

THE SUSTAINABLE SCOTTISH MARINE ENVIRONMENT INITIATIVE
Workshop of 19.03.03
Summary of proceedings

Welcome. Jane Dalglish – Head of Wildlife and Habitats Unit, Scottish Executive.

The *Sustainable Scottish marine environment initiative*, was placed in context with a number of current marine initiatives in the UK. This initiative has a particularly Scottish flavour and will seek to define options for future management and the achievement of sustainability.

The Sustainable Scottish Marine Environment Initiative. Peter Irving – Wildlife and Habitats Unit, Scottish Executive

This study is phase one of a three-phase initiative to investigate sustainable management of the marine environment. The impetus for the initiative comes from a desire within Scotland to respond strategically to issues raised by recently (2002) proposed changes to nature conservation legislation in England and Wales, under the failed Marine Wildlife Conservation Bill (widely known as the Randall Bill).

A Sustainable Scottish Marine Environment. Professor Bill Ritchie – chair of expert panel.

Lots of work has already been undertaken in the area of marine environmental management in Scotland, not least of which, that of the Scottish Coastal Forum. This study will gather and distil information from previous studies and try to identify gaps in knowledge and current management in the context of achieving marine sustainability. Today we want to listen to your thoughts and suggestions.

Possible definitions of the marine environment and coastal zone have been considered. Important that the coastal zone isn't defined using arbitrary criteria (for example distance to shore). Rather, it's suggested that we use a broad definition of the area of the marine environment as the area where the majority of interactions between man and the marine environment, and those between different users of the marine environment, occur.

The marine environment can also be divided up in a number of ways, however, for the purposes of this study the following divisions are suggested:

- The surface;
- The water column;
- The surface of the seabed;
- Within and below the seabed.

It's important to realise that there is unlikely to be one 'recipe' for sustainability in the marine environment and there may be a number of different solutions for different regions and areas. We must keep in mind that the outcomes of this and related studies may have an effect in the future upon how coastal communities support themselves, both economically and socially. It will be important to balance 'historic' conservation values against social and economic considerations

A number of points are suggested for consideration:

- There may be parts of Scotland's marine resource which are in need of restoration, rather than just conservation. A current example might be the fisheries resource;
- The definition of the precautionary principle used in future management may benefit from further debate; and
- Sustainable development and an ecosystem approach, are both concepts which should contribute to the management of economic resources

At the end of this study we must propose a series of pilot studies which can be used later to test the thinking developed during this study.

Mark Jennison – BMT Cordah Ltd

This study is an opportunity for the development of new strategies and concepts for management of the marine environment in Scotland. It is hoped that today's seminar will allow an opportunity for a wide range of contributions in a number of areas of expertise. This study will involve the following elements:

- Review of current knowledge and collation of GIS datasets;
- Comparative analysis between various marine environmental management projects in geographically equivalent areas;
- Rationalise 'blue sky' thinking from a range of sources including responses to a discussion paper, meetings with stakeholders, and responses to an online questionnaire;
- Development of a website to raise awareness of the project, and the issues under discussion;
- The development of a framework for sustainability in the Scottish marine environment; and
- The design of a number of pilot studies to test thinking developed during this phase of the study.

By the 4th of May this study will report on each of these elements.

Questions

Colin Wishart – The Highland Council (THP)

- Will the focus of the study be on 'fragile' communities or it was felt that all coastal communities were fragile?
- Will there be 'positive' discrimination in favour of such communities during the study?

Bill Richie – chair, expert panel

There will be no 'positive' discrimination, however, the study will keep in mind that the marine environment is of higher importance to some communities than to others.

Jane Dalgliesh – Scottish Executive

There will be no positive discrimination, however, a different emphasis may be placed upon the effects upon some areas of Scotland or sectors dependent upon the marine environment.

John Fern – economist with expert panel.

Need to get the concepts and terminology correct from the start of the project.

Suggest breaking down the various interactions and elements of the marine environment and its various uses, into features, activities, locations and pressures to assist with our analysis:

Features - can be economic, natural, biological and non biological;

Activities - can be market or non market driven, formal or informal, sustainable or exploitative, and regulated or unregulated;

Locations - can be coastal or marine, inshore or offshore, above, on, in or below the water, and on or in the seabed; and

Pressures - can be man made or natural, internal or external, recognised or unrecognised (visible or invisible).

- We must ask ourselves whether we think that we are currently achieving sustainability?
- If we are not, then why not?

