SEA for plans and programmes prepared for the fisheries sector under certain conditions. The SEA Directive further refers to the EIA and Habitats Directives (92/43) in determining what other areas require an SEA.

#### 3.1.1 EIA Directive and future development consent

An SEA is compulsory (with some exemptions, see section 3.2) for fisheries plans and programmes that “set the framework for future development consent” of projects listed in Annex I and II of the EIA Directive<sup>4</sup>. Therefore it is necessary to evaluate which of the projects listed in Annex I and II of the EIA Directive are relevant to the fisheries sector. This should also include projects that may indirectly impact on fisheries, even if not linked to fisheries plans or programmes.

#### **Fisheries-relevant EIA Directive Annex I (EIA always required) projects**

##### **Direct link**

- Trading ports, piers for loading and unloading connected to land and outside ports (excluding ferry piers) that can take vessels of over 1,350 tonnes.

##### **Indirect link**

- Inland waterways and ports for inland waterway traffic that permit the passage of vessels of over 1,350 tonnes.
- Works for the transfer of water resources between river basins based on specific criteria (water transfer, water flow, etc).
- Waste water treatment plants with a capacity exceeding a specific limit.
- Dams and other installations designed for the holding back or permanent storage of water (exceeding 10 million cubic meters).
- Extraction of petroleum and natural gas.

#### **Fisheries-relevant EIA Directive Annex II (EIA might be required) projects**

##### **Direct link**

- Intensive fish farming.
- Fish-meal and fish-oil factories.
- Construction of port installations, including fishing harbours (projects not included in Annex I).

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<sup>4</sup> Note that it is not necessary to decide whether the Annex II projects would require an EIA for it to trigger an SEA.



#### **Indirect link**

- Water management projects for agriculture, including irrigation and land drainage projects.
- Dams and other installations designed to hold water or store it (projects not included in Annex I).
- Works for the transfer of water resources between river basins not included in Annex I.
- Waste water treatment plants (projects not included in Annex I).

It is only necessary for a plan or programme to set the framework for future development consent of one of the EIA Directive Annex I or II-listed projects for an SEA to be triggered. This is even the case if the relevant project were only one among a number of other projects that are not similarly listed. The screening stage would be a straightforward process of recognising that an SEA is required, with the scoping stage determining what elements of the plan are assessed in consultation with the relevant consultation bodies. For example, any plan that covered aquaculture and capture fisheries would trigger an SEA, even though fishing activities are not listed under Annex I or II of the EIA Directive. In the scoping stage it would be decided whether to include fishing activities in the SEA itself.

#### **3.1.2 Habitats Directive**

Other fisheries plans and programmes that would always require an SEA are those that have been determined as requiring an assessment according to the Habitats Directive (Box 1). Hence, if a plan or programme has been found to have significant environmental effects under Article 6(3) of the Habitats Directive on a site or sites designated as a special area of conservation (SAC) or a Special Protection Area (SPA), the application of the SEA Directive is triggered.

In looking to the Habitats Directive for a definition of “plans or programmes”, none was found to exist. In attempting to provide some clarification on the definition of “plan” under the Habitats Directive, the European Commission’s (non-legally binding) guidance document on interpretation of Article 6 of the Habitats Directive (CEC, 2000) states that “The word ‘plan’ has a potentially very broad meaning” and points back to the SEA Directive for a definition, stating that it “may be of assistance in considering the term ‘plan’” and that “in that context, the terms ‘plans’ and ‘programmes’ can be used alternatively”.

However, in looking back to the SEA Directive, no definition for “plans or programmes” is provided when it refers to the Habitats Directive. This creates a feedback loop that provides no definition for plans or programmes in these specific cases.

The definition may ultimately be settled through a European Court of Justice (ECJ) ruling. While not a full definition, it should be noted that the ECJ ruled that annually renewed fishing licences fall within the concept of “plan or project” (Case C-127/02). The implications of this are that annually issued fishing licences could trigger appropriate assessments. Whether they subsequently trigger an SEA could depend on where on the project-plan spectrum fishing licences lie. That is, if fishing licences were projects rather than plans, then an SEA would not be triggered.

There is no definition of “project” under the Habitats Directive, but the European Commission’s (non-legally binding) guidance document on interpretation of Article 6 of the

Habitats Directive points to the EIA Directive for a definition (CEC, 2000). The EIA Directive defines a project as:

- the execution of construction works or of other installations or schemes; or
- other interventions in the natural surroundings and landscape including those involving the extraction of mineral resources.

While fishing activities would arguably qualify as projects under this definition – as interventions in the natural surroundings – it is not clear how they differ from (undefined) plans.

Where fishing licences lie on the project-plan spectrum (and hence whether they demand an SEA) may again be something the ECJ will be called upon to provide legal clarity.

The technical and procedural relationship between the “appropriate assessment” required by the Habitats Directive and the assessment according to the SEA Directive is discussed in more detail in section 4.5.

### 3.2 FISHERIES PLANS AND PROGRAMMES THAT MAY REQUIRE AN SEA

While the SEA Directive specifies where an SEA is compulsory, it also identifies circumstances under which an SEA *may* be required but is not necessarily compulsory. Where those plans and programmes identified in 0 only cover small areas at local level or minor modifications, they only require an SEA if Member States determine that they are likely to have *significant environmental effects*, as detailed in Box 1. The significance of the environmental effects is assessed using criteria in the SEA Directive (Appendix 3).

The other criteria for fisheries plans and programmes that might require an SEA are those that *set the framework for future development consent of projects that are likely to have significant environmental effects*. The plans and programmes to which it applies are all those that set the framework for future development consent of projects but are not covered by Article 3(2). There is, therefore, no requirement for the projects to be limited to those listed in Annex I or Annex II of the EIA Directive.

Although not legally binding, according to the European Commission SEA Guidance document the definition of “project” in the EIA Directive would apply. As noted in 0, fishing activities would arguably qualify as projects under the EIA Directive definition as “interventions in the natural surroundings”.

“Development consent” in the EIA Directive is defined as “the decision of the competent authority or authorities which entitles the developer to proceed with the project”. There is no definition in the Directive of “set the framework for”. The SEA Guidance document interprets it normally to mean that the plan or programme contains criteria or conditions that guide the way the consenting authority decides an application for development consent.

Such decision-making criteria could place limits on the type of activity or development that is to be permitted in a given area; or they could contain conditions that must be met by the applicant if permission is to be granted; or they could be designed to preserve certain

characteristics of the area concerned. Examples could include the amount of quota that may be taken in a specified area or the type of gear permitted or prohibited.

Given that fishing activities arguably qualify as projects under the SEA Directive, any plans and programmes that set the framework for permitting or restricting fishing would need to be screened to assess whether the activities have a significant impact on the environment. The application of SEA to such plans and programmes are discussed in section 7. The screening requirements were explained in greater detail in section 2.2.1.

### 3.3 FISHERIES PLANS AND PROGRAMMES THAT DO NOT REQUIRE AN SEA

By the nature of legislation, the SEA Directive and its transposing regulations are more explicit in what they cover than what they do not. While section 5 considers in more detail what type of fisheries plans and programmes set the framework for future development consent of projects, and so may require an SEA, several areas that are not covered can be flagged at this stage.

#### 3.3.1 Above the national level

The SEA Directive requires an environmental assessment for certain plans and programmes prepared or adopted by national, local or regional (i.e. between national and local) authorities. An SEA is, therefore, not required for plans and programmes developed by EU or international institutions. This would exclude, for example, the European Commission, Regional Advisory Councils (RACs), or Regional Fisheries Management Organisations (RFMOs) such as the North East Atlantic Fisheries Commission (NEAFC).

Indeed, it should be stressed that it would not be entirely appropriate to attempt to simply extend the SEA Directive requirements to these levels, as the institutional arrangements outlined in section 2.2 are context specific and central to the SEA process. Being a Directive, it only applies to Member States; the processes are nationally focused and the transposition of the Directive varies by Member State. Other assessment procedures for Commission proposals also exist for the development of European legislation (section 4). However, RACs and RFMOs could undertake more generic SEAs on their plans or programmes, drawing on the SEA Directive processes and international lessons. This is explored in section 7.3.

#### 3.3.2 Private and voluntary sector plans or programmes

As an environmental assessment is required only for those specific plans and programmes prepared or adopted by national, regional or local authorities, any such plans or programmes developed by the private sector or charities would not require an SEA. A fishing or aquaculture company would not in this case have to undertake an SEA on a business plan, in the same way an NGO would not have to undertake an SEA on a campaign programme.

#### 3.3.3 Individual fishing vessels and new fisheries

There is increasing recognition of the need for a paradigm shift in reversing the burden of proof in the fisheries sector. That is, permitting fishing only where it is clear that serious environmental damage is unlikely, rather than only restricting fishing where there is evidence of serious environmental damage, which is not typically available until after the event. In this sense, some of the calls for assessments of various types, including SEA (some highlighted in section 1.3), have included assessing the impacts of individual fishing vessels and 'new' fisheries.

However, the relevance of these suggestions to SEA is mixed. It should be reiterated that under the SEA Directive, an SEA is required for fisheries plans and programmes that “set the framework for future development consent” of projects. Individual vessels or expanding fisheries would thus not fall under this heading, as they are more akin to projects. For an SEA to be required, they would have to be likely to have significant environmental effects (and so qualifying for the “might require an SEA” criteria, section 3.2) *and* be operating under a wider national, regional or local marine or fisheries plan or programme that sets the framework for their operation. This is something advocated by the RCEP (see 1.3) and is discussed further in section 7.

### 3.4 EMBRACING THE SEA PROCESS

While there are criteria within the SEA Directive on what types of (fisheries) plans and programmes would always require and may require an SEA, as it is a Directive, Member States need not be constrained by the requirements. That is, they represent the minimum level of SEA application required. The texts of the Directives and the national transposing regulations are important in defining the types of plans and programmes to which Member States are legally required to apply SEA. However, national, regional and local authorities should not be preoccupied with whether a fishing activity is a project with significant environmental effects or whether certain plans and programmes fit the legal requirements for an SEA to be triggered. Indeed, the point at which SEA becomes resisted or grudgingly accepted by its implementers, it begins to lose its value as a tool for improving decision-making.

In many cases, the SEA steps are undertaken by plan and programme developers, such as stakeholder participation. But the formal SEA process is important in institutionalising all the important elements of decision-making that underpin fisheries management, such as collecting environmental data, public participation and transparency. To illustrate how the SEA process could be applied to fisheries plans or programmes in practice, both within and beyond the requirements of the SEA Directive, the different forms of fisheries plans and programmes are discussed in section 5 and SEA application explored in section 7.

## 4. Other procedural impact assessment tools

To put the SEA process into context, other procedural impact assessment tools are reviewed in this section. Different assessment tools exist at different levels of policy and decision-making, and it is important to understand how SEA fits in relation to these other processes. In doing so, it becomes apparent that the definitions of the various assessments are not always crystal clear, with assessment tools often overlapping.

### 4.1 REGULATORY IMPACT ASSESSMENT

Regulatory Impact Assessments (RIAs) are employed to assess the effects of proposed regulations, normally on a national level. Traditionally, their main focus has been on economic impacts, but with the sustainable development agenda gaining ground they have started to cover social and environmental aspects as well. Examples of the application of RIA in the UK fisheries sector include an assessment of the Statutory Instrument prohibiting pair trawling for bass in the inshore waters of south-west England (Defra, 2004) and the PMSU report recommendations (PMSU 2004b).

UK RIA guidance has been extended to include a range of environmental impacts so, in April 2004, the government announced that RIAs should constitute the formal means for assessing environmental impacts. However, a report by the Environmental Audit Committee (EAC) (House of Commons, 2005) points out that the RIA guidance by the Cabinet Office is written throughout from the point of view of minimising regulation, rather than being a mechanism for identifying and reducing environmental impacts. The National Audit Office is currently reviewing how far RIAs have incorporated environmental impacts. Its report for the EAC is expected in spring 2006.

### 4.2 SUSTAINABILITY IMPACT ASSESSMENT AND SUSTAINABILITY APPRAISAL

Sustainability Impact Assessment (SIA) is a generic term that covers assessment processes of economic, social and environmental impacts. Compared to SEAs, SIAs deal with all dimensions of sustainable development, not only the environment. Historically, SIAs have been conducted on policies and higher decision-making tiers than SEAs, but this is no longer necessarily the case and any tool covering the economic, social and environmental impacts could be deemed a type of Sustainability Impact Assessment.

