



Lessons Learned for Marine Spatial Planning in Scotland

January 2010

Scottish Sustainable Marine Environment Initiative

SSMEI Clyde Pilot

**Lessons Learned for Marine Spatial
Planning in Scotland**

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January 2010



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GLOSSARY AND ACRONYMS

AGMACS	Advisory Group on Marine and Coastal Strategy
DASSH	Data Archive for Seabed Species & Habitats
FoCF(CG)	Firth of Clyde Forum (Core Group)
FRS	Fisheries Research Services
fte	full time equivalent
GCVSPJC	Glasgow and the Clyde Valley Structure Plan Joint Committee
GIS	Geographic Information System
ICES	International Council for the Exploration of the Sea
IFG	Inshore Fisheries Group
MEDIN	Marine Environmental Data & Information Network
MESH	Mapping European Seabed Habitats
MNCR	Marine Nature Conservation Review
MoU	Memorandum of Understanding
MSP	Marine Spatial Plan
RBMP	River Basin Management Plan
SEA	Strategic Environmental Assessment
SEPA	Scottish Environment Protection Agency
SNH	Scottish Natural Heritage
SMR	Scottish Marine Region
SSMEI	Scottish Sustainable Marine Environment Initiative
SSTF	Sustainable Seas Task Force
WFD	Water Framework Directive

ACKNOWLEDGEMENTS

The authors thank members of the SSMEI Clyde Pilot Steering Group for their vital input to this report. We also thank Fiona Mills of the Firth of Clyde Forum for finalising the report and arranging its publication.

EXECUTIVE SUMMARY

The Marine (Scotland) Bill proposes a new framework for statutory Marine Planning including the development of a strategic National Marine Plan and the creation of Scottish Marine Regions (SMRs) within which Regional Marine Plans will be developed.

This report examines the work of the Scottish Sustainable Marine Environment Initiative (SSMEI) Clyde Pilot, which, over three years from July 2006, has drafted a strategic Marine Spatial Plan for the marine or tidal extents of the Firth of Clyde. This voluntary Plan has been developed by a small Project Team (1.6fte) overseen by a pre-existing Steering Group of stakeholders and regulators with an independent Chair. The report highlights lessons learned from the experience of the SSMEI Clyde Pilot and makes recommendations with respect to the possible nature of Regional Marine Plans, the structures and processes under and by which they might be developed, and resource requirements.

The report includes a process chart and timeline detailing how the draft Clyde Plan was developed (Appendix 3). This report's conclusions were informed by critical analysis of the process chart by the Project Team and Steering Group and by responses to the public consultation on the draft Plan.

Several lessons are drawn with respect to the form and function of regional marine plans. The scope, remit and overarching objectives of such plans, as well as their relationship to other marine and coastal management tools (including RBMPs, IFGs and terrestrial development plans), need to be clear from the outset. Plans should focus on delivery of sustainable development of maritime activities. They should be policy led, but also sufficiently spatial to provide useful locational guidance for developers and regulators. This requires development of web-based GIS for SMRs, which should both support the planning process (e.g. by enabling constraints mapping) and also assist subsequent project level decision making within the strategic context provided by the plans. The creation of a specialist marine data and GIS team within Marine Scotland is recommended to support the work of regional marine planners.

Regional marine plans should not be sectorally based, but should instead focus on developing policies that arbitrate between different interests while also safeguarding ecosystem functioning and the interests of (coastal) communities. Effective national co-ordination will be essential across SMRs to ensure consistency of overall approach whilst also addressing regional issues and opportunities. Guidance will be required with respect to key issues including application of the ecosystem approach, the role of marine planners with respect to the safeguarding of marine biodiversity, and the relationship between marine and terrestrial plans.

The process of developing regional marine plans requires initial project scoping to identify: resource requirements; which stakeholders should be involved in plan development and how; and, key tasks. Focused data gathering and associated stakeholder engagement are required at an early stage to assist planners to understand the defining features of the SMR and to identify significant issues and conflicts requiring development of policies for management. A matrix based approach to gathering and presenting information on interactions amongst sectors and activities proved valuable within the Clyde Pilot. Plan development should also be underpinned by decision support tools, including Strategic Environmental

Assessment (SEA), to assist in choice of optimal policy options and to identify mitigation or enhancement measures.

Ownership of the planning process needs to be clear from the outset. In this context the respective roles and responsibilities of the Project Team, Project Partners and any wider Steering/Advisory/other Stakeholder Groups, and the Chairs of such groups, need to be clearly defined and agreed. A lack of clarity on these aspects within the Clyde Pilot generated delays and uncertainties.

The Clyde Pilot benefitted greatly from the pre-existence of the Firth of Clyde Forum Core Group and from the experience of this group's Chair. When establishing Stakeholder Groups it is necessary to balance width of interests represented against the requirement to keep group sizes workable. This aspect should be considered as part of the development of a wider consultation strategy from the outset of plan development. Particular attention needs to be given to how best to represent and engage Local Authorities in SMRs where more than one such authority is involved. Statutory regulators and advisers, including Local Authorities, need to be willing and able to commit sufficient resources to enable their full and appropriate participation in marine planning processes

Meetings need to be well structured and held at locations or via media convenient to the members. The use of professional facilitators is valuable when seeking to gather structured information or reach consensus.

Planning teams need to be of a size and made up of appropriate personnel to encompass a wide range of skills and expertise including: policy analysis and development; stakeholder engagement and facilitation; SEA; knowledge of maritime activities, marine ecosystems and legislation; and project management and administration. The Clyde Pilot project team, through their experience in the development of the Plan, believe that resources equivalent to 6fte staff over 3 years will be required to develop statutory spatial marine plans for SMRs in busy areas, such as the Firth of Clyde.

A partnership approach to the development of marine plans provides planning staff with autonomy whilst also enabling access to data and expertise within partner organisations. However, management and employment arrangements for project staff require careful consideration to ensure that no single body has undue influence in plan development whilst also providing appropriate management support and encouraging staff retention. Clarity is also required with respect to which organisation(s) are ultimately responsible for information and data management and where project documents and data should be held or archived.

The initial financial resources committed to the Clyde Pilot fell substantially short of those which will be required for the development of statutory plans for SMRs. In particular, no funding was initially put in place for SEA, for public consultation or for printing and other dissemination costs. In addition, the funds available for data gathering and collation were inadequate. Funding for this latter aspect will be particularly important in the first round of statutory marine planning in Scotland if fundamental issues with respect to availability of marine data in formats appropriate to regional planning are to be overcome.

1 INTRODUCTION

The Marine (Scotland) Bill proposes a new framework for statutory Marine Planning to inform the management of Scotland's waters out to 200nm. The Bill includes provisions for the development of a strategic National Marine Plan and the creation of Scottish Marine Regions within which Regional Marine Plans will be developed.

The possible nature of Regional Marine Plans and the structures and processes under and by which they might be developed are the subject of ongoing debate. Marine Scotland are considering these matters, in consultation with marine stakeholders, and will make recommendations to Ministers on relevant secondary legislation once the Bill has been enacted.

This report draws on the experience of a Marine Planning pilot project, the SSMEI Clyde Pilot, to make some observations and recommendations to Marine Scotland concerning future Regional Marine Planning in Scotland.

1.1 Context: Marine Planning in Scotland

The first Scottish Marine Bill was introduced to the Scottish Parliament in April 2009 and in November 2009 entered Stage 2 of the parliamentary scrutiny process. The Bill aims to enhance marine management and stewardship of Scotland's seas and covers marine planning, marine licensing, marine conservation, protection of seals and enforcement.

Marine planning is increasingly widely recognised throughout the world as a valuable tool for marine management. However, the relative emphases placed on its potential contribution to:

- (sustainable) economic development;
- protection of marine resources and biodiversity; and/or,
- resolution of conflicts among maritime sectors

have varied considerably in those places where it has so far been applied.

Under the Marine (Scotland) Bill, marine planning is viewed as a tool for “managing the competing demands for the use of the sea whilst protecting the marine environment”¹. The Bill proposes the development of a National Marine Plan, setting out strategic objectives for the Scottish marine area out to 200nm, and the creation of Scottish Marine Regions (SMR) within which Regional Marine Plans will be developed. Regional Marine Plans are seen as enabling resolution of conflicts between sectors and the identification of key areas for key uses. SMR boundaries will be established by secondary legislation and have yet to be determined. Under the Bill, regional planning might be delegated to the lead organisation of an SMR or to a Marine Planning Partnership comprising a group of nominated stakeholders.

1.2 Scottish Sustainable Marine Environment Initiative (SSMEI)

The Scottish Government's Scottish Sustainable Marine Environment Initiative (SSMEI) was established in November 2002 in order to test novel approaches to the management of Scotland's seas and coasts. The SSMEI has included three phases: Phase I - management framework options design and pilot project scoping; Phase II - management framework creation and the inauguration of pilot projects; and, Phase III

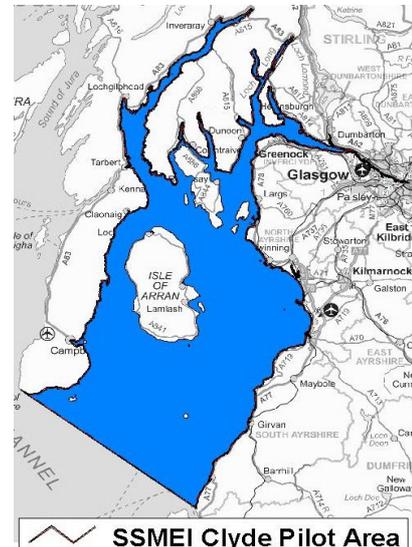
¹ Scottish Government (2009) Scotland's First Marine Bill

- pilot project implementation. The programme is now in its third phase, with four pilot projects at various stages of completion. Three of these pilots, based in Shetland, the Sound of Mull, and the Firth of Clyde include various forms of Marine Spatial Planning within their remits.

1.3 SSMEI Clyde Pilot

The SSMEI Clyde Pilot covers all the marine or tidal extents within the Firth of Clyde, encompassing some 1000km of coastline and a surface water area of some 3,650km². The Pilot began work in July 2006.