It will be necessary to draw upon the experience gained from a number of management initiatives in the marine environment over the last 10 years. We must also be open to the possibility that earlier management approaches may not address all of the elements necessary for sustainability. We will look at the perceived effectiveness of a number of current management mechanisms and approaches and assess them by agreed sustainability criteria.

The Scottish Executive's commitment to sustainable development in the marine environment is a new opportunity to look at a number of possible management approaches, for example, rights based approaches to management. It is important to learn the lesson from previous and ongoing initiatives that all management mechanisms require sufficient funding in order to be effective, and to guard against the temptation to allow some key elements of marine resource management, e.g. fisheries, to dominate this study.

Mark Jennison – BMT Cordah Ltd.

- What do we want to achieve?
- What do we think sustainability of Scotland's marine environment is, is it more than can be achieved by ICZM?

The *Seas of Change* strategy produced by DEFRA lays out a number of high level objectives for achievement of sustainable development in the marine environment.

- Are the Sea of Change objectives applicable to Scotland's marine environment?

The Scottish Coastal Forum (SCF) has also put together a series of strategic objectives for Scotland's marine environment.

- Do the SCF objectives support the aim of sustainability in the marine environment?

There are a host of other objectives for the marine environment, which we could also discuss and assess for suitability for achieving sustainability. This project is hoping for a steer from this seminar as to where we should place our focus.

- What targets do we need to achieve in order to say we are achieving sustainable development?
- What are the key content and process weaknesses of existing management?
- Can a new management mechanism help, or should we restructure existing measures and mechanisms?

Martin Cox – Scottish Coastal Forum

Can see areas in common between this project and that of the SCF, but can also see where both projects would also be complementary.

- Has anywhere in the world achieved sustainability?

Carl Lundin - marine management specialist, expert panel

There are lots of examples and some guidance available regarding indicators of sustainability. It is hoped that this project will build upon this existing work and develop indicators applicable here.

Ron Bisset – sustainability specialist, expert panel

Generally it cannot be said that sustainability has been achieved, but it is possible to check progress towards sustainability against agreed indicators. These indicators will allow you to assess progress towards addressing issues which it is felt affect sustainability. These indicators may be altered as circumstances change and new targets are set.

John Fern – economist, expert panel

The system must be dynamic, and as such, there will never be a period when sustainability is 'achieved'. However, we can set and achieve objectives to address issue affecting sustainability. Work will be based upon the best knowledge and ability at the time of asking.

Sustainability is a subject where the less you know, the better and more achievable it sounds.

- Can economic growth ever be sustainable?

Carl Lundin – marine management specialist, expert panel

There are a number of features which can be measured as indicators of sustainability, such as the wealth of communities using marine resources, the health of biological resources (stocks) utilised. It would be possible to compile a regular report on the state of the marine environment to allow assessment of progress towards targets to be assessed, and to inform the setting of new targets.

Martin Cox – SCF

We must remember that the time-scales involved in achieving some sustainability targets may be very long, and will generally be beyond the short term political time-scales within which management measures generally have to operate.

Bill Ritchie – chair, expert panel

The time-scales will vary from issue to issue, some will be considerably longer than others.

Anne-Marie Smout – biological recording in Scotland.

A big problem with setting and achieving targets, particularly biological ones, is the lack of long term datasets. We need to think carefully about what we want to measure as indicators in the achievement of sustainability targets, and how we will go about measuring them. Currently a lot of long term data collection relies upon volunteers operating with little or no funding.

John Baxter – Scottish Natural Heritage (SNH)

The long term trends report recently produced by SNH, highlighted the lack of long term data in a number of areas. Other elements of relevant work are ongoing, for example, SNH and partners are currently looking at changes in the distribution of organisms in the marine environment of the UK.

With respect to the high level objectives set in the *Seas of change* report, they sound very good, but are low on components that can be objectively measured. For example, one objective is

To conserve / enhance the overall quality of our seas –

- What do we mean by terms such as *Quality* when applied to the marine environment?

If we are to set meaningful targets for sustainability, we will need to set quantifiable targets / measures by which to gauge progress.

Anne-Marie Smout – biological recording in Scotland.

It is important to remember that as well as collection of environmental data, the data must also be stored and managed. This will require funding.

Dominic Counsel - SNH

Need to focus on the environmental management and planning, assess current work and decide if we are currently going in the right direction to achieve sustainability.

- What mechanisms do / do not exist, to allow planning of resource use currently?