Sustainability appraisal is a type of SIA used in the UK by local and regional authorities. Sustainability appraisals have evolved from environmental appraisals, assessing in most cases only the impacts on the environment, to a tool covering social and economic impacts as well. In the UK, many of the sectoral requirements of the SEA Directive are implemented through sustainability appraisals.

#### 4.3 IMPACT ASSESSMENT

Impact Assessment<sup>5</sup> is the methodology developed by the European Commission to assess the economic, social and environmental impact of Commission proposals. As such it can be seen as a form of extended Regulatory Impact Assessment. The Commission has established a system (COM(2002)276) to conduct an impact assessment on all its major proposals (regulatory or otherwise) having an economic, social or environmental impact. Originally, the procedure involved a two-stage process to assess social, economic and environmental impacts, with a first filtering stage leading to a decision on whether to undertake an Extended Impact Assessment (ExIA). From 2005, all Commission proposals appearing in the Annual Work Programme require the equivalent of an Impact Assessment, but proportionate to the significance of the likely impacts.

In 2003, the first detailed Impact Assessments for policy being developed by the Commission were completed, although their quality was mixed (Wilkinson *et al*, 2004). Application in the fisheries sector include proposals for cetacean bycatch measures (COM(2003)451); a recovery plan for western channel and Bay of Biscay sole stocks (SEC(2003)1481); and a recovery plan for southern hake and the Norway lobster stocks in the Cantabrian Sea and western Iberian waters (SEC(2003)1481).

In theory, the Impact Assessment process involves the identification of different policy options, and consultation on their impacts and the best way forward. This typically entails consulting stakeholders either through the various committees (see below) or in other ad hoc meetings. In practice, Impact Assessments have so far been undertaken when the Commission's preferred option has already been chosen. However, they do still allow in principle a formal dialogue for stakeholders with the Commission.

The Commission's Secretariat-General has recently issued revised guidelines on Impact Assessments, replacing those published in 2002 when the new Impact Assessment system was launched (SEC(2005)791). While the guidelines are clearer and more comprehensive, they nevertheless give Commission officials a wide margin of discretion in using them. In practice, each Directorate General has considerable freedom to choose how to organise its Impact Assessment work, and there is no institutionalised system of quality control.

#### 4.4 ENVIRONMENTAL IMPACT ASSESSMENT

Environmental Impact Assessments are undertaken under the Environmental Impact Assessment (EIA) Directive to assess the impact that *projects* might have on the environment. The projects listed in Annex I of the Directive must be made subject to an assessment, while other projects, listed in Annex II of the Directive, are to be made subject to an assessment only if they are likely to have a significant effect on the environment. This is the main difference between the SEA Directive (which deals only with plans and programmes) and the EIA Directive.

Many of the procedural requirements are shared between the EIA and SEA Directives. They have many of the stages in common, such as screening, scoping (even if not mandatory in the EIA Directive), preparation of an environmental statement and public consultation. However,

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<sup>5</sup> Note that to avoid confusion we do not use the abbreviation IA for Impact Assessments, as traditionally IA has been the abbreviation used for Integrated Assessments.

the requirements within these stages can vary between the EIA and SEA Directives. For instance, the SEA Directive requires the environmental report to be of sufficient quality, whereas the EIA Directive does not contain any specific quality requirements.

There is also a functional link between the Directives, as mentioned in the screening section (2.2.1). The SEA Directive requires that an environmental assessment shall be carried out for all plans and programmes, which are prepared for certain sectors “and which set the framework for future development consent of projects listed in Annexes I and II” of the EIA Directive. Therefore, when thinking of the implications of the SEA Directive for the fisheries sector, one needs to assess which of the EIA Annex I and II projects are relevant for fisheries. However, not all plans and programmes need to be linked to the Annexes of the EIA Directive to require an SEA. Article 3(4) broadens the scope of the SEA Directive, including projects in sectors other than those listed in 3(2), as well as projects that are not listed in the annexes of the EIA Directive. However, unlike Article 3(2), it does not automatically deem certain plans and programmes to have significant environmental effects, but leaves this to be determined either through a case-by-case examination or by specifying types of plans and programmes or by combining both approaches (section 2.2.1).

The possible overlap between the EIA and the SEA Directives is discussed in the SEA Directive. In these cases, Article 11(1) states that other Community law requirements, such as those of the EIA Directive, relating to an environmental assessment of plans and programmes apply cumulatively with the SEA Directive. These could be cases where plans and programmes provide for several projects to which the EIA Directive applies. Article 11(2) deals with the avoidance of a duplication of assessment in situations where the plan or programme comprises the development consent for a project. In these cases the Directive suggests a coordinated approach covering the aspects of both the EIA and the SEA Directives.

#### 4.5 APPROPRIATE ASSESSMENT

An “appropriate assessment” is required by the Habitats Directive when any plan or project not directly connected with or necessary to the management of the site is likely to have a significant effect thereon. The appropriate assessment for the site is to be conducted based on the site’s conservation objectives. The competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.

As mentioned in sections 2.2.1 and 3.1.2, when a plan has been found to have significant effects pursuant to the Habitats Directive it triggers the application of the SEA Directive.<sup>6</sup> This would lead to a situation where both an “appropriate assessment” and an SEA are required. However, as with the relationship between the EIA and the SEA Directive, a combined assessment procedure is possible to avoid duplication, provided it fulfils both the requirements of the SEA Directive and the Habitats Directive. The assessment under the SEA Directive is much broader than that of the “appropriate assessment” of the Habitats Directive. Consequently, the more specific requirements regarding the site’s conservation objectives of the “appropriate assessment” should be integrated within the SEA procedure.

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<sup>6</sup> Note this does not apply to *projects*, as the SEA Directive applies to plans and programmes rather than projects directly.

#### 4.6 INTEGRATED ENVIRONMENTAL ASSESSMENT

Integrated Environmental Assessment (IEA) is an approach that brings together different assessment tools to allow a more holistic assessment of environmental issues. At the time of writing, it is not a legislative requirement at either the EU or national level, but is a concept under discussion and receiving increasing attention internationally. Several definitions exist, among which is that used by the European Environment Agency:

“The interdisciplinary process of identification, analysis and appraisal of all relevant natural and human processes and their interactions which determine both the current and future state of environmental quality, and resources, on appropriate spatial and temporal scales, thus facilitating the framing and implementation of policies and strategies.” (NERI, 1995, from EEA website, EEA)

This definition can seem a bit hard to grasp, but essentially the IEA can be seen as a holistic approach to assessing the impacts on the environment. It attempts to cover all the decision-making tiers and can be adapted to different sectors. Integrated Assessments (IAs) are similar to IEAs but also cover economic and social impacts.



## 5. Fisheries plans and programmes: an overview of fisheries management systems

Following detailed discussion of the SEA Directive in section 2, section 3 explored the fisheries plans and programmes to which SEA should be applied. These included national strategic plans and national strategic programmes developed under the forthcoming 2007-2013 EFF and fisheries plans, and programmes that “set the framework for future development consent” of projects listed in Annex I and II of the EIA Directive. SEA might be required in cases where plans or programmes that set the framework for future development consent cover only small areas at local level or minor modifications, but are still likely to have significant environmental effects.

The application of SEA to the fisheries sector will, as with any sector, depend on where in the management and decision-making system the SEA procedures ‘plug in’. That is, where, when, how and by whom are the relevant plans and programmes developed. It is necessary, therefore, to review the different levels and types of fisheries management/decision-making procedures and how they relate to SEA and the different assessment procedures outlined in section 4. Because of the significance of the EU Common Fisheries Policy (CFP), this report reviews the CFP before considering fisheries management in the UK more specifically.

### 5.1 THE COMMON FISHERIES POLICY

Fisheries policy is to a large extent an exclusive competence of the EU. This means that all decisions are taken at the level of the Union. Member States cannot intervene in fisheries management unless they are explicitly delegated the powers to do so. At present the main area for which Member States have been given such powers relates to inshore fisheries (within a maximum of 12 nm from the shore), which is discussed further in section 5.2. EU waters beyond these coastal waters are regarded as “one big pond”. The CFP provides *the* framework for European and national fisheries management activities. Therefore, a brief discussion of the CFP and the forms of EU legislation is important in understanding where SEA and other types of assessment discussed in section 4 fit in.

The CFP framework Regulation (2371/2002) sets out the basic objectives and instruments that can be deployed for fisheries management. However, the CFP as a whole consists of a collection of 300-400 laws. They cover four major areas:

1. conservation covering the management of stocks and fleets as well as environmental and health issues;
2. structural policy covering the fisheries funding programme (currently the FIFG (Financial Instrument for Fisheries Guidance), and due to change to a new programme in 2007: the EFF (European Fisheries Fund));
3. markets; and
4. external policy covering the multilateral and bilateral fishing agreements.

#### 5.1.1 Types of EU legislation

The CFP is subsequently implemented largely through Community “legislation”. The different types are:

- Regulations;
- Directives;
- Decisions;
- Recommendations; and
- Opinions.

### **Regulations**

Regulations are the most common type of legislation used in fisheries management (e.g. see Box 4). A Regulation is a law directly applicable in the Member States. It does not need to be incorporated into the laws of each EU Member State. It is mostly used for precise regulatory purposes.

#### **Box 4 EU recovery and management plans**

The CFP framework Regulation (2371/2002) provides for the elaboration of multi-annual management or recovery plans at the level of fisheries. There are two plans currently in place in the form of Council Regulations (the cod and northern hake recovery plans). Although “plans” in title, they are established at the EU level through Council Regulations, and not at the national level. Therefore they are not subject to the SEA process, which is undertaken at the national level (section 2.2.1). Instead, they are subject to a Commission impact assessment when in the proposal stage (section 4.3).

However, this is not to say that such plans could not be developed by RACs, which could apply some form of SEA, especially given that the impact assessments applied to recovery plans to date have been of questionable quality (Wilkinson *et al*, 2004). This is explored further in section 7.3.1.

### **Directives**

A Directive is binding on Member States as to the *results* to be achieved, but leaves the choice of form and methods of achieving these results to the Member States. It is therefore used for more general purposes, particularly where some flexibility is needed to take account of national systems and procedures. For this reason it is the instrument most commonly used for environmental matters, with the SEA Directive being an example.

### **Decisions**

A Decision is completely binding upon those to whom it is addressed, e.g. an individual or group of Member States. It has been used in the fisheries and environmental field in connection with international conventions and with certain procedural matters. Specific examples include the establishment of RACs and the joining of RFMOs.

#### 5.1.2 European Fisheries Fund

Programming and management of aid to the fisheries sector is undertaken on the basis of multi-annual programmes established by the Member States’ authorities and approved by the European Commission. Fisheries funding during the programming period, 2000-2006, has been under the fisheries structural fund, the Financial Instrument for Fisheries Guidance (FIFG). The FIFG is to be replaced by the new European Fisheries Fund (EFF) for the 2007-2013 programming period. While the proposal establishing the EFF Regulation (COM(2004)497) is still being debated within the Council, it is likely that a requirement for Member States to develop national strategic plans and national operational programmes will be features of the final Regulation.

Although the specific details of the national strategic plans and national operational programmes are yet to be finalised, the way in which they relate to each other is not expected to significantly change from that proposed. As the name suggests, the national fisheries sector strategic plan is a strategic document, setting out the priorities, objectives, estimated resources required and implementation deadlines for management of the fisheries sector. The national operational programme more specifically sets out how those activities to be co-funded by the EFF are to be implemented. The two should thus be coherent, with the national operational programme requiring approval by the Commission.

Based on the SEA Directive screening criteria, set out in section 2.2.1 and further discussed in relation to the fisheries sector in section 3, the national strategic plans and national operational programmes developed under the forthcoming 2007-2013 EFF are very likely to require an SEA. As noted in section 3.1.1, it is only necessary for a plan or programme to set the framework for future development consent of one of the EIA Directive Annex I or II-listed projects for an SEA to be triggered. As aquaculture, fishing harbours or fish-meal and fish-oil factories are almost certain to be included in these plans or programmes, an SEA will be automatically triggered. Even if they were not included, it would have to be demonstrated that the projects being catered for would not have a significant environmental effect during the screening stage for an SEA not to be continued with. Furthermore, it is unlikely that the exemption of the current Structural Funds (2000-2006) from the requirements of the SEA Directive would have been included in the SEA Directive (Article 3(9)) if this were not the case. The application of SEA to the national strategic plans and national operational programmes is explored in more detail in section 7.1.1.