The Clyde Pilot aims to deliver better integrated and sustainable ecosystem-based management of marine and coastal areas of the Firth of Clyde, through the operation of an effective voluntary stakeholder-regulator partnership². Accordingly, a Steering Group made up of the main stakeholders and regulators within the Firth of Clyde, and with an independent chair, has provided direction and oversight to the project (see Appendix 1 for details of membership). This Steering Group was based upon the core group of the Firth of Clyde Forum, a long-established Local Coastal Partnership.



Based on Ordnance Survey Data with the permission of the Controller of HMSO (GD03135G0005)

The SSMEI Clyde Pilot partnership aims to deliver the Pilot's aims through the creation and trial implementation of a Marine Spatial Plan, together with improved decision support mechanisms and integrated decision making. These tools are to be underpinned by the application of an ecosystem based approach to sustainable development.

1.4 Firth of Clyde Marine Spatial Plan

The Clyde Pilot was specifically tasked with the development of a long-term "marine spatial plan for natural resource use, development control and management of the marine and coastal areas of the Firth of Clyde" (Cappell, 2005, p. 9). The marine spatial plan was required to integrate forward development plans for key sectors and to be delivered through a stakeholder-regulator partnership operating within the marine regulatory regime extant at the time of the Plan's development.

The draft Firth of Clyde Marine Spatial Plan (the Plan) was launched in March 2009 and opened to public consultation through to the end of June 2009. The Plan and associated technical documents can be accessed on the Plan Consultation page of the project website (www.clydeforum.com/ssmei).

The Plan establishes an overarching policy framework to facilitate the sustainable development of activities within the Firth of Clyde in support of a 20-year vision. Policies within the Plan have been developed in accordance with six guiding principles to support three high-level (social, economic and environmental) aims and eight more specific objectives.

² Cappell, R. (2005) SSMEI Clyde Pilot Project proposal – Final Report. (Contract report prepared for Scottish Executive by Royal Haskoning Ltd)

The Plan includes policies for five key sectors and four cross-cutting themes. As shown in Table 1, this structure differs somewhat from that proposed in the original project brief ²:

Policy areas within Plan	Original proposal for sectoral plans
<i>Sectoral policies</i>	
recreation and tourism	recreation and tourism
inshore fisheries	inshore fisheries
shipping and transport	shipping and industry
energy, sub-sea cables and pipelines	offshore energy
mariculture	-
	defence
	nature conservation and biodiversity
<i>Cross-cutting themes</i>	
Environment	
Heritage	
Communities	
Safety	

2 Plan Development: Process, Structures and Resources

2.1 Development Process and Timeline

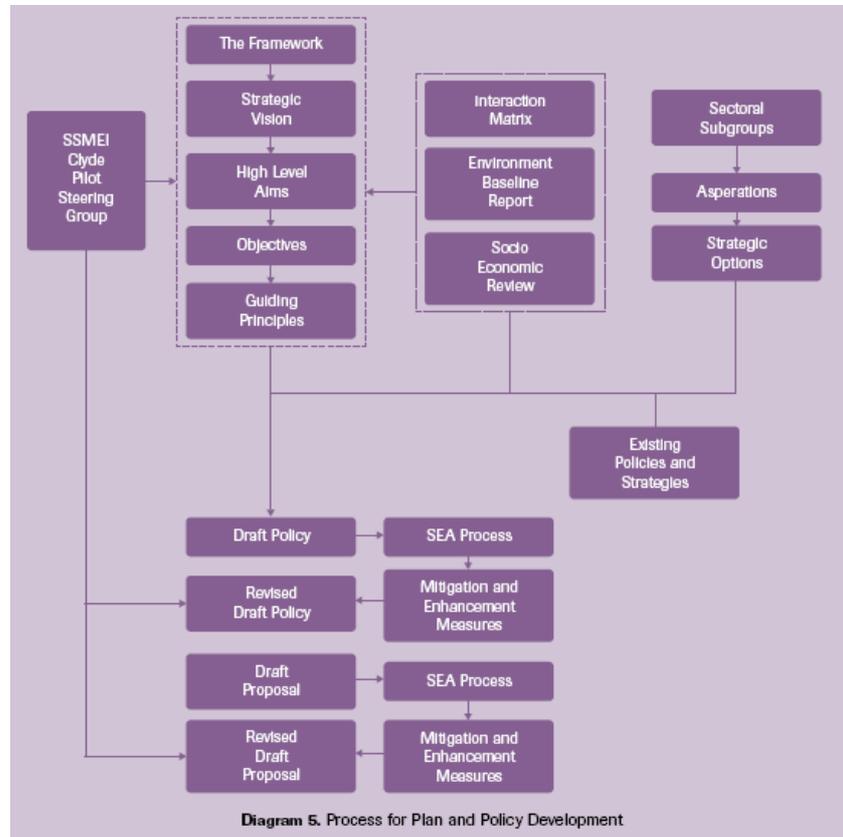
The timeline in Appendix 3 details the activities and associated elements/projects which supported development of the Plan. The activities directly associated with Plan development were:

- Information and Data gathering (including Environmental Baseline Report; Socio-economic Review; Review of Biodiversity; Indicative Seabed Habitat Mapping; Landscape/Seascape Assessment; and collation of GIS data)
- Stakeholder Engagement (including Sectoral Workshops; Sectoral Interactions Study; and public consultation on the draft Plan)
- Strategic Environmental Assessment (SEA) (including preparation of Scoping Report and Environment Report)
- Policy Development (including analysis of existing policy instruments)

The overall process by which the Plan was developed from these key activities is summarised in the diagram below. The information gathered for the environmental baseline and socio-economic review, together with study of sectoral interactions, enabled identification of issues that the Plan could potentially address within the wider existing policy and regulatory framework for marine management in the Firth of Clyde. This process, in conjunction with reference to the original project remit and the development by the Steering Group of a vision and high-level aims, informed the development of a set of overarching objectives and guiding principles for the Plan.

The compilation of the environmental baseline report also identified various data gaps, which were partially addressed through the seabed habitat mapping, landscape/seascape assessment and biodiversity review contracts.

Policies were developed with reference to the issues identified through the data compilation exercise and to the aspirations of key sectors, as identified through a series of facilitated workshops. The integration of policies within the Plan's overarching framework was informed by the sectoral interactions study and by the SEA process. The SEA was tightly integrated with the policy development process and identification of associated proposals within the action plan.



Other activities which supported the Pilot were:

- Project Management (including fundraising and budgetary management; general reporting; management of external contracts)
- Dissemination (including giving presentations to policy makers and other interest groups; and, development of materials such as an interim SSMEI Lessons Learned brochure and display banners)

2.2 Partnership Working

Working arrangements for the Pilot were established by a Memorandum of Understanding (MoU) between the Scottish Government, SNH, Firth of Clyde Forum, SEPA and Glasgow and Clyde Valley Structure Plan Joint Committee (GCVSPJC). The key elements provided by these agencies were:

- Scottish Government: project funding
- SNH: office accommodation for the Project Team and IT support
- Firth of Clyde Forum (SSMEI Clyde Steering Group): lead organisation with overall responsibility for implementation
- SEPA: employment agency for Project Officer and Project Assistant
- GCVSPJC: holding and disbursing funds on behalf of the project

The MoU also placed a general onus on the signatories to cooperate on delivery of the Pilot.

A second MoU concerning recruitment, employment, management, office housing, training and equipping of the Project Team was drawn up between SNH and SEPA.

2.3 People

2.3.1 Project Team

The original Project Team comprised a full-time project officer and part-time (0.6fte) project assistant. The team were further assisted by SEPA's Senior WFD Marine Scientist, who was allocated to the project for one day per week.

Lead responsibilities for the various activities outlined in section 2.1 were allocated within the Project Team as follows:

Project Officer

Overall project (including financial) management

Plan development

Management of external contracts

Dissemination (including development of materials; external presentations)

GIS data compilation

Public consultation

Project Assistant

SEA

Sectoral Interactions Study

General support (including events management, maintenance of reference database, minuting Steering Group meetings)

Senior WFD Marine Scientist, SEPA

Environmental Baseline Report

These allocations reflected the skill sets and experience brought to the project by individual team members. In particular, the Project Assistant role was not originally conceived to be of such a technical nature.

Employment Arrangements

The Project Officer and Assistant were initially employed for three years from July 2006. In January 2009, the SSMEI Clyde Pilot and associated Project Team contracts were extended by ten months (to end March 2010), at the same grades as initially applied to the posts. This was with the intention of enabling the Pilot to continue over the anticipated interim period up to the enactment of the Marine (Scotland) Bill without prejudicing decisions on future arrangements. This interim arrangement, which was also applied to the Shetland Pilot, was seen as potentially providing a platform for future development of sub-national marine plans in Scotland.

The Project Officer moved to another post in SEPA in early September 2009. The Project Assistant remained as the sole Project Team member until January 2010 when she moved to a post within SNH.

For most of the project lifetime, the Project Officer and Assistant were line managed by a senior member of SEPA's Environmental Science team who also sat on the national (but not local) SSMEI Steering Group.

2.3.2 Steering Group

As outlined in section 1.3 and detailed in Appendix 1, the Pilot was directed and overseen by a voluntary Steering Group made up of representatives of the main stakeholders and regulators within the Firth of Clyde. This Steering Group was based upon the core group of the Firth of Clyde Forum, a long-established Local Coastal Partnership, but included representatives from some additional sectors, including inshore fisheries.

This group had an independent chair, who also represented both the Pilot and Firth of Clyde Forum within various Scottish Government advisory groups – including AGMACS, SSTF and Marine Strategy Forum – and at other events during the course of the Pilot (see Appendix 3 for details). The Chair received payment for her role.

The timeline in Appendix 3 indicates when this group met, level of attendance at these meetings and key items discussed and decisions made. It also summarises progress with key action points agreed at these meetings.