Bill Ritchie – chair, expert panel

There is likely to be a broad spectrum of approaches which are suitable in Scotland, some sectors may require extensive planning, while for others, the minimum of management may be required.

Colin Wishart - THP

Does not feel that the focus of management in Scotland's marine environment has been focused mainly on nature conservation and biodiversity. A lot of effort has been made to manage the aquaculture industry, as one of the main industries in Scotland that straddles land and sea.

Graham Shimmield – SAMS

We should consider the extant use of marine resources in Scotland. If we set aside aquaculture, fisheries and natural heritage related resources, what is left is somewhat limited.

Energy policy and the utilisation of the potential of the marine environment for renewable energy sources is likely to be a significant factor in the achievement of sustainability in the marine environment in future.

Darren Kindleysides – Royal Society for the Protection of Birds (RSPB)

There are a number of legislative, regulatory and policy drivers to marine resource management, not just nature conservation and biodiversity.

Callum Duncan – Marine Conservation Society (MCS)

Tourism is a major contributor to the economy of Scotland. The perception of the quality of Scotland's 16500 km of coastline and its wider marine environment is very important in this context.

Bill Richie – chair, expert panel

Need to remember to take into account a range of cultural, historical and archaeological resources.

John Fern – economist, expert panel

Considerable thought is required in order to define the resources for management.

Cathy Tilbrook – SNH

It is important to make sure that the work already done by the SCF and others to identify resources is fully utilised.

Stephen Midgely – Forth Estuary Forum (FEF)

ICZM is a better understood concept than integrated marine resource management (IMRM). However, there are problems associated with any management system that sets up man made boundaries for management.

Bill Ritchie – chair, expert panel

An ecosystem approach to management makes a nonsense of any man created boundaries to management.

Graham Schimmiel – SAMS

Land reform is a big issue currently in the terrestrial environment

- What is the role of the Crown Estate in the marine environment, with respect to resource management and local ownership?

Question was noted, but not discussed further.

Carl Lundin – marine management specialist, expert panel

A number of factors determine the approach to and effectiveness of marine resource management:

Technical knowledge of the managers;

Legal traditions of the area being managed;

Social cohesion of the communities utilising the resources managed; and

Traditions of maintenance of the resources.

Globally we are seeing a decline in marine resources, with habitat destruction, declining fisheries catches and the replacement of natural environmental systems with man made / man influenced systems.

Decrease in the availability of some resources (e.g. fisheries) has seen a corresponding increase in the value of the remaining resource, leading to further human pressure on the resource.

The ability to manage marine resources is generally still weak, although there have been improvements in the last 10 years. A number of approaches to management are discussed here.

A spatial planning approach including the use of protected areas can be effective. Some key elements are outlined below:

Spatial planning can be undertaken in a number of ways, and the methods used can vary from country to country;

New technology such as GIS and GPS makes demarcation of areas managed easier now than previously;

Open access is gone for most sectors and is unlikely to return, however, the design of planning measures for specific issues is only possible with a high degree of knowledge about spatial use and intensity;

Local enforcement is necessary to make management cost effective;

Globally a network of marine protected areas is appearing, mirroring a trend in the terrestrial environment.

Rights based management

A number of international examples exist of this approach, such as use of individually transferable quotas for fisheries (ITQs);

Driven by self interest generally in financial gain;

This form of management is economical to manage, as the resource is a source of revenue;

Can be divisive as exclusivity of rights can lead to divisions between users and wider population; and

Generally used to manage static rather than migratory resources.

ICZM

Issues driven initiatives work best, and the issues must be comprehensive;

Must involve all stakeholders;

Difficult to develop a focus on longer term issues;

Hard to achieve without good mechanisms for management of the resource base;

Can be complex and costly.

Ecosystem approach

No examples of this in the marine environment;

Norway is beginning to develop ecosystem approach to coastal management; and

Perception is that this approach will be difficult to achieve and may be costly.

Sectoral approach

Works well in some countries and not in others. Depends largely on traditions of government;

Top down, command and control approach, which although centralised is relatively democratic;

Traditional approach to management which is well understood;

Requires closely defined objectives; and

Can be costly to manage.

Marine National Parks

Can be effective at meeting specific objectives;

Can be effective at improving status of a number of resources;

Can be relatively costly;

Requires management ability to make work; and

Can limit economic benefits.

Marine protected areas

Could be very effective, especially if the protected areas are based upon ecosystem distribution;

Other options

Community based management;

Taboo systems based on religious or traditional beliefs;

Open access (predominant in the open seas);

Close access (for example, in military areas);

Provision of concessions to outside interests, in return for their management of resources.