#### 5.1.3 Member State powers

The CFP basic Regulation delegates back to the Member States a number of specific management powers.

##### **Emergency measures**

Member States may take emergency measures in their own waters where there is a “serious and unforeseen threat to the conservation of living aquatic resources, or to the marine ecosystem resulting from fishing activities” and within a relatively short-term time frame of one month. The measures are temporary and may not exceed more than three months. If other vessels are affected, RACs and relevant Member States have to be notified. The Council has kept the right to overturn the measures. It is understood that to date these powers have not been exercised by any Member State. In any event, given the short-term nature of these emergency measures, they would not be subject to the SEA process, as they do not fall under the plan or programme definition.

##### **Inshore measures**

National measures can be adopted within 12 nautical miles to manage stocks and to reduce environmental impacts, as long as these are not discriminatory. This competence is manifested in the form of a diversity of different management systems between EU Member States. As such, the UK inshore management systems are further discussed in section 5.2, where the types of plans or programmes that may fall under SEA Directive are discussed.

However, a provision in the 2002 CFP basic Regulation that warrants mention here is that national measures may be applied to those foreign vessels that are entitled to target specified species within the 6-12nm zone. If other vessels are affected, RACs and relevant Member

States have to be “consulted”. Measures cannot be adopted if the EU has already agreed measures for the same area. It is believed that there has only been one attempt to exercise these powers. The UK established a Statutory Instrument in January 2005 banning bass pair trawling within 12 nautical miles of the coast of England in the western English Channel, as a cetacean bycatch measure. The Commission rejected the request for the domestic ban to apply to non-UK vessels because, among other reasons, the closure was considered to be “inappropriate and unlikely to achieve the desired goal”.

#### **National measures going beyond EU standards**

Member States can also take measures for the conservation and management of stocks in their waters provided that they only affect their own vessels, i.e. those flying their flag, or people established in the Member States. Again, such measures would only be subject to the SEA process if they are in the form of the plans or programmes identified in section 3.

## 5.2 UK INSHORE FISHERIES MANAGEMENT

As detailed in sections 2.1 and 5.1.1, as an EU Directive (rather than, say, a Regulation), SEA as set out under the SEA Directive is a procedure Member States are required to conduct on specific plans and programmes prepared or adopted by national, regional or local authorities. As such, more detailed consideration of what constitutes such fisheries plans and programmes warrant further discussion to understand how the SEA process applies to the sector. As Member States’ powers lie predominantly in management of inshore waters, attention is turned to this area here. This section draws on Symes (2002) and Symes and Ridgway (2003), to which the reader is directed for a more thorough analysis.

### 5.2.1 Management instruments

Although the way in which fisheries are managed throughout the UK varies because of the different institutional arrangements (0), the types of instruments used throughout the UK are generally similar. They are therefore considered here to illustrate the extent to which SEA may be applicable.

#### **Orders**

The Sea Fisheries (Shellfish) Act, 1967 applies throughout Britain. It provides for the granting of Several and Regulating Orders which enable the fishing rights in respect of an identified area of the sea to be assigned to an individual or company for the purpose of severing or regulating the public right to fish a molluscan shell fishery. In 1997 the Act was amended to include crustacean fisheries.

Several Orders are issued in relation to shellfish cultivation. They may be granted to individuals or groups of fishermen and afford the grantee exclusive rights of “depositing, propagating, dredging or taking shellfish”, and permit them “to make and maintain shellfish beds, to collect shells and remove them from one place to another”. The right of a Several fishery is granted for up to 60 years, although its specific area will not be defined in the order as it may be subject to change. They include powers to lease out portions of the seabed to individuals as lays. Such leases will usually be granted for areas less than 10 hectares and for periods of not more than 10 years.

Regulating Orders are more widely used than Several Orders. They bestow upon the grantees a right of regulating a fishery for any description of shellfish and “to carry into effect and enforce regulations and restrictions, levy tolls and royalties, deposit or propagate [shellfish]”.

An important element of a Regulating Order is that it permits the grantee to issue licences “in such numbers and to such persons for such periods [...] and at such times, in such a manner and to such an extent as may be determined”. It therefore provides a basis for effort limitation to be introduced. Although a Regulating Order allows for variation in the number of licences issued in any one season under scientific advice, it is typically expected that a licence holder will have his licence renewed annually. Effort is therefore controlled mainly through seasonal closures and days at sea limits.

In England and Wales regulating orders are mainly under the direct supervision of the Sea Fisheries Committees (SFCs) (0) with their own independent enforcement capabilities, while those in Scotland are more “local”, under the supervision of specially constituted local management committees, and so more dependent on “self-regulation”.

Reviewing the form and function of Orders leads to the question of whether they constitute a plan or a programme and hence should be the subject of an SEA. While Orders may “provide for the establishment, or improvement, and the maintenance or regulation, of a fishery for shellfish”, they do not actually provide the framework within which shellfisheries are prosecuted, in the sense that they only assign the right to regulate a fishery rather than set out how a fishery is to be developed. Because Orders are exercisable by Statutory Instrument, they are subject to RIAs (0) rather than SEAs. Furthermore, as recommended by Symes and Ridgway (2003) in reviewing environmental integration in Scottish inshore fisheries management, Orders could undergo environmental “screening” by checking they include environmental objectives and appropriate provisions to take management measures for environmental purposes. Some of these principles were included in the “resource assessment” undertaken when developing the Highland regulating Order<sup>7</sup> (David Donnan, SNH, pers com), and they could be included as part of the RIA process.

### **Restrictions and prohibitions**

Restrictions may be imposed on fishing activities at varying levels throughout the UK, locally through by-laws in England and Wales and centrally through orders in Scotland, for example. At present, it is fair to say that such restrictions are developed on a reactive and often uncoordinated basis. It is this tendency that has supported the calls for more strategic planning and management of both inshore and offshore UK fisheries. As these restrictions are not plans or programmes, they would not be subject to an SEA.

#### 5.2.2 Institutional arrangements

The institutional arrangements in different parts of the UK are important for understanding how the SEA process may be implemented, which is taken up in section 7.

### **England and Wales**

In England and Wales there are 12 SFCs that regulate local sea fisheries around virtually the entire coast of England and Wales out to six nautical miles. They are funded by local authorities and part-nominated by Defra. They regulate and enforce their own (and some

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<sup>7</sup> See [www.hsmo.org.uk/](http://www.hsmo.org.uk/)

national) requirements for fisheries and environmental purposes in inshore waters. They are empowered to make by-laws for the management and conservation of their districts' fisheries.

Some management responsibilities are shared by the SFCs with the Environment Agency (EA). The EA has direct responsibility for the protection of migratory species (salmon, sea trout and eels) throughout the 0-6nm limits, and for the issue of licences for salmon netting and eel nets and traps and, in a few specific instances where normal SFC coverage is missing, the EA assumes the responsibilities of an SFC. The EA has powers to make by-laws to regulate the fisheries under its remit, in the same ways as SFCs, to enforce these by-laws and to prosecute any offences through the courts.

### **Scotland**

Scottish inshore fisheries out to six nautical miles are managed centrally by the Scottish Executive through the Scottish Executive Environmental and Rural Affairs Department (SEERAD). The Scottish Inshore Fisheries Advisory Group (SIFAG) advises SEERAD on inshore fisheries issues. It is an independent group composed largely of industry representatives as well as environment interests and other stakeholders. SEERAD may introduce secondary legislation and make several and regulating orders.

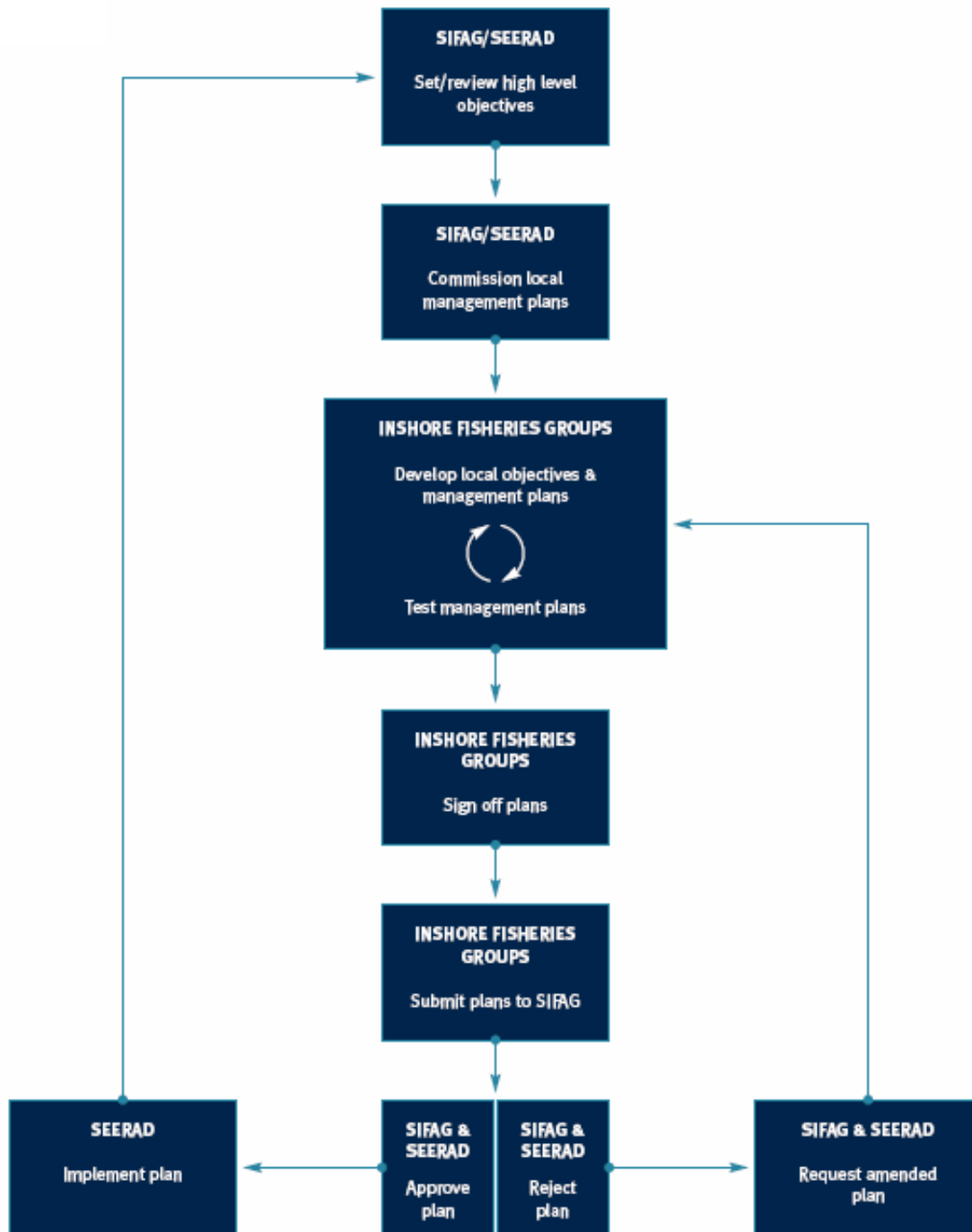
The Scottish Executive is currently developing a strategic framework for Scottish inshore fisheries (Scottish Executive, 2005). The key elements of the strategic framework are summarised in Figure 2. A significant element of this strategy, and one that is relevant to the SEA debate, is the establishment of a network of inshore fisheries groups around the Scottish coast. They will be responsible for:

- developing local objectives for inshore fisheries management within the geographical area that the group covers; and
- developing management plans to deliver those objectives.

These functions will reportedly go beyond the ad hoc provision of stakeholder advice but stop short of placing statutory duties on inshore fisheries groups, with the associated formalities and procedures. The groups will comprise industry and other stakeholders.

This raises the key question of whether such management plans should be subject to an SEA. In particular, whether the fisheries groups are a type of authority. As detailed in section 2.2.1, the SEA Directive requires an environmental assessment for certain plans and programmes prepared or adopted by national, regional or local authorities, where these are "required by legislative, regulatory or administrative provisions".