2.4 Funding and Expenditure

A summary of project expenditure and income sources in the initial three years of the project (from July 2006 until the end of the consultation period for the draft Plan in June 2009) is given in Appendix 2.

3 EVIDENCE BASE AND METHODS

This report sets out key lessons from the experience of the SSMEI Clyde Pilot to inform consideration of the possible content and form of statutory Regional Marine Plans in Scotland and of the structures and processes under and by which they might be developed. These Lessons Learned have been derived from:

- responses to the public consultation on the draft Plan³. These responses included submissions from many of the organisations represented on the Steering Group
- critical reviews, by Project Team⁴ and Steering Group members, of the process adopted for Plan development. The views of the Steering Group on these aspects were captured through a facilitated workshop (see below).

3.1 Steering Group Workshop

The views of the project Steering Group, on the process by which the draft Plan was developed and of associated structures and resources, were sought through a facilitated workshop on 13 November 2009. Participants were provided with copies of the Process Chart (Appendix 3) for the development of the draft Clyde MSP and summary of expenditure (Appendix 2).

³ Thompson, K. and Donnelly, J.E. (in prep) Draft Firth of Clyde Marine Spatial Plan: Consultation Report

⁴ Including the former Project Officer

In the first part of the workshop participants were asked to review this process and to address the following questions:

1. Were the main activities and associated elements/projects included within the development of the Plan the correct ones – were any key ones missed, conversely were any redundant?
2. Do you have any views on the timing and ordering of key elements/ projects and on whether or how this aspect could have been improved?
3. What are your views on how any particular elements / projects were carried out and how the approaches adopted affected outcomes?

The second part of the workshop examined structural and resource issues. Participants were asked to identify both positive and negative aspects of the following topics with respect to SSMEI Clyde Pilot:

- Leadership/management/decision making authority
- People (Project Team, Steering Group, others)
- Partnerships
- Resources (financial and other)
- Data and information
- (external) Policies and strategies

The final session used the outcomes from the first two sessions to arrive at a series of Lessons Learned and related recommendations for the delivery of regional Marine Planning functions as proposed by the Marine (Scotland) Bill.

Eleven members of the Steering Group took part in this workshop and an additional member, who was unable to attend on the day, submitted written comments in response to the workshop questions.

4 KEY TOPICS AND LESSONS LEARNED

This section draws on the evidence sources outlined in section 3 to consider what lessons might be learned from the experience of the SSMEI Clyde Pilot with respect to the possible nature of Regional Marine Plans, the structures and processes under and by which they might be developed, and resource requirements. Section 5 lists specific recommendations arising from this analysis with respect to future statutory Marine Planning in Scotland.

Note that in the following, Steering Group denotes the SSMEI Clyde Pilot Steering Group and Project Team denotes the Project Officer and Project Assistant.

4.1 What Form Should Regional Plans Take?

4.1.1 Spatial aspects

The responses to the consultation on the draft Clyde Plan indicated a general desire for it to be more spatial. Critical data gaps (see section 4.3.5) limited opportunities to make the Plan more spatial and it was also decided to focus the limited project resources on developing strategic policy aspects in order to provide contrast with the approach adopted by the SSMEI Shetland pilot, which had a greater focus on GIS mapping and analyses. These different approaches provide greater opportunities for

wider lessons to be drawn from the SSMEI pilots than would have been the case had the same approach been used in the different pilot areas.

Lessons Learned

Sub-national marine plans for Scotland should be sufficiently spatial to provide useful locational guidance for developers and regulators. The degree of spatial resolution required is likely to vary across regions depending on current and possible future activities within particular areas and specific environmental sensitivities to these. Options for enhancing the spatial aspect of Plans include:

- mapping of areas potentially suitable for different uses (including biodiversity protection);
- spatial analysis of constraints based on the sectoral interactions work and on identification of sensitivity of habitats/species to particular activities;
- division of the area into smaller planning units having distinctive characteristics to which particular policies may apply; and,
- development of more spatially detailed sub-plans for particularly busy or sensitive areas.

In considering spatial aspects of marine planning it is important to make a clear distinction between schematic diagrams/maps published within paper copies of Plans, which are primarily for illustrative purposes, and underlying GIS. GIS for Marine Planners should both support the planning process (e.g. through constraints mapping) and assist subsequent project level decision making with respect to development applications at particular locations.

In this context, it is the strongly held view of the Project Team that regional marine Plans should essentially be policy documents supported in their application by web-based GIS tools within which underlying data are regularly updated.

Given generic and specific difficulties surrounding access to marine data suitable for planning purposes (see section 4.3.5) and consideration of the multiple specialist skills sets required to deliver MSP (see section 4.3.2), careful consideration should also be given, within the context of establishing SMRs, as to where appropriate specialist GIS and data management capabilities should be housed (see recommendations).

4.1.2 Function and Structure of Marine Plans

The comments received in response to the public consultation on the draft Plan highlighted differences in opinion as to whether the overall purpose of marine planning should primarily be about conservation and/or restoration of natural environment and resources or about forward, sustainable, development of sectors such as mariculture, fisheries and recreation and tourism.

The remit of the Clyde Pilot to develop and then attempt to integrate sectoral development plans proved very difficult in application. The initial suggestion that Nature Conservation and Biodiversity should be treated as a sector (Table 1) was particularly problematic. The restructuring of the Plan to include a set of guiding principles and four cross-cutting themes (Table 1) was helpful to addressing some of

the difficulties arising from a sectoral approach, but did not fully resolve these. A number of consultees (including Steering Group members) felt that sectoral aspirations were given undue prominence in the Plan and that the Plan failed fully to integrate or arbitrate between, differing sectoral interests. This was recognised by the Steering Group and Project Team as being in part a consequence of the structures and remit under which the Plan was developed (see section 4.3.1), in particular the requirement to attain consensus within a large and diverse Steering Group.

Lessons Learned

The scope, remit and overarching objectives of Marine Plans need to be clear from the outset. With respect to proposed regional marine Plans, it is essential in particular to establish:

- Overall purpose: sustainable development of commercial maritime sectors with due regard to conservation and/or restoration of natural environment and resources
- Relationship with other key marine management tools, especially IFGs and WFD (RBMP)

Effective national co-ordination across SMRs will be essential to ensure consistency of overall approach and that regional marine plans add value to marine management and decision making, rather than been perceived as merely an additional level of bureaucracy.

Plans should not be sectorally based, but should instead focus on developing policies that arbitrate between different interests while also safeguarding ecosystem functioning and the interests of (coastal) communities. Planners need to understand sectoral drivers, trends, aspirations and constraints, and potentially competing or conflicting interactions among sectors, but should not be required to develop sector-specific policies.

4.2 What Should the Process be for Developing Regional Plans?

The Steering Group and Project Team reviewed the process chart (Appendix 3) to consider whether the main activities and associated projects/elements undertaken were appropriate. This review also considered the timing and ordering of projects/elements and how they were undertaken.

The Steering Group and Project Team recognised that 3 years was an unrealistic time-frame within which to develop a full spatial Plan, in particular given the level of resources as well as the Firth's geography, the novelty of the process for all concerned and lack of external guidance, and the work commitments of Steering Group members (see section 4.3). In this context, the completion of the draft Plan within this time frame was recognised as being a significant achievement and the Steering Group felt that the basic activities and associated projects/elements undertaken to develop the Plan were broadly correct and of value to decision makers.

However, poor project definition and limited guidance meant that the Project Team struggled initially in grasping what was needed to develop the Plan. This resulted in a gap of some 8 months before some of the major data collation and analysis projects required to inform the Plan's development were begun. As a consequence,

the policy development phase had to begin before the data gathering/compilation phase was completed.

The Steering Group felt that too much time was spent initially in considering the high level vision, aims and objectives rather than in identifying issues and developing policies to address these. The late development of draft policies was a factor leading to some interim loss of engagement on the part of some bodies within the Steering Group (see section 4.3.2)

The Review of Biodiversity project was useful in highlighting the lack of good habitat data and identifying sources of grey data. Its use within the draft Plan itself was limited as there was concern that highlighting known biodiversity hotspots, in the absence of sufficient information to assess the biodiversity value of large areas of the Firth, could be misleading. Similarly, the Indicative Seabed Habitat mapping project highlighted fundamental data issues, which limited the application of the outputs to the Plan itself. Some members of the Steering Group felt that there was an unequal allocation of time spent on environmental versus socio-economic data gathering projects.

The decision to subject the Plan to SEA, and the timing and quality of the SEA, were commended by both Steering Group and statutory consultees. The SEA assisted the policy development process through assessment of potential environmental (and some social) implications of individual policies, but there was no equivalent assessment of economic or wider social implications.

The matrix-based sectoral interactions study was very useful and provided the relevant information in an accessible visual format. The sectoral workshops were also seen as extremely valuable. Some members of the Steering Group felt that their format led to some polarisation of interests and the inclusion of inputs from other interests would have been beneficial. However, the single sector approach was a deliberate feature, which proved successful in encouraging openness amongst those participating. The use of professional facilitators to support key elements, such as the sectoral workshops, was found to be a good approach, although outcomes were very dependent on the quality and experience of the facilitators.

The project would have benefited from an early coherent plan for local consultation and engagement, and it was recognised, in hindsight, by both Steering Group and Project Team that earlier public consultation would have been valuable. The Steering Group's decision (in March 2009) to expand the role of public consultation on the draft Plan from that previously agreed (in September 2008) was symptomatic of the absence of a clear focus on this aspect of the planning process. Opportunities for greater consultation were also constrained by available resources, in terms both of staffing (see section 4.3.2) and funding (see section 4.3.4).

In the context of a pilot project, the variety of formats used during the public consultation (e.g. drop-in sessions, formal presentations, trade exhibitions) and the comprehensive geographical coverage were felt to be useful. However, some Steering Group members and attendees of the consultation sessions felt that the content of presentations at such events should have focused more on the draft Action Plan (i.e. proposals which might affect local residents) rather than on the process by which the Plan had been developed.