Conclusions

There must be scientific basis for management decisions;

The precautionary principle must be applied;

Sectoral management should be strengthened, especially fisheries management;

Improvement is needed of selected fisheries resources;

Pilots are required of rights based management options;

Technology should be promoted that limits resource damage; and

Successes must be disseminated widely.

Questions

Hamish Morrison – Scottish Fishermen's Federation

Rights based management does exist in the form of traded quotas for amount of resource recovered in a number of areas, including Iceland. In the Faeroes, rather than quotas for amount of resources obtained, a system of quotas for access to the resource is used, in the form of quotas for days at sea.

There are problems with quotas, as there are with other methods of management. They work best with some specific, non mixed stocks, but not for mixed stocks. In addition, management of the quota system can be costly.

Kevin O'Carroll – Department of Trade and Industry

Two biggest impacts on the marine environment are fishing and shipping, both of which are generally managed at an international level. This would make it difficult for Scotland to locally manage these sectors.

Although Scotland can manage fisheries to 12 miles, ecosystems often extend beyond this limit. Management of areas outside 12 miles is very difficult, and the UK has written to the EU asking for resolution to problems associated with management of such areas as the Darwin Mounds.

Callum Duncan – MCS

- Are there examples where a suite of measures are used for management?

Carl Lundin

The majority of marine management is via a suite of measures, however, very few countries have had any great success at marine management.

Cathy Tilbrook – SNH

- Are there examples of spatial planning in the marine environment from Norway?

Colin Wishart – THC & Carl Lundin

Norwegian approach to coastal planning is very different to Sweden. Norway has local planning and management, while Sweden has a very top down approach.

Sectoral planning can work very well in some countries.

Steve Atkins – Irish Sea Project

- With possible extension of planning below low water mark – are local authorities the most suitable planners of management in the marine environment?

Carl Lundin

Local authorities might be the best managers of the marine environment, but this will depend upon how well they currently manage the terrestrial environment. There are good and bad examples of local government management, and the efficacy can change with a change in regime after elections.

Bill Ritchie

- Who pays for management?

Carl Lundin

Funding should come from any surplus generated during management of the resource. Otherwise management will depend upon overall national fiscal status and will be vulnerable to fiscal collapse.

Martin Cox

- Is it a good thing that there are currently no plans to extend local authority planning control in the marine beyond the aquaculture sector?

Carl Lundin

It is generally undesirable if management isn't integrated, however, it may be alright if other users are generally benign.

Ron Bisset – sustainable development, expert panel

- What do we need to do to achieve sustainable development – Presentation.

Tony Wilks – Scottish Coastal Forum

Marine management in Scotland is approaching the point beyond which voluntary methods will not be effective, because of a lack of authority and resources to see through actions. Formalised resourcing will be necessary in future.

Helen McLauchlin World Wide Fund for Nature (WWF)

- If we are not to have a Scottish equivalent of the Randall Bill, how will a review of current management in Scotland help with future management?
- How will we manage / safeguard some already depleted marine resources?

Jane Dalgliesh

There is no provision for the marine environment in the Nature Conservation Bill launched in Scotland last week. The SE doesn't think that an equivalent to the Randall Bill is necessary, however, it will remain one of a number of options.

Kevin O'Carroll

The Randall Bill was mistimed, in that it clashed with the ongoing Review of Marine Nature Conservation (RMNC) and Review of Marine Consenting (RMC) in England. An equivalent of the Randall Bill may re-emerge in England.

Martin Cox

There is a need to consider how long any pilot studies will need to run for if they are answer questions about management options. There will be a temptation to look at small discrete areas, which perhaps have existing management. Currently unmanaged areas should also be considered.

Hamish Morrison

There may be political support for the use of the current Shetland Box area as a pilot study area.

Cathy Tilbrook

Pilots shouldn't be focussed only on geographical areas. We should take the opportunity to assess how legislative and institutional changes could influence future management.

Helen McLaughlin

- Will there be a further opportunity for stakeholder input to this study

Mark Jennison

At the moment the final report will go directly to the SE with no provision for further comment, so that question would be best addressed to the Scottish Executive.

Bill Ritchie

In conclusion:

- Links with existing coastal fora are extremely important;
- Some older 'traditional' management systems may be appropriate for some sectors;
- Devolution of responsibility for management to a local level may be an important factor in future management;
- Input from regulatory bodies such as SEPA must be obtained as soon as possible.