The SEA guidance document discusses the concept of an authority, based on ECJ case law. It gives as an example a privatised utility company undertaking tasks and duties which in non-privatised regimes would be carried out by public authorities. In respect of those functions they would be treated as authorities for the purpose of the SEA Directive. So, even if these fisheries groups were not strictly speaking "authorities", the SEA Directive would nonetheless apply. Furthermore, the formal approval and implementation by SEERAD would in itself be a sufficient requirement for the SEA Directive to apply. The application of SEA to these plans is discussed further in section 7.2.1.



**Figure 2** Process for developing inshore fisheries management plans in Scotland (from Scottish Executive, 2005)

**Northern Ireland**

Sea fisheries in Northern Ireland are managed centrally by the Department of Agriculture and Rural Development (DARDNI), which forms part of the Northern Ireland Executive. Similarly to SEERAD, DARDNI may introduce secondary legislation and make several and regulating orders.

While there is not a systematic planning system in place for the spatial management of fisheries activities, a Fishing Taskforce Action Plan was developed by a Taskforce for South

Down in January 2003, with a remit to examine the potential socio-economic implications on the local fishing communities of successive EU Agriculture and Fisheries Council decisions. The main focus on the Taskforce's work was on the fishing communities of Kilkeel, Ardglass and Portavogie.

The Taskforce developed the plan through public consultation events to identify additional support to that which was currently available, under six themes:

- fishing industry – diversification and sustainability;
- fishing industry – consolidating infrastructure;
- fishing industry – improved training and education;
- enhanced tourism;
- effective communications and public relations; and
- environmental improvement

The actions supporting these themes would cover issues such as identifying opportunities for aquaculture, and provide start-up and development support to new aquaculture enterprises. These activities are covered by Annex II of the EIA Directive and would set the framework for future development consent for these enterprises. Therefore the plan would require an assessment according to the SEA directive in the same way as the forthcoming EFF national strategic plans and national strategic programmes (section 5.1.2).



## 6. Fisheries SEA case studies

This section presents case studies on the application of SEA to fisheries outside the EU. Because the application of SEA to EU fisheries is limited, non-EU fisheries cases are drawn upon. Key lessons are identified; these form the backdrop of section 7, which explores the application of SEA good practice to fisheries management in the UK.

### 6.1 AUSTRALIA

The Australian Fisheries Management Authority (AFMA) undertakes a type of SEA in Australian fisheries. AFMA is the statutory authority responsible for the management of Commonwealth fishery resources. It provides management, advisory, compliance and licensing services and implements fisheries management arrangements.

The Environment Protection and Biodiversity Conservation Act 1999 requires all Commonwealth fisheries to undertake a form of SEA before AFMA can determine a management plan for the fishery.

The AFMA guidance on SEA Terms of Reference covers five main stages:

1. a description of the fishery;
2. the environment likely to be affected by the fishery;
3. the proposed management arrangements for the fishery;
4. an environmental assessment of the fishery; and
5. management measures and safeguards to ensure ecological sustainability

(see also Appendix 4).

These stages relate mostly to the environmental report required under the EC SEA Directive. While there are some differences, the two processes share several common stages. It can, therefore, serve as a useful model from which to learn when applying the SEA Directive procedure to UK and EU fisheries.

The “description of the fishery” and the “environment likely to be affected by the fishery” stages relate to the SEA Directive’s requirement of baseline data, such as species caught, fishing methods, the area fished, the number of operators and historic and current fishing effort, and the significant environmental characteristics of the area likely to be affected (protected species, coral reefs, etc).

The “proposed management arrangements for the fishery” stage covers the SEA Directive requirement of taking into consideration international/national environmental protection objectives.

The “environmental assessment of the fishery” covers the issues to be considered when assessing the environmental impact. These include among other things the impact on target species, non-target species and bycatch, and the ecosystem generally. They do not cover the broader environmental and social scope of the SEA Directive (see Box 2), but offer a helpful

description of the issues that can be addressed when evaluating the environmental impact. In addition, the SEA Directive's requirement to cover short-term, long-term and irreversible effects are addressed in the Australia SEA. The Australia SEA does not cover the secondary, cumulative, synergistic, permanent and temporary effects. However, it covers information on the degree of confidence with which the impacts can be predicted and quantified, which is not required by the SEA Directive.

The "management measures and safeguards to ensure ecological sustainability" stage covers the SEA Directive's requirement to offset any significant adverse effects on the environment. This stage also covers the SEA Directive's monitoring requirements as well as the requirement to describe feasible alternatives and the reasons for preferring certain options and rejecting others.

While the Australia SEA Terms of Reference are very detail focused, there is no discussion of consultation or participation in undertaking the SEA itself. However, the SEA is supported by specific consultative processes that are embodied in the Authority's governing legislation and undertaken as part of good fisheries management practice. In particular, AFMA is required to maintain a register of interested persons who are to be notified of draft plans of management. The Act also requires AFMA to give public notice inviting persons and organisations to have their names and addresses entered on the register (AFMA, 2002).

A case study by AFMA on the Southern and Eastern Scalefish and Shark Fishery (AFMA, 2002) provides a comprehensive example of what might be included in a more detailed fisheries SEA. The assessment is based on the Terms of Reference guidance and the *Guidelines for Assessing the Ecological Sustainability of Commercial Fisheries* to assess Commonwealth fisheries in accordance with the requirements of the EPBC Act 1999. These Guidelines provide a framework for assessing whether data collection, assessment and management responses are in place for target, byproduct and bycatch species, and whether the broader ecosystem is ecologically sustainable. The assessment is based on two main principles – to secure that overfishing does not occur, and that the impact on the environment is minimised. A detailed description of this assessment is presented in Appendix 5.

Given the similarity to the requirements of the environmental report under the SEA Directive, the Australia SEA guidance should be useful as UK authorities work to implement SEAs for the fisheries. The case study discussed above provides additional insight in how detailed an SEA can actually be. However, it is worth noting that the scope and level of detail will be up to the authority responsible for the plan or programme after consulting the consultation bodies.

## 6.2 UNITED STATES

The National Environmental Policy Act (NEPA) of 1969 requires the preparation of an Environmental Impact Statement (EIS) for joint federal and state actions that might have an impact on the environment. The EIS process is similar to the SEA process and has been conducted for fisheries management plans.

NEPA requires Federal Agencies to conduct an EIS for "proposals for legislation and other major federal actions significantly affecting the environment". The Council on Environmental Quality (CEQ) oversees the implementation of the Act.

Therivell (2004) notes that the EIS process has evolved into Programmatic EISs (PEIS). Most PEISs involve groups of projects that have technical or geographical similarities, so could be considered a form of SEA. A number of EISs have been recently submitted for fisheries management plans and, even if not a proper SEA in the EU sense, they do contain some interesting aspects from which lessons could be gleaned. The National Oceanic and Atmospheric Administration (NOAA) is the Federal Agency responsible for fisheries, within which the National Marine Fisheries Service (NMFS) is responsible for the preparation of the EIS or PEIS.

The EIS process consists of the following main stages:

- notice of intent for EIS;
- scoping process;
- draft EIS;
- public consultation;
- final EIS; and
- record of decision.

The EIS/PEIS process is started by the Federal Agency submitting a Notice of Intent in the Federal Register. This is followed by the scoping stage. The NOAA regulations require at least one scoping meeting to be held to facilitate the collection of public comments. The aim of the scoping exercise is to determine the significant issues to be addressed. The scoping stage can be very comprehensive, with a wide range of stakeholders being able to express their opinion. A good example of this is the scoping report by the NMFS for the EIS examining the potential impacts of implementing noise exposure criteria (Batelle, 2005).

After the scoping phase, the draft EIS is prepared and published. The draft must be filed with the Environmental Protection Agency (EPA), allowing a period of at least 45 days for public comments. Following the public comment period, the final EIS is prepared and distributed, after which the EPA prepares a Record of Decision, presenting the EPA's decision on the proposed action and justification. As with the SEA Directive, the EIS process does not dictate that an Agency selects the most environmentally beneficial alternative.

An EIS will include the following components:

- purpose and need for proposed action;
- description of proposed alternatives, including a No Action Alternative;
- description of the affected environment;
- description of the environmental consequences of the alternatives; and
- list of preparers.

(after informational guidelines, NEPA)

The most developed part of the EIS in the fisheries programme is the coverage of alternatives and the environmental consideration of these. How alternatives are selected and assessed in a normal SEA process has traditionally been seen as one of the most demanding and difficult stages of the SEA process. Hence the well-developed and comprehensive assessment of alternatives in the EISs for fisheries deserves to be examined in greater detail.

The NMFS undertook a draft programmatic EIS on codified regulations implementing conservation and management measures adopted by the Commission for the Conservation of

Antarctic Marine Living Resources (CCAMLR) (NOAA, 2005a). The draft programmatic EIS describes activities related to the management, monitoring and conduct of the fisheries; the ecological relationships between harvested, dependent and related populations of Antarctic Marine Living Resource; and the potential impacts on protected species, non-target species and fish habitats.

The harvesting controls considered four alternatives for imposing harvest limits, ranging from zero to issuing annual permits allowing large harvests. In addition, the programmatic EIS report considered alternatives for trade and research controls.

Another useful example is the final EIS on the regulatory adjustment to the Atlantic tunas, swordfish and sharks fishery management plan (NOAA, 2005b). The report lists 21 comprehensive alternatives, such as “close the specific area to fishing with pelagic longline gear on board”, for which the environmental consequences are considered. For each alternative the following issues are assessed:

- population and ecological effects due to changes in the bycatch of sea turtles;
- changes in the catch of other species and the resulting population and ecosystem effects;
- changes in the catch of other species and the resulting population and ecosystem effects;
- effects on marine mammals and sea birds;
- effects on essential fish habitat;
- changes in fishing, processing, disposal and marketing costs;
- changes in fishing practices and behaviour of fishermen;
- changes in research, administration and management effectiveness;
- changes in the economic, social or cultural value of fishing activities and non-consumptive uses of fishery resources;
- changes in the distribution of benefits and costs; and
- social effects.

The above examples highlight the well-developed nature of the assessment of alternatives in the EISs and hence can provide useful information on how to deal with the issue in SEAs for fisheries. However, other parts of the process seem not to be as well developed as in the SEA process required by the Directive, such as the trigger for an EIS. Or, as pointed out by Dinah Bear (2005) from the Council of Environmental Quality: “The EIS is the most well-known type of document under NEPA, but also the rarest”.

The RCEP reviewed the environmental assessment processes in US fisheries and how they worked within the governance systems. In the US, fisheries are managed under a form of co-management. Eight Regional Fishery Management Councils (RFMCs), with similarities to RACs but with more decision-making power, develop regional fishery management plans. These RFMCs build environmental assessments into the development of management plans. However, according to the *Turning the Tide* report (RCEP, 2004), this system has not worked adequately because in practice the requirements are weak and could be circumvented where there was a lack of will to give sufficient emphasis to them in determining policy. A key factor has been the predominant role given to the fishing industry in the RFMCs, leading to continuing problems of sustainability and damage to the marine environment, in particular through setting quotas too high.

In response to these problems, the US Commission on Ocean Policy was established to review the management system (US Commission on Ocean Policy, 2004). It recommended *inter alia* a radical change to the governance of marine policy and the use of marine spatial planning. However, the report does not go so far as to include a model/framework on how to conduct an SEA.

It should be noted that it was not clear from the RCEP and US Commission on Ocean Policy reports whether they were each referring to the EIS processes specifically or some other form of environmental assessment procedure. The findings and conclusions are nonetheless still relevant. A key RCEP conclusion was that environmental assessments are less effective at delivering improvements if they feed into a decision-making process that is ultimately dominated by fishing interests. Therefore it would be vital for management plans and the SEAs to be reviewed by an organisation that had marine conservation, not commercial fisheries, as its primary responsibility.

## 7. Application of SEA good practice to UK fisheries

One of the key starting points of this report was the overview of the increasing calls for the application of SEAs to the fisheries sector, most notably by the PMSU (section 1.3). In relation to its recommendation that “Fisheries departments should introduce Strategic Environmental Assessments of both inshore and offshore fisheries by the end of 2006 as the first stage of establishing comprehensive Environmental Management Systems”, the PMSU report identifies three possible frameworks within which government(s) could apply SEAs to fisheries:

- inshore fisheries management bodies (SFCs/SEERAD/DARDNI) could be required to generate SEAs within their areas;
- in the offshore context it suggests that SEAs should be carried out by UK authorities; and
- Regional Advisory Councils could also be required to carry out SEAs, building on national offshore SEAs.