Lessons Learned

A formal scoping exercise should be undertaken as the first element in developing a marine plan and should inform ongoing project management. Scoping should include consideration of:

- direction, context and agreed objectives, including the nature of the final output (e.g. a strategic planning framework or a full spatial plan)
- stakeholders: who should be involved and what would be required of them (in terms of personnel time, data and expertise, other resources)
- resource requirements
- timing of and approach to key project tasks

Progress and status should be regularly reviewed to enable any required changes in resourcing, timing of tasks or approach to specific tasks to be identified and managed.

Data gathering and stakeholder engagement are required at an early stage to assist planners to understand the defining features of their area and significant issues and conflicts. Professionally facilitated sectoral workshops are effective in gathering information on sectoral aspirations, as is a matrix-based approach to identifying and analysing sectoral interactions. The matrix-based approach developed by the Project Team is now being further refined by the C-Scope marine planning project in Dorset. Initial identification of issues/conflicts within a planning area may require further targeted data gathering on relevant environmental, social and economic aspects.

The development of regional marine Plans should be underpinned by proactive SEA and other assessment tools designed to determine the potential environmental and socio-economic impacts of policy alternatives.

The implications of fundamental data gaps for marine planning, particularly in developing the first round of regional marine plans in Scotland, need to be understood and addressed at a strategic level (see also section 4.3.5).

It would be useful to develop a “Plan Scoping Document” at an early stage in the process for public consultation. This should identify “Defining Features” of the SMR and set out both “Issues” and “Opportunities” with respect to marine management and development. Public consultation on such a document would assist in the identification of relevant issues and opportunities for which policies should be developed and would also encourage early buy-in to the planning process by local communities and other stakeholders. More generally, a coherent approach to stakeholder engagement should be developed early within a marine planning project. Insufficient resources were available to enable the SSMEI Clyde Pilot to develop such approaches to public consultation (see sections 4.3.2 and 4.3.4).

4.3 What is Needed to Support the Process of Developing Regional Plans?

This section considers the structures and resources required to support marine planning.

4.3.1 Leadership/management/decision making authority

The pre-existence of a knowledgeable group of stakeholders, within the core group and wider membership of the FoCF, gave the project a very valuable head start, including access to a baseline of knowledge. However, the pre-existence of the Steering Group also presented leadership challenges to the incoming Project Officer. Both the Steering Group and Project Team felt that there was a lack of necessary clarity about who had overall responsibility for project management and decision making. It was unclear throughout whether the Project Team, Steering Group or Scottish Government were ultimately in charge of the process. Steering Group members continue to remain uncertain as to whether their role was intended to be strategic or managerial.

This lack of clarity as to overall responsibility for the project both fed into and was compounded by some lack of consistency in decision making by the Steering Group (e.g. with respect to format for public consultation – see section 4.2). Decisions made at the National SSMEI Steering Group also clouded this issue. The underlying uncertainty about the Steering Group's role led to inadequate support for the Project Officer, and there were no mechanisms available to ensure that action points agreed at Steering Group meetings were carried through (see Appendix 3 for examples). There was no formal agreement as to the expected role and work programme for the Chair. In particular, the absence of agreed delegated powers for the Project Team caused delays in some instances.

The retrospective identification by the Steering Group of flaws in the plan development process (section 4.2) highlights the problems around project leadership. Some on the Steering Group felt that there was a lack of structured/consistent communication between the Project Officer and Steering Group, which both reflected and further exacerbated these problems.

The Steering Group welcomed the supportive environment provided by the sponsoring department in Scottish Government, despite changing structures during the course of the pilot. However, more initial guidance, particularly with respect to ownership of the project, would have been welcomed. Also, in the latter stages of the project, due to the timing of the Marine Bill parliamentary process, uncertainties about how the Clyde Pilot might link with future statutory regional marine planning precipitated departure of both members of the Project Team before final completion of Phase III.

Lessons Learned:

Ownership of the planning process needs to be clear from the outset and should be underpinned by written guidance from Marine Scotland. Project Teams need to be given a clear mandate and objectives and delegated decision-making authority. The respective roles and responsibilities of the Project Team and any Steering/Advisory/other Stakeholder Groups, and the relationship between them, need to be clearly defined and agreed.

Employment and management arrangements for Project Team require careful consideration to ensure appropriate support (see also section 4.3.3)

4.3.2 People

Steering Group

The Steering Group demonstrated commitment to production of the Plan, particularly in the latter stages of its development when they were required to take ownership of the Plan and sign it off for public consultation. Steering Group members provided time and energy to the process over and above their day jobs. The diversity of interests represented by the Steering Group and members' networks of contacts provided valuable opportunities for wider stakeholder engagement. The importance of the Chair's role is also recognised and her experience, commitment and strong relationships with other groups were seen by both Steering Group and Project Team as making a very valuable contribution to the pilot.

There was some absence or loss of interest from some organisations in the early part of the process, but once an initial draft Plan had been developed most organisations fully engaged in the process. The lack of clarity about the Steering Group's role (see 4.3.1) made it difficult for some organisations to identify appropriate representatives on the Steering Group.

The inclusion of some additional stakeholders within the Steering Group (beyond original membership of the FoCF Core Group) was felt to have improved the quality of debate and discussions. The size and geography of the Plan area presented challenges with respect to achieving consistently high levels of attendance at Steering Group meetings. It was found that it was best to hold meetings centrally, in Glasgow, but this still incurred very considerable travel time and cost for those members of the Steering Group based in the more distant parts of Argyll and Ayrshire. The inability of all Steering Group members to attend every meeting, as well as the timing of some later additions to the Steering Group, generated delays as previously debated topics were revisited at subsequent meetings (see Appendix 3).

Five of the seven Local Authorities within the Clyde Plan area were indirectly represented on the Steering Group (through members of the terrestrial Structure/Strategic Plan teams). This limited the extent of direct engagement between the Project Team and Local Authority Councillors and staff, however, wider representation could have rendered the Steering Group too unwieldy to be workable. Recognising this limited engagement a meeting was arranged to communicate the key principles of the Plan to invited Local Authority Councillors and staff.

The extent to which partners were potentially willing to commit resources to the development and proposed trial implementation of the Plan was limited by its voluntary nature. Some nominal partners (e.g. Historic Scotland), who might otherwise have become more deeply involved, were further constrained from the outset by limited internal resources being available to address marine issues.

It was recognised by both Steering Group and Project Team that opportunities to fully utilise the wide-ranging expertise of Steering Group members were perhaps not fully grasped. This in part stemmed from the lack of clarity about who was ultimately responsible for the Plan (see section 4.3.1) and about the levels of resources that Steering Group members were able to commit to the process. Ultimately, however, this arose from the lack of resources within the Project Team. It was accepted that the Steering Group was too large for detailed Plan drafting. One possible approach would have been the creation of smaller working group(s) to address specific aspects and develop documents for wider consideration. However, the early failure by the

Steering Group successfully to convene such a sub-group (to consider linkages to terrestrial plans) (see Appendix 3) discouraged the Project Team from further pursuing this approach. Such a structure would also have required additional input from the Project Team to organise meetings and collate outputs.

Lessons Learned

Steering/Advisory groups for marine planning require respected, effective and knowledgeable Chairs and membership should, ideally, be fixed from an early stage.

Project scoping and stakeholder analysis is required to:

- clarify the Group's roles and responsibilities
- identify the correct organisations to be involved while maintaining a workable group size
- identify correct representatives from within these organisations

Meetings need to be well structured with relevant and focused agendas. The use of professional facilitators can be useful when seeking to gather structured information or reach consensus. Meetings should be held at locations or using media that are as convenient as possible for the maximum number of members to access.

Particular consideration may need to be given to appropriate representation and involvement by Local Authorities, particularly where multiple authorities have an interest in a marine plan. In addition to actual representation on Steering/Advisory Groups, early project planning may be required to identify key opportunities for documents to be considered by relevant Local Authority Committees.

Statutory regulators and advisers, including Local Authorities, need to be willing and able to commit sufficient resources to enable their full and appropriate participation in marine planning processes.

Project team

The Steering Group commended the Project Team's positive attitude, dedication, flexibility and overall commitment to the project. However, both the Steering Group and Project Team felt that the number of staff (1.6 fte) attached to the project was inadequate. Such a limited team size also resulted in gaps in skills that would have helped deliver the project. Particular skills that the Steering Group felt the project could have benefited from included greater marine and local knowledge, economic or business experience, delivery of strategic planning, policy development, and GIS. The Steering Group were sometimes frustrated by the amount of time they spent proof reading drafts; this was due to the limited time available for the Project Team to deliver stages of the Plan.

The Project Officer role was to oversee day to day management of the project, to raise additional funds as well as to deliver the Plan and disseminate information to internal and external audiences. In addition, the requirement for an SEA of the Plan had not been recognised in the original project brief and this placed major additional demands on the Project Team's time, which were partially compensated for by additional funding from Scottish Government for external consultants.

The Project Assistant role was originally envisaged as one of administrative support, events organisation, publicity, dissemination and data gathering/collation, however, the individual employed brought additional technical skills (e.g. with respect to SEA) and competencies (eg expertise in marine ornithology) to the project.

The Project Team felt that the grading and salary levels for both the Project Officer and Project Assistant posts were low as compared with similar roles elsewhere (e.g. SEPA RBMP Project Team or Local Authority Planners).

Lessons Learned

Planning teams need to encompass a range of appropriate skills including

- Project management and administration
- Policy analysis and development
- Stakeholder participation and facilitation
- Strategic Environmental Assessment and other assessment tools
- GIS and wider data management
- Knowledge of the operation and economics of maritime sectors
- Knowledge of marine ecosystems
- Knowledge of marine legislation and associated regulatory regimes

Planning teams need to be given sufficient and appropriate (delegated) authority to utilise these skills to make policy decisions. Pay and grading structures should be appropriate to the level of professional skills required and contracts should be structured to promote staff retention through complete planning cycles.

4.3.3 Partnerships

The focus on partnership working provided opportunities for organisations to learn a lot about others' activities and processes and for the Project Team to seek assistance from lead stakeholders. Many partners committed considerable time and effort and the partnership approach provided breadth and depth of stakeholder involvement. The decision by SEPA to leave the local Steering Group following launch of the draft Plan was regretted by other Steering Group members and by the Project Team.

The direct involvement of SEPA and SNH in respectively employing and housing the Project Team between July 2006 and March 2010 was seen as very valuable. This arrangement provided useful autonomy for the Project Team and ensured that no single organisation was seen to be leading the Steering Group and all views were equal. However, despite very good on-the-ground co-operation from both organisations, there were some practical difficulties for the Project Team in being employed by one organisation but housed by another, particularly with respect to some incompatibilities and shortcomings in IT facilities.

Also, for most of the project's lifetime the Project Team's line manager within SEPA was not SEPA's representative on the local Steering Group, and so had limited direct involvement with the project, although he did sit on the SSMEI National Steering Group. While this was not an issue for the majority of the project, it exacerbated the uncertainty and instability associated with changes in partnership priorities and project staffing towards the end of the Project.

Additional expertise in fields such as land-use planning and policy development might potentially have been accessed through Local Authorities, but there were no structures in place either within the project or Local Authorities for such direct engagement (see also 4.3.2).

The Project Team were housed (by SNH) alongside the FoCF Officer. This proved beneficial to both projects and provided staff with opportunities to test ideas and benefit from each other's experience and knowledge. Similarly, the existence of three other SSMEI projects enabled the projects to learn from each other and to trial different approaches to marine planning.

There is an ongoing lack of clarity on who is responsible for the project's documentation and data beyond the initial lifespan of the project.

Lessons Learned

A partnership approach to the development of marine plans brings considerable advantages with respect to autonomy for Planning Teams and access to data and expertise within partner organisations. However, line management and housing arrangements for marine planning teams require careful consideration to ensure appropriate and continuous support for staff and to facilitate access to wider knowledge and skill sets within partner organisations. Clarity is also required with respect to which organisation(s) are ultimately responsible for information and data management and where project documents and data should be held or archived.

4.3.4 Resources

The Steering Group believed that, given the size of the Project Team (see section 4.3.2), the overall level of financial support provided by the partners was largely sufficient. However some 40% of the final budget was funding additional to that originally committed (see Table A2.1). The Project Officer's success in bidding for additional funding was crucial with respect to a number of major elements, which had not been included in the original proposal and subsequent funding package, including: SEA; review of biodiversity; and, design and print costs. This highlights the desirability of early scoping of resource requirements (see section 4.2).

The Steering Group also felt that the Project Officer had managed the project finances well. Some members questioned whether the consultants employed provided good value for money and wondered whether some of these funds might have been better directed towards employing additional staff within the project. Some of the work contracted out might potentially have been undertaken within a larger and suitably skilled Project Team (see section 4.3.2), but there was no scope within the project remit for employment of additional staff members. Also, much of the work contracted out required high levels of expertise in specialist areas, which would have been difficult to assemble within a small team (see also section 4.1). For example, the Biodiversity Review project undertaken by MarLIN involved eight personnel with specialist knowledge in several key areas.

The in-kind support from SNH, SEPA and GCVSPJC were recognised by all as important to the project. However, as alluded to in sections 4.3.2 and 4.3.3, some opportunities were perhaps missed to formulate what other resources might potentially have been contributed by partners (e.g. access to planning or GIS expertise).

Lessons Learned

Resourcing of marine planning needs to be sufficient from the outset of the development of each plan to support both a full range of core skills (see section 4.3.2) within planning teams and/or partner bodies as well as particular specialist data gathering requirements (see also section 4.3.5).

4.3.5 Data and information

The generic problems associated with availability of and access to marine data have been well documented elsewhere and issues of data accessibility and sharing are subject to a number of UK initiatives such as MEDIN and DASSH. The Project Officer was actively involved with the MEDIN project, which in part is looking to develop a national dataset for marine planning

Generic marine data issues are not revisited in detail here, but can be categorised as follows:

- No (known) data available
- Data exists but unavailable to or unsuited to project because of:
 - Cost; and/or
 - Format and/or resolution; and/or
 - Unwillingness of external bodies to share data; and/or
 - Inadequate meta data to enable use of data

It proved particularly challenging to access appropriate data for a project at the scale of the Firth of Clyde. The resolution of various international or national marine data sets (e.g. MESH seabed habitats or ICES fisheries statistics) is too coarse to be useful to marine planning at a regional level whereas some other more localised data sets (e.g. MNCR) are difficult to apply to strategic marine planning (as opposed to project level decision making). In addition, much of the relevant coastal data is held by individual Local Authorities or other agencies and proved difficult and costly to compile across the Firth as a whole.

The main marine dataset, which is broadly equivalent to the Ordnance Survey base dataset, is Seazone's Hydrospatial Dataset. Licenses for this dataset are extremely costly. The SSMEI Clyde project was able to access this dataset in the first instance through SNH's license and latterly through SEPA's license, but this option may not necessarily be available to future SMRs, particularly where there is a requirement for ongoing use of the data.

The Steering Group felt that the Project Team, within the available resources and with assistance from external consultants, made considerable progress in gathering data, identifying data gaps and identifying other potential data sources not yet accessed. The Project Officer was supported by the relevant agencies in terms of time and money when the need for new data gathering projects was identified. A lot of data were gathered that can be used in the future, but some data gaps identified by the project have yet to be filled and these constrained Plan development.

In the first 6 months of the project, the Project Team met on a one to one basis with key data holders (including SEPA, SNH, Crown Estate, Historic Scotland, FRS, Clydeport and Seazone) to discuss what data they held and accessibility issues. However, the Steering Group felt that overall there was inadequate consultation with stakeholders on data held.

Lessons Learned

Relevant data on habitats, ecosystems, environmental status, economic and other activities and social factors are essential to support evidence based marine spatial planning. The availability of such data at appropriate resolutions to support regional marine planning is currently very limited as compared with data available to terrestrial planners.

Data collection and management should focus on key areas and issues and should be undertaken early in the planning cycle. Sufficient resources need to be available to enable collation and digitising of data not already in suitable formats.

The cost of licences for Seazone data is very high. These either need to be budgeted for from the outset of a marine planning process and/or, as in Shetland, the same data accessed from the original sources. This latter approach may require additional specialist skills within planning teams and/or marine Scotland at the outset but is potentially more robust with respect to ongoing use and analysis of key data (see also section 4.1).

4.3.6 External Policies and Strategies

The timing of the Clyde Pilot has been fortuitous in relation to the development of key external policy drivers including EU Marine Strategy Framework Directive and the Marine (Scotland) Bill. In particular, the Pilot is considering lessons learned at a perfect time for debate on SMR structure. The SSMEI pilots have permitted greater flexibility and opportunity to make and learn from mistakes than would be possible or desirable under a statutory marine planning system.

However, this timing also means that the Pilot has operated largely in the absence of a clear understanding of what the content of the Scottish Marine Bill would be and without reference to a National Marine Plan for Scotland or UK Marine Policy Statement. These documents will be available to Planners developing statutory regional marine plans, but careful consideration will be required to balance the desire to develop local approaches to addressing local issues and opportunities with the need to maintain consistency of approach at national and international levels. This is of particular concern to interests such as Scottish Water.

It proved difficult to arrive at a consistent understanding of the ecosystem approach and how this might be applied to marine planning. In an effort to stimulate further debate on this, and to assist future production of guidance for marine planners, the Project Assistant acted as co-supervisor to an MSc dissertation on this topic (see Appendix 4)⁵.

⁵ Williamson, A. (2009) How can the Ecosystem Approach be applied to Scottish (Regional) Marine Planning? Dissertation submitted to University of Strathclyde in 2009 in support of an MSc Environmental Studies.

The development of coherent policies within the Plan with respect to biodiversity conservation was hindered by the absence of clear national policy guidance on this aspect from SNH and others. This related both to identification of which marine species and habitats are regarded as priorities for action at Scottish national and regional levels and to which mechanisms (e.g. creation of protected areas or other measures) should be applied to their safeguard. This is radically different from the policy framework for biodiversity protection within which land use planners are required to operate.

The relationship between marine and strategic or local terrestrial development plans is unclear. Terrestrial planning authorities and others broadly welcomed the linkages recognised in the draft Plan with other types of Plan, including terrestrial development plans. However the mechanisms whereby such linkages could be implemented need more exploration (see also section 4.3.3). The draft Plan sought to take account of existing coastal policies within relevant terrestrial Plans where these did not directly conflict with its high level aims, objectives or guiding principles. However, there was no clear process by which terrestrial planning authorities might be required or able to take account of or implement strategic regional marine planning policies.

Several respondents suggested that boundaries of future SMRs should coincide with those for other key management tools, including RBMP and IFGs.

Lessons Learned

There is currently no mechanism by which strategic marine plans may readily be meshed with terrestrial plans, particularly within areas such as Firths where multiple local authorities have an interest in the surrounding coastline. A clear governance structure for the delivery of marine spatial plans needs to be provided by Marine Scotland within which the relationship between marine and terrestrial plans, including RBMPs, and between IFGs and marine planning partnerships needs to be clarified.

Regional Plans should be developed within the context of a national Marine Plan for Scotland. Coherent and nationally consistent regional marine plans cannot be developed in isolation or in the absence of clear national policies with respect to key sectors and the safeguard of the natural and historic marine heritage. In this context, the role of marine planners with respect to establishment of Marine Protected Areas and/or application of other measures for safeguard of marine biodiversity, requires clarification.

5 RECOMMENDATIONS FOR STATUTORY MARINE PLANNING

These recommendations are for the long-term future development of regional marine plans once Scottish Marine Regions are established.