Drawing on the previous analysis, it is apparent that these three areas of suggested application vary in the extent to which they technically relate to the SEA Directive requirements. That is, some of what is suggested may be required under the SEA Directive (e.g. Scottish inshore fisheries management plans) while some may not (e.g. RACs undertaking SEA). Furthermore, other areas that fall under the SEA Directive are not mentioned, such as the assessment of national plans under the EFF Regulation.

This section, therefore, begins to draw the report together with a detailed discussion of how SEA should and could be applied to the fisheries sector, at each level, within and beyond SEA Directive requirements. In each case the discussion is framed around the requirements and procedures under the SEA Directive described in section 2.2. The four stages illustrated in Figure 1 are thus presented again in each discussion, with the addition of who does what at each stage.

It is important to note that the SEA procedure is a flexible tool and the best practice will depend very much on the type of plan or programme, whether it is integrated within another assessment tool (such as sustainability appraisals), and/or whether or not objectives are set. Consequently, the following discussions can only serve as broad suggestions on how to implement the SEA Directive to different type of fisheries. That said, many of the issues such as consultation processes and costs are common throughout, therefore the first case study is longer than the others to avoid duplication. Furthermore, a number of common benefits can be highlighted in applying SEA to the fisheries sector, despite the different contexts of its application (Box 5).

**Box 5 Benefits of applying SEA to fisheries**

The benefits of the SEA process generally are equally applicable to the fisheries sector and the management of the marine environment more broadly. This includes the institutionalisation of a process for assessing the environmental impacts of plans and programmes and identifying mitigation measures. Integral to the SEA process is the fact that this is done in a transparent way through stakeholder participation. More specifically, the SEA process can support the fisheries sector and its management in the following ways:

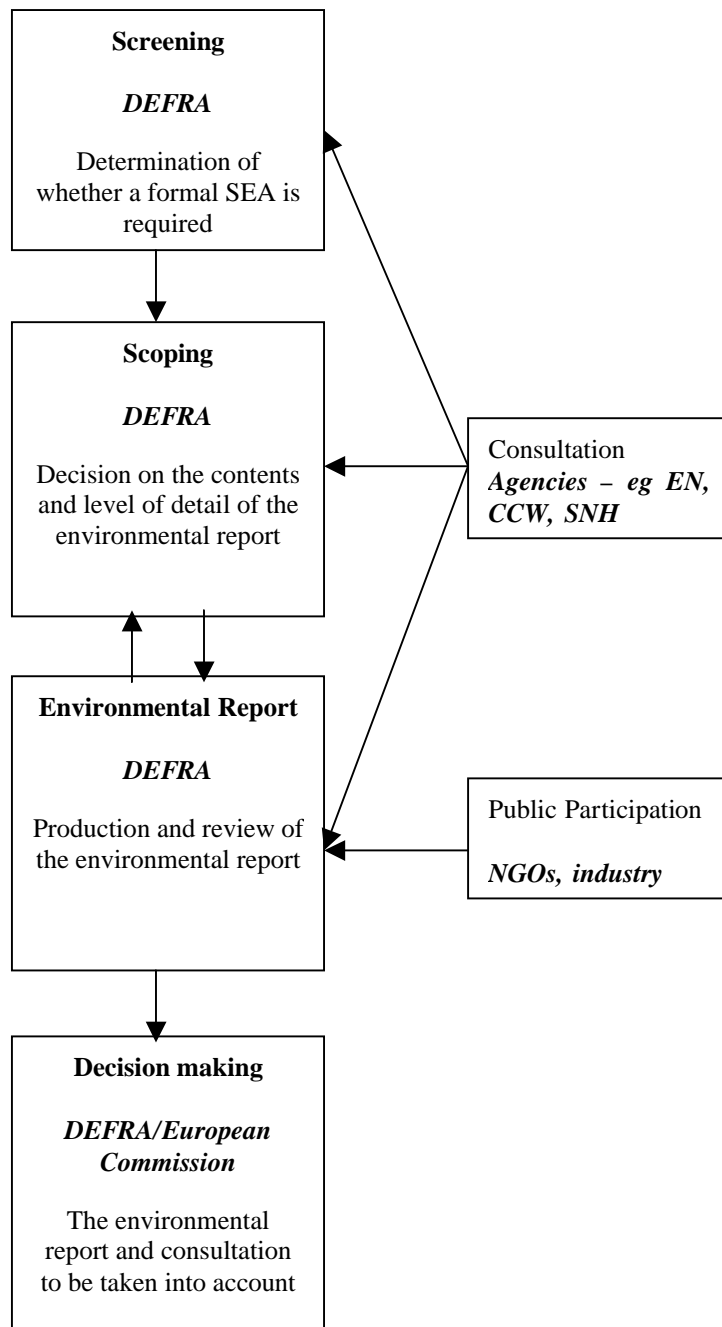
- provide an opportunity for stakeholders to participate in and influence plan development;
- identify environmentally-friendly alternatives, e.g. alternative gears, fishing grounds;
- identify effective mitigation measures and strategies, e.g. bycatch reduction measures, zonation of fishing methods;
- consider all the threats affecting an area, enabling identification and assessment of cumulative threats and impacts;
- support multi-annual and spatial fisheries management;
- help build biodiversity objectives into plan development from the outset;
- establish and consolidate monitoring systems to provide necessary fisheries and marine environmental data to support ongoing assessment and responsive management;
- support the implementation of an ecosystem-based approach to fisheries management; and
- support the application of the precautionary principle.

These benefits are equally relevant for regulators, administrators and stakeholders alike, as the SEA provides a *system* through which the correct procedural steps can be followed to support the meeting of legal obligations.

## 7.1 NATIONAL PLANS AND PROGRAMMES

### 7.1.1 EFF national strategic plans and operational programmes

As noted in section 5.1.2, each Member State is likely to be required to adopt a national fisheries sector strategic plan, as a basis for developing an operational programme for drawing down EFF funds from the EU. Because one plan and one programme will be developed for the UK, Defra will be responsible for their development and the management of the SEA process (Figure 3). Being the lead department, the costs of undertaking the SEA process would fall with Defra. Exactly how this and any other SEAs are funded would be its choice. The costs could be covered as a core activity, or financed from the budget for technical assistance of the operational programmes as provided for under the draft EFF regulation. There is no reason, however, why it should not be paid for by the industry in the same way as is being considered by the UK administrations for all other fisheries management activities. The introduction of progressive cost recovery was a recommendation of the PMSU report, and it is to be addressed by the administrations, with the inshore sector being the most likely starting point (DARDNI et al, 2005)



**Figure 3 SEA procedural steps for EFF national strategic plans and operational programmes**

**Screening and scoping**

As noted in section 5.1.2, these plans and programmes are very likely to require an SEA. In addition, the EFF proposal (COM(2004)497) requires an *ex ante* evaluation to be undertaken on the operational programme by the Member States. The *ex ante* evaluations shall aim to ensure the coherence between the plan and programme and to optimise budget allocation. Therefore, the very likely assessment of the SEA Directive would also cover these broader aspects required by the *ex ante* evaluations.



Defra is the responsible authority for the screening to assess whether an SEA is required for EFF national strategic plans and operational programmes.

Defra will then determine the level of detail of the SEA in the scoping stage, as outlined in the SEA Directive. It is a requirement that the consultation bodies be consulted in deciding on the scope and level of detail of the environmental report. As a national plan or programme, all of those consultation bodies listed in section 2.3 would be consulted. Most significant among these will be Scottish Natural Heritage (SNH), Countryside Council for Wales (CCW), English Nature and the Environment Agency. Although not a requirement, it would be useful for Defra to develop a scoping report to underpin the consultation process as well as to form a draft version of the environmental report.

The details of the Strategic Plan/Operational Programme are likely to be broad, as their geographical coverage will be national. The relationship between the plan and the programme is such that the SEA would move towards greater detail in the programme. It would be advisable to conduct the SEA for the plan and programme in parallel as a hierarchical process.

#### **Preparation of the environmental report**

Defra would be responsible for preparing the environmental report. The minimum content requirement of this report is discussed in section 2.2.3. While consultation was an important element of the screening and scoping stage, the SEA is further opened up through public participation during this environmental reporting stage.

The information required in the environmental report is detailed in Appendix 3. The environmental report requires the inclusion of the environmental baseline data and the evolution thereof without implementing the programme. The Regional Development Programmes from the current Structural Funds (1260/1999/EC) (including FIFG), require the use of an analysis of the Strengths, Weaknesses, Opportunities and Threats (SWOT-analysis) of the covered area (national/regional) and could provide some useful background information for identifying trends.

The plan or programme sets the priorities and measures for fisheries projects to be co-funded by the EU. To identify the significant effects on the environment, the impact of these priorities and the measures related to the issues listed in Box 2 need to be assessed. The type of effects to be covered would include secondary, cumulative, synergistic, short-, medium- and long-term, permanent and temporary, positive and negative effects.

The environmental report also needs to include a description of reasonable alternatives, taking into account the objectives and the geographical scope of the plan or programme, including an outline of the reasons for selecting the alternatives dealt with.

The SEA Directive further requires the environmental report to cover measures to prevent, reduce and as fully as possible offset any significant adverse effects on the environment caused by the plan or programme.

The environmental report is also required to include a description of how to monitor the significant environmental effects. This monitoring could form part of the monitoring requirements of Structural Funds.

The draft plan or programme should be made available in time to allow the public an appropriate time frame to respond. It is at this stage that NGOs and the fishing industry have the opportunity to comment on the proposed plan or programme, and so contribute to the environmental report.

### **Decision-making**

Before the plan or programme is adopted or submitted to the legislative procedure, decision-makers are required to take into account the environmental report, the opinions expressed, and the results of consultations. While the EFF Regulation is yet to be adopted, the decision-making process appears to differ for the EFF national strategic plans and operational programmes. As noted in section 5.1.2, plans are expected to be developed and adopted by Member States, with the Commission only being notified of their detail. However, it is expected that the Programme will require Commission approval, as it more specifically sets out how activities identified in the plan as those to be co-funded by the EFF are to be implemented.

## 7.2 LOCAL AND REGIONAL PLANS AND PROGRAMMES

Because of the absence of an enabling framework for developing inshore management plans (Symes, 2002), there is limited development of systematic plans or programmes at the local or regional level. Examples may include the Fishing Taskforce Action Plan developed for South Down, Northern Ireland, or plans developed by Regional Development Agencies with fisheries implications. However, because the Scottish Inshore Management Plans that are to be developed are the closest thing to a planning system in the UK, they are used here to illustrate how SEA could be applied to inshore fisheries, and to build on the work that Scotland is doing to take forward this planning system.

### 7.2.1 Scottish Inshore Management Plans

Key features of the procedure for developing inshore management plans in Scotland are outlined in SEERAD's strategic framework for Scottish inshore fisheries (Scottish Executive, 2005):

- setting out the local objectives for the inshore fisheries in the area;
- outlining the actions that are required to implement local objectives; and
- identifying the tools required to implement objectives, along with the necessary requirements for monitoring and measuring success.

It is noted that a series of tests will be applied to establish whether objectives and management measures conflict, or have unintended consequences. While it appears that it will be the inshore groups that undertake these tests, the details of these tests are not elaborated in the current strategy. Indeed, SEA or any other form of environmental or sustainability assessment are not explicitly mentioned. However, these tests are the subject of current discussion, and further guidelines are expected. As the body undertaking the SEA, it can be expected that they would cover the costs incurred. This is an area that the guidelines could be expected to cover, including options that it be a core activity to be covered under operational costs, or a specific activity for which there should be some form of cost recovery from the industry, e.g. through licensing fees. As discussed in section 5.2.2, the SEA Directive would apply to any plans or programmes developed by these fisheries groups, and it is likely that an SEA would be required.

### **Screening and scoping**

The inshore fisheries groups would begin with the screening process and subsequently determine the level of detail of the SEA in the scoping stage (Figure 4). As the plans would be local, the consultation bodies that would be consulted in deciding on the scope and level of detail of the environmental report will subsequently be the Scottish consultation bodies:

- the Scottish Ministers;
- the Scottish Environment Protection Agency; and
- Scottish Natural Heritage.

(see section 2.3). While some of these may be involved in the workings of the inshore fisheries groups as experts, e.g. SNH, it is unlikely that all of them will be represented in all groups at all times. This stage is, therefore, still important in ensuring that the three consultation bodies are fully involved, and in making sure they undertake their own statutory roles in participating. While not required, it would nonetheless be useful for the inshore fisheries groups to develop a scoping report to underpin the consultation process.