Scottish Regional Marine Plans

- The scope, remit and overarching objectives of Plans for SMRs need to be clear from the outset. This should be co-ordinated at a national level to ensure consistency between Plans and should be informed by the National Marine Plan.
- Marine Plans should focus on delivery of sustainable development of maritime activities
- The relationships between statutory Marine Plans and mechanisms for the management of the marine environment (e.g. RBMP) and resources (e.g. IFG) need to be clarified
- Marine Plans should not be sectorally based
- Regional Marine Plans should be sufficiently spatial to provide useful locational guidance for developers and regulators, but should not be overly prescriptive.
- Exclusive zonation for particular interests/activities should not be the norm. However, when developing policies, it may be appropriate to divide SMRs into smaller planning units having distinctive characteristics and/or to develop sub-regional plans for particularly busy or sensitive areas.
- Regional Marine Plans should primarily be policy documents supported in their application to project-level decision making by bespoke web-based GIS

Planning Process

- A project scoping exercise should be undertaken as the first element in developing a marine plan and resource requirements identified
- Data gathering should be focused on key areas and issues to support evidence-based policy development, identify critical data gaps, and enable resources and effort to be targeted effectively
- The knowledge and experience of stakeholder groups should be explored and incorporated from the beginning of a project.
- A consultation strategy should be developed at the outset of the planning process and should include early consultation on Issues and Opportunities
- The matrix-based approach to gathering and presenting information on interactions should be further elaborated as a marine planning tool
- Marine Planning should be underpinned and informed by SEA and other policy option assessment tools

Structures

- Ownership of the planning process needs to be clear from the outset and should be underpinned by written guidance from Marine Scotland. The respective roles and responsibilities of Planning Teams, Project Partners and any Steering, Advisory or other formal Stakeholder Groups need to be clearly defined and understood.
- Stakeholder analysis is needed to determine the optimal membership and structuring of Steering, Advisory or other formal Stakeholder Groups. Such Groups require strong, committed and neutral Chairs whose responsibilities should be clearly defined within a job description.
- Planning teams need to be given sufficient and appropriate (delegated) authority to make policy decisions when drafting plans
- A clear governance structure for the *delivery* of marine spatial plans is required
- Marine planning teams should be housed by agencies and at locations which minimise the danger of perceived bias and which facilitate coverage and engagement of stakeholders across the whole SMR.
- Particular consideration is required of appropriate representation and involvement by Local Authorities in Marine Planning Partnerships, particularly where multiple authorities have an interest in a single marine plan
- The provision of regionally based secretariat facilities might assist effective management of meetings for stakeholders involved in multiple regional fora such as Marine Planning Partnerships. RBMP Advisory Groups and IFGs.

Guidance

- Marine Planners require guidance on how statutory marine and terrestrial plans relate.
- Marine Planners require guidance on application of the Ecosystem Approach (see Appendix 4)⁵
- Marine Planners require guidance on national and regional priorities for conservation of marine biodiversity and clarification of their role with respect to delivery of these priorities through designation of Marine Protected Areas and/or other measures.

Resources

- Statutory regulators and advisers, including Local Authorities, need to be willing and able to commit sufficient resources to enable their full and appropriate participation in Marine Planning and implementation; prioritised actions need to be embedded into the business and corporate plans of stakeholders
- Resourcing needs to be sufficient from the outset of the development of plans to support both core skills within planning teams and specialist data gathering requirements (particularly for the first round of plans)

- The production of regional spatial plans requires access to the following skill sets: project management; policy analysis and development; SEA and other assessment tools; stakeholder engagement; data collation, analysis and management including GIS; administration; and, marine knowledge including ecosystems, sectors and legislation/regulation. The Project Team consider that this would involve the equivalent of 6fte staff over three years.
- Recruitment and retention of suitably qualified staff within planning teams requires appropriate employment terms and line management arrangements
- There should be national co-ordination of marine data collection, formats and management. Marine Scotland should consider housing a specialist marine data and GIS team to support regional marine planning teams.

6 APPENDICES

APPENDIX 1 Membership of SSMEI Clyde Pilot Steering Group

Argyll & Bute Council	Historic Scotland
Ayrshire Joint Planning Steering Group	HMNB Clyde
British Marine Industries Federation, Scotland	Lighthouse Caledonia Ltd
Caledonian Maritime Assets Limited	Queen's Harbour Master Clyde
CalMac Ferries Ltd	Royal Society for the Protection of Birds
Clyde Fisheries Development Project	Royal Yachting Association Scotland
Clyde Fisherman's Association	Scottish Coastal Forum
Clydeport Harbour Master	Scottish Creelers and Divers (SCAD)
Clydeport Operations Limited	Scottish Enterprise
Economic, Planning & Environmental Services	Scottish Government Marine Management Division
Firth of Clyde Forum	SEPA
FRS Marine Laboratory	SNH
Glasgow and Clyde Valley Structure Plan Joint Committee	Strathclyde Passenger Transport
Glasgow City Council	The Crown Estate
	University Marine Biological Station

APPENDIX 2 SSMEI Clyde Pilot Budget

Table A2.1 Project Income

Initially Agreed Funding

Organisation	Originally Agreed Contribution	Amounts paid to project			
		Yr 1	Yr 2	Yr 3	
Scottish Government	146,751	68,751	47,750	30,250	146,751
SNH	37,500	12,500	12,500	12,500	37,500
Leader Plus	16,000 ^a		10,548 ^b		10,548
SUB-TOTAL	200,251	81,251	70,798	42,750	194,799

Additional Funding

		Yr 1	Yr 2	Yr 3	
Scottish Government		12,500 ⁷	39,000 ⁸	13,500 ⁹	65,000
SNH		40,000 ¹⁰		17,391 ¹¹	57,391
SEPA		10,548			10,548
SUB-TOTAL	-	63,048	39,000	30,891	132,939
TOTAL	200,251	144,299	109,798	73,641	327,738

In addition to the cash income provided by partners, the project also received in-kind contributions over the initial three years of: £23,525 from SNH (for housing project officers), £24,000 from SEPA for line management, payroll and other costs associated with acting as employer of project officers and £5178 from GCVSPJC for finance administration costs.

⁶ Initial bid was for £16,000 but final eligibility was £10,548

⁷ £10,000 for SEA; £2,500 for Chair

⁸ £10,000 for sectoral workshops; £12,000 for Plan design and print; £8,000 for Plan consultation events; £6,000 for additional publicity materials/ reporting; £3000 for Chair costs

⁹ £1,000 overtime payments; £1,500 Chair (5 additional days); £1,500 additional meeting expenditure; £1,500 additional leaflet costs (Freepost); £5,000 additional design and print costs of Plan and SEA; £3,000 microsite

¹⁰ Biodiversity Review Phase I

¹¹ Biodiversity Review Phase II

Table A2.2 Project Expenditure

	Project Years (July-June)				Total	Sub-totals	% of total
	2006 / 07	2007 / 08	2008 / 09				
CORE COSTS							
Project team (Salaries, T&S; training, conferences)	42076	51541	54418	148035			
Steering Group (meeting rooms hire, chair costs)	3130	3000	6824	12954			
					160,989		60%
EQUIPMENT & MATERIALS							
Laptop, software licences, charts etc	2769	0	300	3069			
DISSEMINATION							
General (production and dissemination of publicity materials, website design etc)	0	6253	5950	12203		3,069	1%
Design and print of draft Plan and SEA NTS	0	0	18110	18110			
Launch Event (Tall Ship)	0	0	4320	4320			
Design, print and distribution of consultation leaflets			4120	4120			
					38,753		14%
STAKEHOLDER ENGAGEMENT							
Facilitated Workshops	1058	0	13525	14583			
draft Plan consultation events (room hire etc)			3200	3200			
						17,783	6%
INFORMATION GATHERING							
Data trawl	94	0	0	94			
Habitat Map	0	12620	0	12620			
Socio Economic Review	0	15000	0	15000			
Seascape/Landscape Study	0	0	2520	2520			
Review of Biodiversity	0	317	19290	19607			
						49,841	18%
TOTALS	49127	88731	132577	270435	270435	270435	

APPENDIX 3 Project Process Timeline

The SSMEI Clyde Process chart sets out a time line for the Activities and associated Projects and Outputs undertaken by the project team and external consultants. It also summarises topics discussed at Steering Group meetings and key decisions taken. Substantive action points and their follow through are also summarised. Within the process chart, key project Outputs are highlighted in bold.

The Activities covered are: Information and Data Gathering; Plan Development; Strategic Environmental Assessment (SEA); Stakeholder Engagement; Dissemination; Project Management and General Reporting.

Within these Activities, key Projects and associated Outputs include: Environmental Baseline Report; Socio-Economic Review; Review of Biodiversity; Seabed Habitat Mapping; Landscape/Seascape Assessment; GIS Data Collation; development of a Project Reference Database; SEA Scoping report; SEA Environment Report; MSP Conference and Workshops; Sectoral Interactions Study; facilitated Sectoral Workshops; Public Consultation on the draft Plan; establishing Project Identity (including logo and website); and, various inputs to bodies working on the development of marine management in Scotland and the Marine (Scotland) Bill (e.g. SSTF workshops; RAEC; Marine Scotland). Project management activities, including management of external contracts and project finances and reporting to sponsors were ongoing throughout.