### **Preparation of the environmental report**

The inshore fisheries groups will be responsible for preparing the environmental report (see section 2.2.3), and ensuring public participation in this process. NGOs and the fishing industry should be involved in the plan development process as participants in these groups, to ensure transparency and engagement in the process. Their views should be formally recorded as part of the environmental report.

The information required in the environmental report is listed in Appendix 3. The baseline data describes the current state of the environment, and the likely evolution thereof without implementing the plan or programme. The inshore fisheries groups will develop long-term, medium-term and short-term objectives for inshore fisheries that are consistent with high level objectives, but which are tailored according to local circumstances. The development of these local objectives will be informed by the physical character and natural resources of the area (Scottish Executive 2005). These could include a description of the fishery, such as in the Australian AFMA guidance on SEA, covering issues such as species caught, fishing methods, the area fished, the number of operators and the significant environmental characteristics of the area likely to be affected (protected species, etc).

To identify the significant effects on the environment, the impact of the plan on the issues listed in Box 2 needs to be assessed. In addition, the SEA can focus in more detail on issues specifically linked to fisheries, such as the impact on target species, non-target species, bycatch and the ecosystem. The type of effects to be covered need to include secondary, cumulative, synergistic, short-, medium- and long-term, permanent and temporary, positive and negative effects.

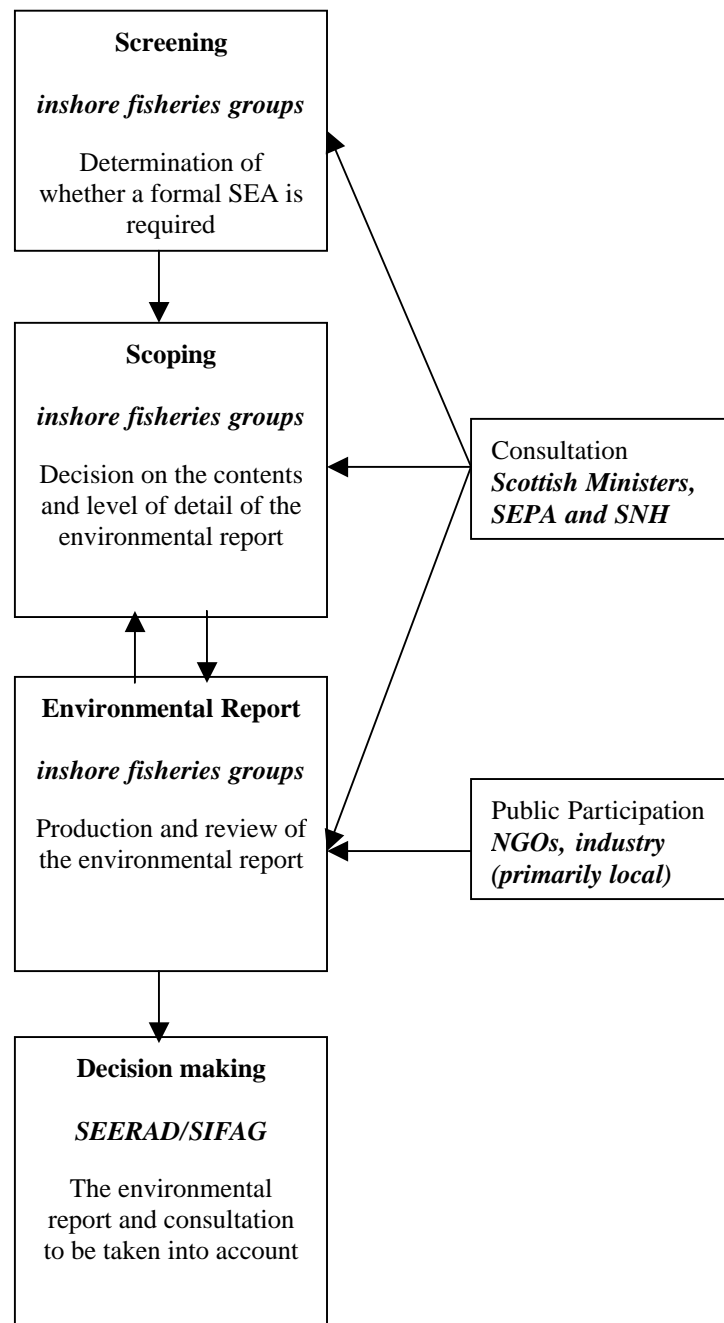
The environmental report also has to include a description of reasonable alternatives, taking into account the objectives and the geographical scope of the plan or programme. If specific targets have already been set on a policy level (and hence are not covered by the SEA Directive), the alternatives could consist of different ways of reaching the target.

In addition, the SEA Directive requires the environmental report to cover measures to prevent, reduce and as fully as possible offset any significant adverse effects on the environment caused by the plan or programme. This could be done by setting harvest control rules whereby reference points (targets and/or limits) are set that trigger management actions, including a biological bottom line and/or catch or effort limits that should not be exceeded.

The environmental report is also required to include a description of how to monitor the significant environmental effects.

**Decision-making**

As noted in section 5.2.2, SEERAD formally approves and implements the plans. In doing so, SEERAD should first take into account the environmental report, the opinions expressed and the results of consultations and publicly available statements on how this has been done (section 2.2.4).



## **Figure 4 SEA procedural steps for Scottish inshore fisheries plans**

### 7.3 INTERNATIONAL PLANS AND PROGRAMMES

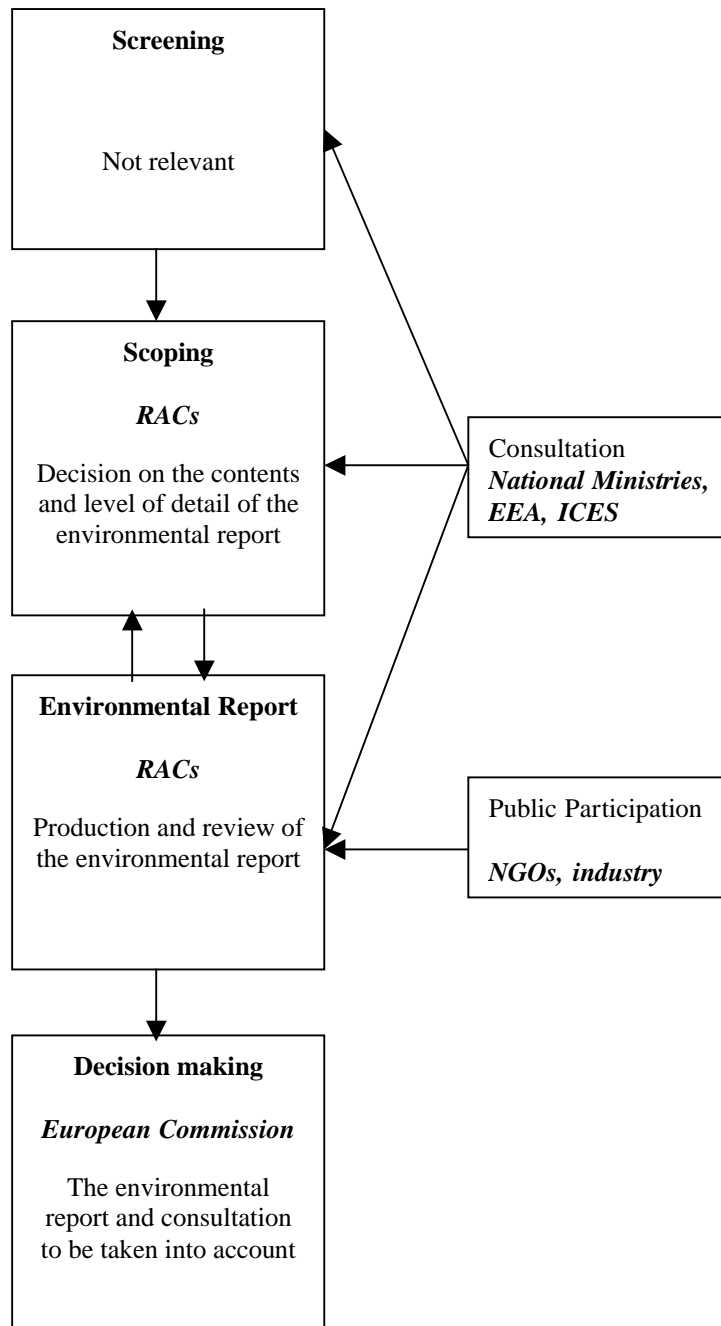
As discussed in section 3.3.1, an SEA is not required under the SEA Directive for plans and programmes developed by EU or international institutions, such as RACs or RFMOs. However, RACs and RFMOs could undertake SEAs on their plans or programmes, drawing on the SEA Directive processes and international lessons. As such, SEAs would not be undertaken within the legal framework that has framed the previous discussions, but a more tailored approach could be devised. This could include broadening the scope to include socio-economic issues, and so make it more akin to the integrated assessments undertaken by the Commission (0). Furthermore, when the UNECE Protocol comes into force with the required number of ratifications, there will be a stronger case for an SEA approach to be adopted within RFMOs (see section 2.1). Here, procedures are suggested, building on the EU SEA system.

#### 7.3.1 RAC plans or programmes

##### **Screening and scoping**

If RACs were to apply SEA to any plans or programmes that they were to develop, they would themselves undertake the screening and scoping stage. As this is an additional activity, resourcing the RACs to do this would need to be addressed by the Member States, the Commission and the RACs themselves. While the RACs are in an early stage of development, such a process could be developed to underpin the development of EU stock recovery and management plans. As the CFP basic Regulation establishes provisions for them to be multi-species and ecosystem-based (Articles 5 and 6, Regulation 2371/2002), they could go beyond the plans that are currently in place for cod and hake and incorporate spatial planning. Because the SEA Directive does not apply (Box 4), this discussion is based on the assumption that RACs would apply SEA on a voluntary or some future legal basis, and so the SEA Directive screening criteria as discussed would not legally apply (Figure 5).

In undertaking an SEA, the first stage would be for the RACs to determine the level of detail of the SEA in the scoping stage. Assuming consultation bodies were to be consulted in deciding on the scope and level of detail of the environmental report in the same way as the SEA Directive requires, it would be most appropriate that they be national and regional. Examples could include national fisheries and environment ministries and, informally, the European Environment Agency (EEA), the International Council for the Exploration of the Sea (ICES), HELCOM or OSPAR.



**Figure 5 Potential SEA procedural steps for RAC plans or programmes**

**Preparation of the environmental report**

Following the SEA Directive procedure, RACs would prepare the environmental report through public participation. As with the Scottish inshore management plans, even though stakeholders would be involved in the RACs themselves, this process would still be useful, as it would formalise the participation procedure and open it to the broader public. The type of assessment could follow the procedure described for Scottish inshore management plans for inshore fisheries (see section 7.2.1).

**Decision-making**

Parallels can again be drawn between RACs and the Scottish inshore management plans. As RAC plans or programmes would be implemented by the EU rather than the RACs

themselves, the Commission would be the most appropriate institution to approve the plans in light of the SEAs. This is a difference to the local processes, in that the RAC is responsible for undertaking the SEA but not for approving it or the final plan. However, one of the important lessons from the US was that environmental assessments are less effective at delivering improvements if they feed into a decision-making process that is ultimately dominated by fishing interests (RCEP, 2004). Added to the fact that the EU is the legislator, this supports the case for the European Commission to be a more suitable institution to approve any RAC SEAs and plans, as it has a remit broader than commercial fisheries alone.

#### 7.3.2 RFMO plans or programmes

A possible procedure for undertaking an SEA for fisheries plans or programmes developed by RFMOs is outlined in Figure 6. As noted in the RAC SEA discussion, this process could be broadened to include socio-economic issues. The issue of costs would also apply, as it would be the RFMOs undertaking the SEA, and hence incurring the costs. Therefore, options such as cost recovery through fishing licensing or member country contributions may need to be considered. The North East Atlantic Fisheries Commission (NEAFC) is selected to illustrate the principles, although the same could be applied to any region or RFMO.

##### **Screening and scoping**

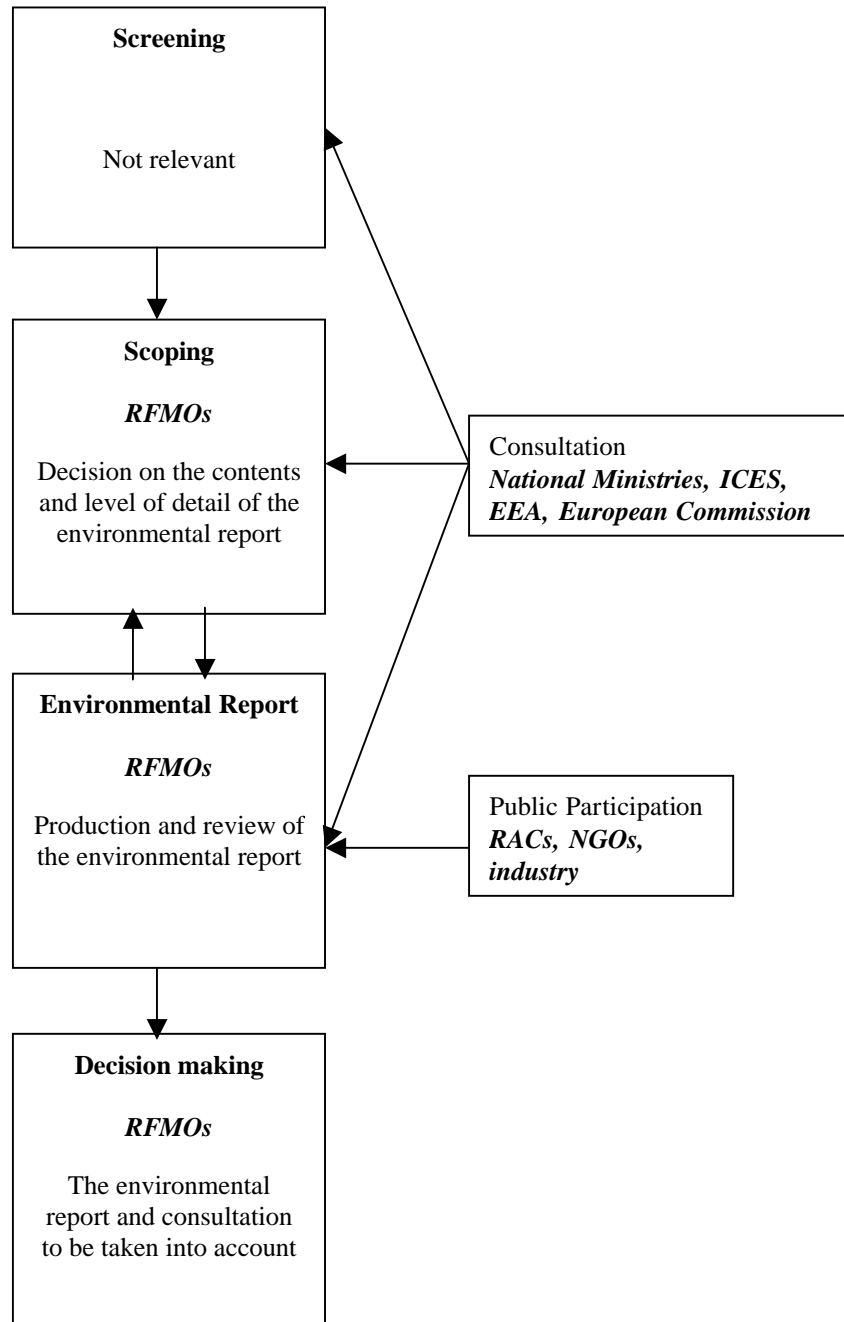
The screening stage would again not be relevant, in the sense that the SEA Directive would not legally apply. The scoping stage could be similar to that of the RACs, in terms of who should be consulted. It would again be most appropriate to consult national and regional institutions, including the European Commission given the EU's competence in fisheries management. The consultation procedure would be led by the RFMO secretariat.

##### **Preparation of the environmental report**

The RFMO secretariat would continue to develop the environmental report and undertake a public consultation. Consultees could include the RACs themselves, and any members of the public not included in RACs, such as interest groups from non-EU countries. The type of assessment could follow the procedure described for Scottish inshore management plans for inshore fisheries (see section 7.2.1).

##### **Decision-making**

A key difference to the suggested RAC procedure is that the RFMO itself is the decision maker, making it responsible for the whole SEA process from start to finish.



**Figure 6 Potential SEA procedural steps for RFMO plans or programmes**

#### 7.4 A WHOLE NEW PLANNING SYSTEM?

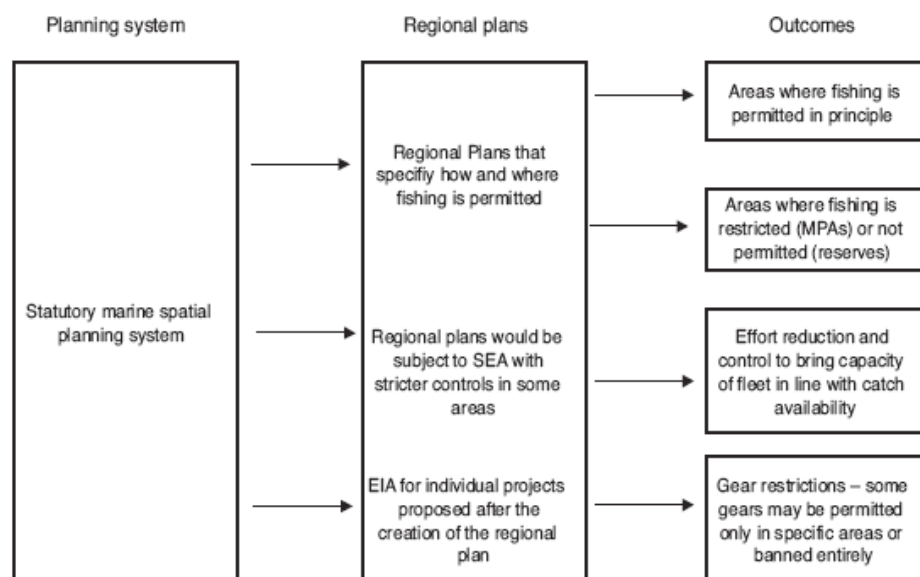
For an SEA to be undertaken, some form of plan or programme must be developed on which to apply an SEA. As evidenced by the limited review of applications in this section, a key limitation in the application of the SEA Directive to the fisheries sector is the absence of a formal planning system at the national, regional or local level across the UK. This is perhaps a reflection of the fact that the SEA Directive was drafted with terrestrial planning systems primarily in mind, where development planning is much better established.



Furthermore, to maximise the contribution of SEA to improved decision-making and the delivery of a more ecosystem-based approach to managing marine activities, any plans or programmes undergoing an SEA should relate to marine spatial planning, as WWF sets out in its vision (WWF, 2004). The only fisheries plans or programmes that begin to meet this requirement are the inshore management plans proposed for Scotland. The EFF plans and programmes are not, as they stand, to be linked directly to a spatial planning system. To fully realise the benefits of SEA, this leads to the conclusion that some form of marine spatial planning system that includes fisheries activities is necessary.

As noted in section 1.3, the most comprehensive analysis of the application of SEA in respect to fisheries has arguably come from the RCEP. Its recommendation for the application of SEA (and EIA) was made within the broader recommendation that a comprehensive system of marine spatial planning should be developed. It was further discussed that this would require some form of institutional environment, working somehow with what is in place or developing new institutions. This recommendation is reproduced in Figure 7.

The absence of an enabling framework for developing inshore management plans was also recognised by Symes (2002), reiterating the call from Symes and Pope (2000) for a system of regionalised planning as a mechanism for implementing an ecosystem approach to fisheries management.



**Figure 7 RCEP proposed process in which SEAs could sit**

The details of these proposals are not repeated here. Rather, the case for such strategic spatial planning is echoed, especially in the context of applying SEA to the fisheries sector. Indeed, marine spatial planning is being explored by Defra through the marine spatial planning pilot consortium<sup>8</sup> and is to be part of the forthcoming Marine Bill that Defra is developing and in the process of consulting on<sup>9</sup>. The key point is that any such marine spatial planning should fully encompass fisheries activities, to which SEA can then be applied. Similarly, any

<sup>8</sup> [mspp.abpmer.co.uk/mspp/index.asp](http://mspp.abpmer.co.uk/mspp/index.asp)

<sup>9</sup> [www.defra.gov.uk/environment/water/marine/uk/policy/marine-bill/key.htm](http://www.defra.gov.uk/environment/water/marine/uk/policy/marine-bill/key.htm)

fisheries-related planning systems that are or will be developed, such as those required by the forthcoming EFF Regulation, should be married to marine spatial planning.

## 7.5 IMPLEMENTING OUTCOMES

The discussion so far, both within this report and in other fora, has focused on how the SEA process should and could be applied to the fisheries sector. The final element of this process, that is implementing mitigation measures, has received relatively little attention. Indeed, the SEA process does not answer the question of how to implement mitigation measures, but is more concerned with the process of reaching conclusions on what they should be. As noted in section 2.2.4, SEAs are more about change of process, culture and attitudes than immediate outcomes.

The environmental report has to cover measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment caused by the plan or programme. While such preventative measures could include incentives for the fishing industry to employ less harmful fishing gears or voluntary controls from the fishing industry itself, the preferred instrument for fisheries management in the UK and the EU more broadly is command and control legislation.

This raises a second fundamental challenge for employing mitigation measures outside of inshore waters. For marine-based policy approaches to be effective in fisheries conservation beyond inshore waters (12nm), they need to be reflected in the words and details of CFP legislation, for two key reasons:

- The EU's "exclusive competence" in fisheries management means that CFP agreement is a necessary precondition for marine conservation. As discussed in section 5, Member States can only take unilateral action where they have explicitly been delegated powers by the Community, which it has largely done for the narrow coastal zone of 12nm (until 2012). Even within this coastal zone, measures taken by Member States must not be in conflict with the overall CFP. If measures affect vessels from other countries, then European Commission endorsement is required before they can be introduced. Thus, while the UK is free to promote marine nature conservation objectives in fora at national, EU and international levels, fisheries matters have to a large extent to be dealt with by reference to the EU's CFP and the EU institutions that decide on the CFP. For the UK, this primarily means working within the Council of Ministers, even if it wants to pursue fisheries management nationally, regionally or globally.
- It is important to remember, however, that the reference to the CFP is not only a necessity for marine environmental management. There are of course enormous advantages of securing EU-wide policies – particularly for "green" countries wishing to meet their international and EU environmental commitments. While some progress in better utilising and protecting the UK's marine environment could be secured unilaterally, most fish, fishermen and fish products cut across political boundaries. Concerted regional, European and even international action is therefore required if marine protection and more efficient use of the marine environment generally is to be complete and effective.

For waters beyond 12nm there is, therefore, a mismatch between the level at which SEAs may be conducted (the national level) and the level at which mitigation measures are taken (the EU level). This mismatch should not exist to the same extent in inshore waters or in the international context outlined, where there is a clearer link between the parties undertaking the SEA and the legislators. Added to this mismatch on taking fisheries conservation measures, there is some ambiguity about who should lead on safeguarding habitats afforded protection under the Habitats Directive against the damaging effects of fishing vessels in offshore waters, even though there is a requirement on Member States to protect such habitats in their “territory” (see Owen 2004).

The mismatch means that national planning and SEA systems should be linked into the EU decision-making systems. Options for linking national planning and SEA systems into the EU decision-making systems include:

1. using SEA to identify mitigation measures to take to the Commission and Council. To be effective (i.e. secure the decisions required) this would require effective inclusion of other Member States in the SEA process; or
2. the planning and SEA process could be undertaken at the RAC level in order to secure stakeholder buy-in and so use it as an international consensus-building tool within RACs.

While option two may be more appropriate, it raises questions of how such regional plans would then relate back down to national marine spatial planning systems (of the UK or otherwise). Systems would have to be put in place to avoid national marine spatial plans that covered all marine activities other than fisheries, which sit outside in a regional plan. This would undermine marine spatial planning and consequently efforts to implement the ecosystem-based approach to managing the marine environment. It should be recalled that in the US it was found that environmental assessments were less effective at delivering improvements when they fed into a decision-making process ultimately dominated by fishing interests. It remains to be seen whether the Commission taking forward RAC recommendations will be enough to avoid this potential challenge. Finally, resourcing RACs would also have to be resolved so that they have the capacity to undertake such plans and SEAs.