For ongoing tasks/projects, the arrows give a rough indication of work intensity

People:

JED: John Eddie Donnelly (Project Officer, 22 June 2006 - 4 September 2009)

KT: Kate Thompson (Project Assistant from 22 June 2006)

DR: David Ross, SEPA Marine Science (allocated to project c. 1 day per week from July 2006 to March 2009)

IG: Isabel Glasgow (Steering Group Chair c.12 days per year)

Abbreviations:

AGMACS: Advisory Group on Marine and Coastal Strategy

BMF: British Marine Industries Federation

CAs: Consultation Authorities

CFA: Clyde Fishermen's Association

ERDC: Environment and Rural Development Committee

RAEC: Rural Affairs and Environment Committee

SG: Steering Group

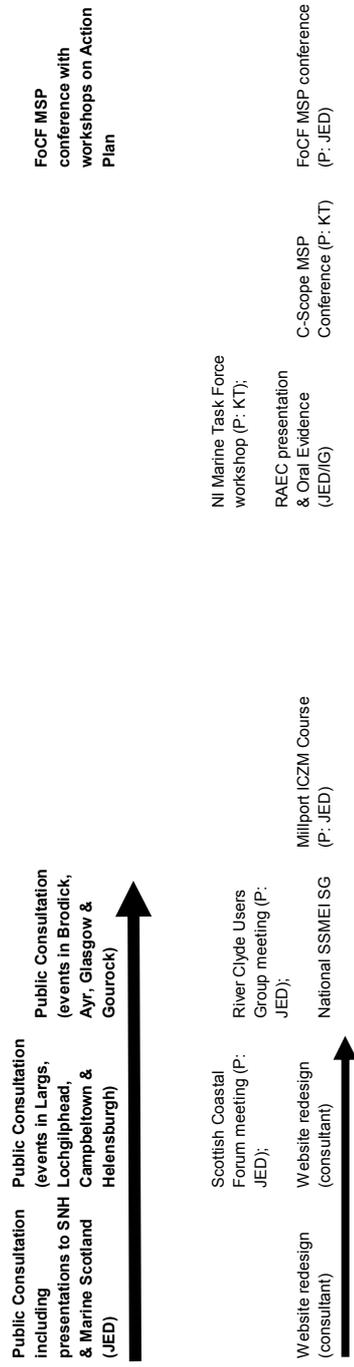
SSTF: Sustainable Seas Task Force

2009 April 2009 May 2009 June 2009 July 2009 August 2009 September 2009 October 2009 November

MSc dissertation on Ecosystem Approach



Draft Appropriate Assessment



**Steering Group Activities
ACTIVITIES, PROJECTS AND
OUTPUTS**

2006 July	2006 August	2006 September	2006 October	2006 November	2006 December	2007 January	2007 February	2007 March	2007 April
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Meetings (attendees)

X (14)	X (12) plus SEA sub-group meeting								
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Key Topics Discussed

Marine Spatial Plan (Scale, landward boundary; sectors & interactions; SD; timeframe;	SEA options;								
SD Indicators;	Decision-making mechanisms;								
Functioning of SG (proposal for sub-groups)/ stakeholder engagement	Sectoral Planning /Integration								

Key Decisions / Conclusions

Establish time-limited sub-groups to consider particular issues (e.g. data gaps) and report back to main group/project team. Co-opt additional members as and when appropriate.	Undertake SEA (on proviso that additional funding provided)								
	Reschedule Decision Support Tool to 2nd half project								None

Key Action Points and Outcomes

JED/KT to devise and circulate questionnaire to steering group for purposes of assessing which data sets are held by whom and in what format; gathering information to enhance understanding of how decision making mechanisms currently operate;									
NOT DONE: SECTORAL INTERACTIONS STUDY AND WORKSHOPS USED TO GATHER THIS INFORMATION									
IJ and RG to convene a sub-group to consider how a MSP might link to local and structure plans;									
NOT DONE									
ZC, RO, JED and KT to develop revised and more appropriate indicators for the decision-making and conflict resolution aspects of the project and steering group to agree final set of project SDIs by conclusion of next meeting (7 December);									
NOT DONE; SUPERSEDED BY SEA PROCESS									
									JED to discuss with Steering Group members a process of implementation of the LMSP for their organisations & AP3.2 Document to be produced and information day organised for elected representatives;
									THIS WAS FURTHER DISCUSSED WITH FOOF IN FOLLOWING QUARTER WITH IDEA OF RUNNING WORKSHOP IN JULY OR THE AUTUMN BUT WAS NOT CARRIED THROUGH

Steering Group Activities

	2007 May	2007 June	2007 July	2007 August	2007 September	2007 October	2007 November	2007 December	2008 January	2008 February	2008 March	2008 April	2008 May
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Meetings (attendees)

X (9) X (9)

Key Topics Discussed

Socio-economic review;
 Consultation process for draft Clyde Plan;
 SEA strategic alternatives;
 Appropriate Assessment;
 Draft environment baseline report

Vision and Aims;
 Sectoral subgroups

SEA scoping report;
 Progress with external contracts (include ERT presentation)

Key Decisions / Conclusions

Agreed Vision Agreed aims by e-mail
 Approved change from Local MSP to MSP
 Agreed consultation process for draft Plan (later revised - see March 2009)

Key Action Points and Outcomes

JED/KT to identify and contact potential sectoral sub-group chairs & AP 6.2 JED/KT to prepare and circulate background documents, including draft layout of a sectoral plan to sectoral sub-groups;
 ALL TO SUBMIT COMMENTS ON SEA OF STRATEGIC ALTERNATIVES BY 2 APRIL 2008 AND ALL TO SUBMIT COMMENTS ON DRAFT ENVIRONMENT BASELINE REPORT BY 16 APRIL 2008;
 NO COMMENTS WERE RECEIVED BY TIME OF FOLLOWING MEETING OTHER THAN BY SNH, SEPA AND HISTORIC SCOTLAND IN THEIR ROLE AS STATUTORY SEA CONSULTEEES
 SEVERAL COMMENTS SUBMITTED ON BOTH DOCUMENTS PRIOR TO FOLLOWING MEETING

Steering Group Activities

	2008 June	2008 July	2008 August	2008 September	2008 October	2008 November	2008 December	2009 January	2009 February	2009 March	2009 April
Meetings (attendees)	X (14) Proposal for LAMIs;	X (16) Briefing to FoCF	X (17) Methodology for Plan & Policy development; Overarching strategy; Ecosystem Approach paper; Activities diagrams Agreed timetable for Plan development for launch end Feb 2009;	X (15) Review of Biodiversity report; Draft: Background and Context and Framework; Draft cross-cutting policies	X (14) X(12) Draft Plan design; Sectoral Interactions & SEA summaries in Plan; draft sectoral Plans; draft implementation schedule	X(11) draft Plan, esp. implementation schedule; launch and consultation;					
Key Topics Discussed	Proposed launch & consultation leaflet; SEA update; Sectoral Workshop reports; Overarching strategy	Preliminary draft FoCMSP	IG to undertake PR with Councils ahead of launch; Change from "strategy" to "Framework"	Postpone launch to March 2009	Parts 1,2 &3 initially signed off, but then revisited at 2nd meeting with further revisions requested	agreements that draft Plan should proceed to the public consultation phase; changes to proposed consultation process					
Key Decisions / Conclusions	Draft Plan to be circulated to SG in August	Postponement of Plan launch; need to include set of operating principles	All to e-mail JED with examples of terminology used elsewhere to encapsulate key elements in the guiding principles such as "responsible use of resources"; NO SUGGESTIONS WERE SUBMITTED	All to e-mail any further comments on the Ecosystem Approach paper to JED by 25th November.;	SEVERAL HELPFUL COMMENTS WERE SUBMITTED	At the first meeting there were 8 action points for SG members and at the second 7 seeking assistance with (re)wording of parts of the Plan;	(all): to provide ideas and support to the project team with respect to development and implementation of a Plan consultation strategy; SOME SUPPORT SUBSEQUENTLY PROVIDED ON REQUEST E.G. WITH RESPECT TO BOOKING VENUES				
Key Action Points and Outcomes		All to pass further comments on the first draft FoCMSP to JED by 25 August 2008; GOOD RESPONSE RATE									

Steering Group Activities

	2009 May	2009 June	2009 July	2009 August	2009 September	2009 October	2009 November
Meetings (attendees)					X (13)		Lessons Learned Workshop

Key Topics Discussed

Project staffing & work programme;
Draft consultation report

Key Decisions / Conclusions

Lessons learned to be priority;
Plan revision limited in 1st instance

Key Action Points and Outcomes

How can the Ecosystem Approach be applied to Scottish (Regional) Marine Planning?

Author: Alana Williamson
February 2010



Summary of Key Findings

Background

The 1992 Convention on Biological Diversity describes the Ecosystem Approach as 'a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way'. It is a framework for assessing biodiversity and ecosystem services, and evaluating and implementing potential management responses. The approach has been further elaborated in a set of 12 'Malawi' principles (see text box).

The Marine (Scotland) Bill, as introduced to the Scottish Parliament on 29th April 2009 will, when enacted, provide a statutory requirement for marine planning at both national and regional levels in Scottish waters. The Bill endorses an Ecosystem Approach to marine planning and management, in line with the requirements of the European Marine Strategy Framework Directive.

The Ecosystem Approach (Malawi) Principles

1. The objectives of management of land, water and living resources are a matter of societal choice
2. Management should be decentralised to the lowest appropriate level
3. Ecosystem managers should consider the effects (actual or potential) of their activities on adjacent and other ecosystems
4. Need to understand and manage the ecosystem in an economic context
5. Conservation of ecosystem structure and function to provide ecosystem services should be a priority
6. Ecosystem must be managed within limits of their functioning
7. The approach should be taken at the appropriate spatial and temporal scales
8. Process and objectives for ecosystem management should be set for the long term
9. Management must recognise that change is inevitable
10. Seek the appropriate balance between integration, conservation and use of biodiversity
11. Decision-making should consider all forms of relevant information (scientific, indigenous and local)
12. Involve all relevant sectors of society and scientific disciplines

Research Project

This research investigated how the Ecosystem Approach might potentially be applied to planning within Scottish Marine Regions (SMRs). It examined Ecosystem Approach criteria for the marine environment and methods for their application.

The research proposes an integrated framework to guide regional planners, based on an existing framework used by the Helsinki Commission (HELCOM) and two environmental models, the Driving forces-Pressures-State-Impacts-Response (DPSIR) Model as adopted by the European Environmental Agency, and the Oslo-Paris Commission (OSPAR) Ecological Quality Objective (EcoQO) Model. This framework is supported by a structured method of application based on guidance published by the International Council for the Exploration of the Sea (ICES). The research also considers the institutional capacity required to translate the proposal from a high-level framework to more specific guidance.

Key Points

- To apply the Ecosystem Approach to the long-term management of activities and resources through marine planning, the process must:
 - consist of co-ordinated environmental and socio-economic objectives;
 - be based on an integrated decision-making system that has strong stakeholders participation;
 - be supported by adaptive management approaches, with monitoring, and research and development.
- There are a number of key issues that require further attention in order to produce more specific guidance for policy-makers:
 - Directional guidance on key policy areas e.g. biodiversity conservation
 - Definition of 'Good Environmental Status'
 - Ecological Capacity and Cumulative Effects
- There will also be a need to develop co-ordinated capacity among key agencies to support integrated monitoring and adaptive management.