## 8. Conclusions

SEA is a process that presents a number of opportunities for improving fisheries management. It can contribute to improved stakeholder participation and help deliver a more ecosystem-based approach to fisheries management, both of which are objectives of the CFP.

With the SEA Directive now in force and transposed into national legislation, there are specific types of fisheries plans and programmes for which SEAs are required. In particular, this includes plans and programmes that set the framework for future development consent of projects listed in Annex I and II of the EIA Directive. This includes intensive aquaculture and port developments, but not fishing activities. However, an SEA is required for fishing activities in those instances where plans and programmes set the framework for future development consent of fishing activities and are likely to have significant environmental effects. Examples of such plans may include the inshore fisheries management plans to be developed throughout Scotland. Other plans and programmes expected to require an SEA are those subject to “appropriate assessments” under the Habitats Directive and the forthcoming EFF national strategic plans and national operational programmes.

The legal starting point to the analysis is important because it sets out what is required by Member States, including the UK, in applying SEA to the fisheries sector. As noted, the screening stage of the SEA process is often considered particularly important, as this determines whether an SEA is applied, and can attract legal challenges against decisions not to apply SEAs. Decisions on whether to apply SEA, and the outcomes of any legal challenges against decisions not to undertake an SEA, would be based on the details of the SEA Directive and national transposing texts.

While the legal analysis is clearly important, in a UK context it may become academic if intentions to implement the PMSU recommendations to apply SEAs as matter of routine in the fisheries sector are met. This leads to the question of how SEA should best be applied to the fisheries sector, which may include going beyond the minimum requirements of the SEA Directive.

The SEA Directive and subsequent Commission and national guidance notes provide a useful starting point on how to apply SEA generally, including to the fisheries sector. Australia presents a useful model and a wealth of lessons for applying SEA to fisheries, with the US experiences also being informative. While details of the application of SEA to fisheries remain important, two fundamental stumbling blocks are that there are few systems for the development of fisheries plans or programmes, and where they do exist, implementing the outcomes can be difficult because of the mismatch between the level at which mitigation measures are identified (national) and taken (EU).

To overcome this, a comprehensive marine spatial planning system is required that links into the EU fisheries management decision-making systems. Marine spatial planning systems have been the topic of various discussions and report recommendations, and are being explored by Defra. They are being considered as part of the UK Marine Bill. However, the links to the EU institutions for fisheries management purposes have apparently received less attention, despite their importance.

Such links could be achieved by simply using SEA to identify mitigation measures to take to the Commission and Council. This would require effective inclusion of other Member States in the SEA process. Alternatively, a planning and SEA system could be established at the RAC level. This could help secure stakeholder buy-in and potentially make SEA an international consensus-building tool. It is likely that the European Commission would have to play a role in ensuring the SEAs are undertaken in sufficient detail to avoid the same mistakes being made as in the US, where industry domination in the decision-making process meant that environmental assessments were less effective at delivering improvements. The resourcing of RACs would also have to be resolved, so that they have the capacity to undertake such plans and SEAs.

While the purpose of an RAC-level approach would be to ensure an international approach to fisheries planning and SEAs, safeguards would have to be developed to ensure the plans relate back down to national marine spatial planning systems. Without this, fishing activities may end up sitting outside national marine spatial plans that covered all other marine activities, and so undermine marine spatial planning efforts and the implementation of an ecosystem-based approach to managing the marine environment.

While the mechanisms for national and international SEAs are worked through, there is little reason why the UK should not proceed with applying SEA to individual fisheries, in which it can apply mitigation measures. From such an approach, the UK can begin to meet its obligations under the SEA Directive as well as start to generate lessons and capacity in the area. These could then be transferred to the national, RAC and eventually international RFMO level.

Finally, to come full circle in the discussion, while it is important that the procedures required under the SEA Directive are deliberated, not least in terms of understanding the types of plans and programmes to which Member States are legally required to apply SEA, the legal requirements should not become a distraction from the very purpose of SEA. SEAs are more about change of process, culture and attitudes than immediate outcomes, especially when the SEA process is relatively unfamiliar to those conducting the assessment. As a result, when SEA becomes resisted or grudgingly accepted by its implementers, it begins to lose its value as a tool for improving decision-making. It is, therefore, a process that should be welcomed by those implementing it, in recognition that it improves transparency, stakeholder participation and assessment of the environmental impacts of plans and programmes. Ultimately, application of SEA to the fisheries sector should thus support fisheries management and management planning and strengthen the position of the fisheries sector by placing it on an equal footing with other industries.

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## **Appendix 2 Plans and programmes covered by the Directive**

### ***1. The characteristic of the plan and programme***

- The degree to which the plan or programme sets a framework for projects and other activities, either with regard to the location, nature, size and operating conditions or by allocating resources.
- The degree to which the plan or programme influences other plans and programmes, including those in a hierarchy.
- The relevance of the plan or programme to the integration of environmental considerations, in particular with a view to promoting sustainable development.
- Environmental problems relevant to the plan or programme.
- The relevance of the plan or programme to the implementation of Community legislation on the environment.

### ***2. Characteristics of the effects and of the area likely to be affected, having regard in particular to:***

- The probability, duration, frequency and reversibility of the effects.
- The cumulative nature of the effects.
- The transboundary nature of the effects.
- The risks to human health or due to accidents.
- The magnitude and spatial extent of the effects (geographical area/population size).
- The value and vulnerability of the area likely to be affected due to:
  - special natural characteristics or cultural heritage;
  - exceeded environmental quality standards or limit values; and
  - intensive land use.
- The effects on areas or landscapes that have a recognised national, Community or international protection status.

### **Appendix 3 Information to be included in the environmental report**

- An outline of the contents and main objectives of the plan or programme, and the relationship with other relevant plans and programmes.
- The relevant aspects of the current state of the environment, and the likely evolution thereof without implementation of the plan or programme.
- The environmental characteristics of areas likely to be significantly affected.
- Any existing environmental problems that are relevant to the plan or programme including, in particular, those relating to any areas of particular environmental importance, such as areas designated under the Birds or Habitats Directive.
- The environmental protection objectives, established at international, Community or Member State level, that are relevant to the plan or programme, and the way those objectives and any environmental considerations have been taken into account during its preparation.
- The likely significant effects on the environment, including the following and the interrelationship between them:
  - biodiversity
  - population
  - human health
  - fauna
  - flora
  - soil
  - water
  - air
  - climatic factors
  - material assets
  - cultural heritage (including architectural and archaeological)
  - landscape
- The likely significant effects include:
  - secondary, cumulative and synergistic
  - short-, medium- and long-term
  - permanent and temporary
  - positive and negative
- The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme.
- An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken, including any difficulties (such as technical know-how) encountered in compiling the required information.
- A description of the required monitoring programme
- A non-technical summary of the information.

## **Appendix 4 Stages in the Australia SEA**

### *A description of the fishery*

Including (but not limited to) the agency responsible for management of the fishery, species caught, fishing methods, the area fished (including a map), the number of operators and historic and current fishing effort.

### *The environment likely to be affected by the fishery*

Needs to identify significant environmental characteristics of the area likely to be affected by the fishery, such as marine protected areas, components of biodiversity, threatened and other protected species, a description of seagrass and benthic communities, important features such as coral reefs, seamounts and estuaries, and other aspects of the biophysical environment potentially affected by the operation of the fishery.

### *The proposed management arrangements for the fishery*

The assessment must include a description of legislation and policies that are relevant to the management of the fishery and its environmental impacts, and the agencies that are responsible for the administration of relevant legislation and policies. International agreements that affect the management of the fishery should also be identified.

### *An environmental assessment of the fishery*

The assessment must include a comprehensive analysis of the potential impacts of the fishery on the environment. In particular, the assessment must demonstrate that the fishery is ecologically sustainable in terms of the impact on:

- target species;
- non-target species and bycatch; and
- the ecosystem generally (including habitat).

In addition, the assessment must include:

- a description of the potential impacts of the fishery on the environment (including, to the extent possible, information on the degree of confidence with which the impacts can be predicted and quantified);
- an analysis of the nature and extent of the likely environmental impacts, including whether the impacts will be short- or long-term;
- an assessment of whether any environmental impacts are likely to be unknown, unpredictable or irreversible;
- an analysis of the significance of the potential impacts;
- reference to the technical data and other information relied upon in assessing the environmental impacts of the fishery; and
- consideration of impacts associated with the conduct of the fishery, such as the discharge of waste and other pollution risks (such as lost gear).

*Management measures and safeguards to ensure ecological sustainability*

This section of the assessment must provide a detailed analysis of the specific elements of the proposed management regime for the fishery that are designed to ensure the fishery is ecologically sustainable.

The assessment must identify and describe the specific measures intended to prevent, minimise or compensate for the potential environmental impacts of the fishery, and any measures to rehabilitate damage to the environment. The assessment should include an analysis of the expected or predicted effectiveness of these measures. It must also identify any programme that is proposed to monitor the impacts of the fishery on the environment in the short and long term.

The assessment should, to an extent that is reasonably practicable, describe any feasible alternatives to the proposed management arrangements (or elements of those arrangements). The alternatives should be discussed in sufficient detail to make clear the reasons for preferring certain options and rejecting others. Discussion should cover matters such as alternative fishing methods and technologies, increasing or reducing permitted levels of effort, alternative mechanisms for controlling effort, and other alternative measures for preventing or minimising environmental impact.

## **Appendix 5 Assessment of the southern and eastern Scalefish and shark fishery against the guidelines for assessing the ecological sustainability of commercial fisheries**

### **Stocks are at sustainable level**

Covers the following:

- A reliable information collection system in place, appropriate to the scale of the fishery. The level of data collection is based upon an appropriate mix of fishery-independent and dependent research and monitoring.
- A robust assessment of the dynamics and status of the species/fishery and periodic review of the process and the data collected. Assessment includes a process to identify any reduction in biological diversity and/or reproductive capacity. A review takes place at regular intervals but at least every three years.
- The distribution and spatial structure of the stock(s) is established and factored into management responses.
- Reliable estimates of all removals, including commercial (landings and discards), recreational and indigenous, from the fished stock. These estimates are factored into stock assessments and target species catch levels.
- A sound estimate of the potential productivity of the fished stocks and the proportion that could be harvested.
- Reference points (target and/or limit), that trigger management actions, including a biological bottom line and/or a catch or effort upper limit beyond which the stock should not be taken.
- Management strategies in place capable of controlling the level of take.
- Fishing is conducted in a manner that does not threaten stocks of by-product species.

### **Recovery of overfished stocks**

Covers the following:

- A precautionary recovery strategy is in place specifying management actions, or staged management responses, that are linked to reference points. The recovery strategy applies until the stock recovers, and should aim for recovery within a specific time period appropriate to the biology of the stock.
- If the stock is estimated as being at or below the biological and/or effort bottom line, management responses such as a zero targeted catch, temporary fishery closure or a “whole of fishery” effort or quota reduction will be implemented.

### **Summary of assessment against Objective 2.1 (Bycatch species are not threatened)**

Covers the following:

- Reliable information, appropriate to the scale of the fishery, is collected on the composition and abundance of bycatch.
- There is a risk analysis of the bycatch with respect to its vulnerability to fishing.
- Measures are in place to avoid capture and mortality of bycatch species, unless it is determined that the level of catch is sustainable (except in relation to endangered, threatened or protected species). Steps must be taken to develop suitable technology if none is available.
- An indicator group of bycatch species is monitored.
- There are decision rules that trigger additional management measures when there are significant perturbations in the indicator species numbers.

**Impacts on protected species are avoided**

Covers the following:

- Reliable information is collected on the interaction with endangered, threatened or protected species and threatened ecological communities.
- An assessment of the impact of the fishery on endangered, threatened or protected species.
- An assessment of the impact of the fishery on threatened ecological communities.
- Measures in place to avoid capture and/or mortality of endangered, threatened or protected species.
- Measures in place to avoid impact on threatened ecological communities.

**Impacts on the broader ecosystem are minimised**

Covers the following:

- Information appropriate for the analysis is collated and/or collected covering the fisheries impact on the ecosystem and environment generally.
- Information is collected and a risk analysis, appropriate to the scale of the fishery and its potential impacts, is conducted into the susceptibility of each of the ecosystem components to the fishery.
- Management actions are in place to ensure significant damage to ecosystems does not arise from the impacts described.
- There are decision rules that trigger further management responses when monitoring detects impacts on selected ecosystem indicators beyond a pre-determined level, or where action is indicated by application of the precautionary approach.