Application Framework

Figure 1 identifies the proposed Ecosystem Approach Application Framework, and associated stepwise process of implementation. The framework is intended to allow development of strategies that balance conservation and sustainable use within a Marine Planning context.

The Vision describes the overall ambition and desired outcome for the marine environment.

Strategic Goals would be used to define major themes deemed important to ecosystem integrity. Ecological Objectives describe central characteristics of a healthy ecosystem.

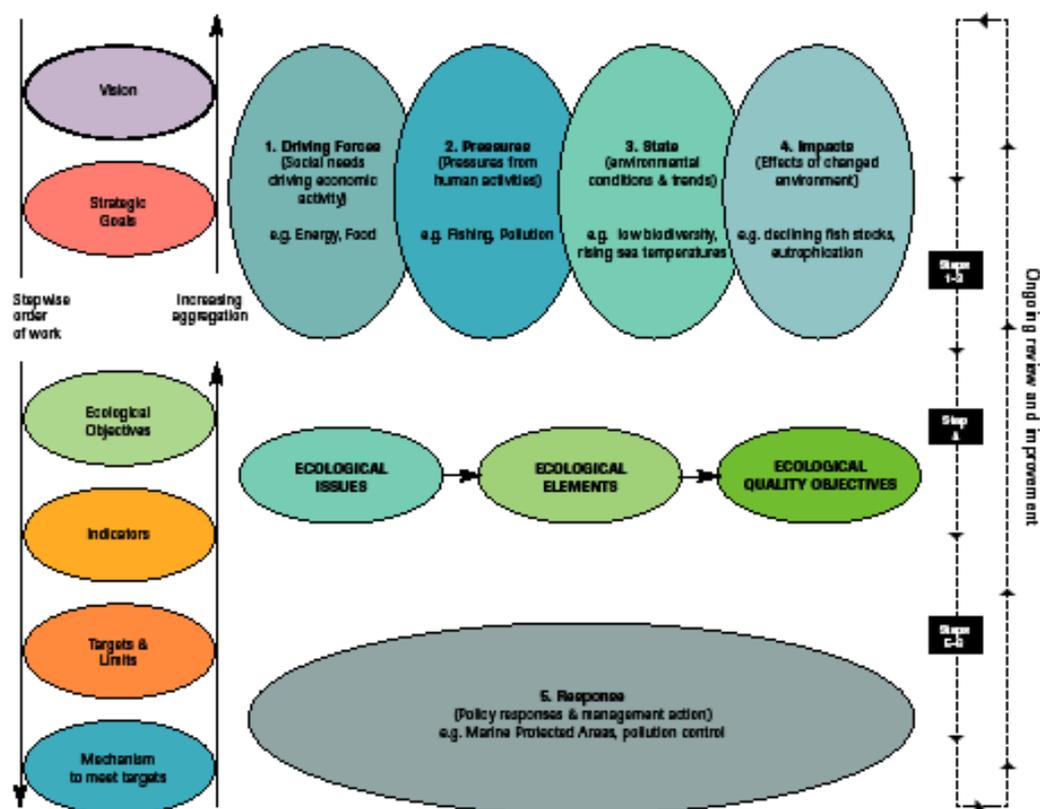
Indicators of ecosystem status provide a method of monitoring progress and must be accompanied by Targets which define the indicator value, and represent acceptable deviation from reference levels. Progress to achieving the Vision would be monitored by deviation from Targets, and therefore Specific Management Mechanisms that can be initiated to implement change where required are attached to each objective.

Two models have been identified that would provide guidance on how to achieve each of the hierarchical levels in the framework: the DPSIR Model and the OSPAR Ecological Quality Objective (EcoQO) Model.

DPSIR Model: This model aims to develop a robust system for marine environmental data management. Systematic consideration of issues ensures that important matters are not overlooked. The model seeks to identify and build links to human activities and the associated impacts on the environment, with the aim of developing appropriate management plans to minimize impacts.

EcoQO Model: This model provides additional guidance for translating the analyses carried out under the DPSIR model, into quantifiable ecological objectives that can direct policy.

Figure 1: Proposed Ecosystem Approach Application Framework and stepwise process of implementation.



Operational Guidance for Implementing the Proposed Framework

Step1: Scope the Current Situation:- compile information that will inform development of policies that seek to achieve 'Good Environmental Status' (GES).

Step2: Contrast with the Vision:- provides the basis for development of strategic goals and effective policies and management measures. The involvement of a range of stakeholders in defining the vision is central to the application of the Ecosystem Approach. At a regional level the vision should be drafted by the regional planning authority and consulted on prior to a final vision being adopted.

Step3: Identify Important Ecosystem Properties and Threats:- complete a comprehensive cross-analysis of the ecosystem properties that determine 'GES'; and issues regarding status, against major human activities impacting the marine environment. This will identify major threats to ecosystem status, as well as where additive or synergistic impacts of human activities may occur, so highlighting areas requiring higher priority management or more detailed sub-regional planning. Statutory advisors, regional planning partnership members and the wider stakeholder audience should be consulted on the outcome of such analyses, to ensure that both ecological scientific reasoning and societal values direct policy.

Step4: Setting Operational Ecological Objectives:- this is central to the compatibility of ecological management and sustainable development. SMRs should have objectives that are complementary to national level objectives, taking into account regional characteristics. They should be realistic in number to allow coherent and integrated management, and should be based on major ecosystem components. They should give consideration to existing long-term monitoring programmes to improve the robustness of analyses.

Step5: Ongoing Improvement, adaptive management:- a precautionary adaptive management system should support policy on areas in the marine plan where 'unknowns' are identified. It would achieve this by attaching precautionary measures appropriate to the level of information available. The application of these measures would be informed by the findings of a monitoring programme. Adaptive management systems are also necessary for consideration of natural dynamics, and to assess the effectiveness of management strategies where 'uncertainties' are less of an issue.

Step6: Periodic Reviews:- This will allow new scientific knowledge, ongoing changes in ecosystem status and changing societal needs to be incorporated, and ensure that strategic goals remain relevant and fit for purpose. This step is therefore directly linked to step 5, and should be an in-built component of the monitoring programmes for adaptive management strategies.

Key Challenges

This section sets out key challenges to implementing the proposed framework and proposed solutions to these.

Directional Guidance on Key Policy Areas

In order for sustainable economic development to take place, there must be a common understanding of conservation objectives in Scottish waters. Guidance should be provided by Marine Scotland, with proactive inputs from key advisory agencies such as SNH.

Regional planners should be provided with a set of criteria on which to base policy developments that will ensure that regional analyses give appropriate consideration to priority ecosystem components.

Defining 'Good Environmental Status' (GES)

There is no overarching concept of what 'good environmental status' (GES) is for the marine environment. Without clarification of this concept, regional planners may struggle to develop and implement sustainable marine management to achieve GES.

To ensure consistency of status determination within and between ecosystems, the development of Marine Ecosystem Objectives at the national level needs to be translated to the regional level. This should include clarification of what are realistic ecological references, or baseline status points at various management scales and will require input from key advisory bodies such as Marine Scotland and SNH.

The Role of Strategic Environmental Assessment (SEA)

SEA plays a central role in the application of the Ecosystem Approach. The synthesis of information required in step 1 will be achieved by the baseline scoping stage of the SEA. SEA will also be useful to inform discussions in step 2 to achieve consensus on the Vision, by providing alternative scenarios for the region. Furthermore, SEA will support and enhance the application of the Ecosystem Approach by ensuring that mitigation and enhancement proposals are incorporated in the Plan, and will assist in the identification of an appropriate and comprehensive monitoring system.

Ecological Capacity and Cumulative Effects

Central to ecosystem-based marine spatial planning is consideration of the overall ecological capacity of a planning area and adjacent affected areas. In order for cumulative effects to be fully considered, policy development should be directed by reference to integrated ecosystem limits, rather than sector specific limits. This is challenging, and requires knowledge of all impacts. Work will also be required to determine overall limits that should not be breached and should be linked to work carried out for setting Marine Ecosystem Objectives. Guidance for regional planners will be required from Marine Scotland, to ensure that the cumulative effects of all Scottish Marine Regional Plans do not breach the overall carrying capacity of the Scottish marine environment.

Integrated Monitoring

Implementation of an effective monitoring system requires sufficient and appropriate institutional capacity to enable an integrated approach including information sharing, and the translation and communication of scientific knowledge to support policy decision-making. Efforts will be required to identify how such an integrated approach might work in practice, and will require co-ordination and co-operation from various bodies (Marine Scotland, SNH, SEPA, JNCC, Regional Planning Partnership Stakeholders).

There is often more than one possible indicator for each objective. The choice of indicators must facilitate a comprehensive review of the region, and should primarily be chosen on their ability to provide the necessary information for management decisions, rather than for convenience. Advice from key advisory bodies (Marine Scotland, SNH, SEPA, JNCC) will be necessary to ensure that efficient and effective monitoring programmes are put in place to achieve GES.

Conclusions

This research provides an integrated method by which the Ecosystem Approach can potentially be applied to Scottish (Regional) Marine Planning. It has also highlighted that currently there are many 'uncertainties' that present practical difficulties in producing Regional Marine Plans that fully endorse the Ecosystem Approach.

In this context marine planners will require the development, by Marine Scotland and associated agencies, of 'ground-level' guidance on topics including: key marine policy areas; definition of GES; and ecological capacity and cumulative effects. Such guidance will provide a basis for proactive Ecosystem Approach management strategies.

With the first Scottish Marine Bill reaching Royal Assent, there are opportunities for Marine Scotland, and other key advisory bodies, to work with Regional Planning Partnerships, to translate work being conducted at the National and European level, into useful guidance for Regional Planning. The development of such guidance will ensure consistency in the application of the Ecosystem Approach to planning and management of the Scottish Marine Environment.

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